Kansas 4-H Clothing Leader Notebook

Level II

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Kansas State University Agricultural Experiment Station and Cooperative Extension Service
Clothing Personality
*Clothing & Textiles, Level II, Me and My Body*

What Members Will Learn . . .

**ABOUT THE PROJECT:**
- Recognize personality by how we dress
- To identify six personality styles reflected in dress
- Types of body forms—endomorphic, mesomorphic and ectomorphic

**ABOUT THEMSELVES:**
- Confidence in selecting clothing to enhance their body type
- How clothing choices express their values
- Appreciation/acceptance of their body type

**Materials Needed:**
- Copies of Member Handout
- Old pattern books, magazines or catalogues
- Scissors to cut pictures

**ACTIVITY TIME NEEDED:** 60 MINUTES

**ACTIVITY:**

Clothing conveys much about our personalities. It is one of the most important clues from which first impressions are made. Our society has developed ideas as to what is best and right for people to wear. These ideas are adopted or rejected by each of us. As we form our values we may reflect, reject, or accept a portion of these ideas. Through experimentation, our clothing personality is developed. Each one of us says something by the way we choose to dress. Today, we are going to think about our own “clothing personality.”

Once you know the unique aspects of your figure you can then choose garments that enhance the best qualities of your body.

There are many figure types. Your figure type is a result of your genetic makeup and cannot be changed (like having blue eyes). Your weight and size may change a great deal over your lifetime, but your basic figure type remains the same from childhood through adulthood.

The basic figure types include:
- Endomorphic—body soft/fluffy in appearance.
- Mesomorphic—hard, muscular body appearance.
- Ectomorphic—slender, long body appearance.
Some individuals do not have the self-confidence to choose flattering styles and colors. Instead, they choose unflattering or “popular” styles and colors in an attempt to disappear or not be noticed.

Following, are some suggestions to enhance your body type:

Short—add height by using:
- simple, uncluttered silhouettes
- vertical lines
- plain colors
- small prints and plaids
- narrow belts of self fabric or same color

Short and slender—add height and fullness by using:
- vertical lines
- gently flared skirts and dirndl skirts
- frilly collars
- soft, full sleeves
- belts of contrasting colors

Short and full—to add height and slenderize use:
- large vertical details
- princess lines or semi-fitted silhouettes
- monochromatic color schemes
- contrasting collars to emphasize face and neck
- simple necklines
- jacket length to between waist and hipline

Tall—to balance height and horizontal emphasis use:
- separates
- long jacket lengths
- contrasting colors and large plaids
- bulky fabrics
- large pockets, wide belts

Tall and full—to reduce size and accent height use:
- easy-fitting silhouettes
- unbroken vertical or diagonal lines
- contrasting collars to emphasize face and neck
- V necklines
- elbow- or wrist-length sleeves

Tall and slender—to balance height and add width and curve use:
- soft, rounded silhouette
- horizontal detail
- turtleneck collars, soft scarves
- puff or long, full sleeves
- wide belts

In addition, you can emphasize or de-emphasize any figure part with the use of color, texture, or line. See Design Basics, Me & My Body, Level I.

Ask members to tell their figure type and their parents’ figure types. Have each member suggest one type of dress that will enhance his/her body type. If the member is wearing one of the mentioned suggestions be sure to point it out.
Whether you believe it or not, values are reflected through the clothing we wear. Do parents and youth ever disagree on appearances? One reason may be the values each person holds. Often, youth feel a style is a statement of independence from the parents, and the parents feel the style represents values they dislike. Think for a moment how you would feel if the President and the First Lady showed up for a public appearance dressed like current rock music stars. Would the public’s opinion of them change? Do you think the outfits would become news material? That is how important your choice of clothing is.

As you grow older, you will experiment with various styles and probably find yourself comfortable with one or two style themes. Within these styles you can dress up or down to suit the activities in your life. You will achieve more clothing for your dollar by purchasing garments in your personality style than you can by accumulating many different styles. Some clothing may look terrific on you, but you will not wear it as often if it doesn’t fit your clothing style.

Clothing personality styles:

**Dramatic**—enjoys bold, colorful dressing. More use of large and spectacular accessories, such as jewelry, ties, scarves, etc. This person is often the first to try a new style and may tend to have a more ectomorphic body build. Everyone notices when a dramatic person walks into the room.

**Sporty/Natural**—enjoys dressing with a relaxed or outdoorsy feeling. Simple clean-cut lines. Easy care hairstyle. Lots of denim, khaki, and button-front styling. The natural person may also love animals, have freckles and prefer to be outside. The sporty/natural will find their style of clothes in Land’s End and Eddie Bauer catalogs.

**Gamin**—a smaller version of sporty/natural. The gamin figure looks almost elf-like or a bit impish with a twinkle in the eye. The gamin looks great in pixie hairstyles and sporty/natural clothing styles.

**Classic**—enjoys dressing in a tailored look. Classic sweaters, pleated skirts or pants. This person is naturally very neat; everything is in place and stylish in moderation, yet with everything.

**Romantic**—likes dressing with lots of fullness and softness. This person chooses large plaids, large printed designs on fabrics, and large details (females like large ruffles, lace and bows; males like baggy pants and full-cut shirts & sweaters). This person may enjoy spending more time on appearance and has a tendency towards the endomorphic body type.

**Ingenue (on-jin-u)**—fine featured and soft spoken, usually ectomorphic, looks good in small details.

As we adopt a style, we must use it within a wide range of activities. These include such things as school, leisure, hobbies, religious, cultural and formal occasions. At all of these occasions our dress reflects our
personality as well as our values, such as material comfort (economics), external conformity (belonging to a peer group), individuality (being unique), or equality of social status (wanting to belong to a different group).

**DIALOGUE FOR CRITICAL THINKING:**

**Share:**

Q. Name two clothing styles.
A. Dramatic, sporty/natural, gamine, classic, romantic, and ingenue.

Q. Name the three body figure types.
A. Endomorphic, Mesomorphic, Ectomorphic

**Process:**

Q. Why is it important that we accept our body type?
A. We should learn to dress to enhance our body type, since it will always affect how we look.

Q. How do you feel when someone compliments you about your clothes?
A. Answers will vary, i.e., happy and content, embarrassed and uncomfortable.

Q. Some things can be changed, and some things cannot. What are things about ourselves that we can change? What cannot be changed?
A. We can change our hair color and style, our weight, and style of dress. We cannot change our body type.

Q. What clothing personality does a person you admire have?
A. Answers will vary.

**Generalize:**

Q. Why is it beneficial to know your clothing personality style?
A. Makes purchasing easier and faster (because you have fewer garments to consider), longer satisfaction with the garment, helps with assurance that your money will be well spent.

**Apply:**

Q. How could a short, pear-shaped person enhance his/her figure when selecting clothing?
A. Dress in similar color tones with contrast color at neck. Style should be semi-fitted. Smaller print or vertical details would be acceptable. Smooth and not bulky fit through the hips and shoulder pads on a pretty collar can draw the eye up to the face for a more flattering look.

Q. What did you learn today that will effect the next clothing decision you will make?

See body types in lesson “Design Basics,” Level I
GOING FURTHER:
• Have members look through magazines and name clothing personality styles.
• Have members evaluate two to three adults for their styles, then have them interview these adults as to why they choose the clothing they do.
• Have members design garments to illustrate the different personalities that can be expressed and dress paper dolls.
• Have members make a poster illustrating the various personality types that are expressed in clothing and display it in a fabric store, school, fair, etc.

REFERENCES:
Clothing Speaks, Marilyn Stryker and Jereldine Howe, Kansas State University Cooperative Extension Service, Kansas State University, Manhattan, Kansas 66056
Clothing Speaks, Joyce Ann Smith and Norma Deyo Pitts, Ohio State Cooperative Extension Service, Ohio State University

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Figure Type Information

There are three basic body shapes: endomorphs are round, mesomorphs are muscular, and ectomorphs are lean and long. Everyone is a mixture of each, in differing proportions.

**Mesomorph**—Usually is husky and strong. This individual might be best at contact sports or weight lifting but can be restricted by heavy muscles.

**Ectomorph**—Opposite of the husky build and may be prone to injury. With conditioning, this person is good at long distance running, hiking, endurance sports. Also excels at activities requiring agility, such as gymnastics, dancing, diving and many court games like tennis or handball.

**Endomorph**—Has an excess of body fat, is not fast and lacks agility. Exercises such as pull-ups may be difficult for this person, but the fat body floats high in the water and therefore well-suited to all water sports.
What Members Will Learn . . .

ABOUT THE PROJECT:
- How to blend and combine colors, hues, and values
- The importance of proportion and scale of accessories

ABOUT THEMSELVES:
- How to make decisions using design elements
- Ability to identify colors they like to wear and colors they like in a home environment

Materials, Resources Needed:
- Poster paint, (red, yellow, blue, black, white)
- Water color brushes or small soft bristle brushes
- Medium weight white drawing or construction paper, cut into three different shapes (circle, square, triangle) per member—three each of two different shapes and six of the last shape
- Scissors
- Plates, pie plates, or cookie sheets for mixing paint. NOTE: paint may stain plastic plates
- Glue
- Plastic sheets or newspapers to protect work surface
- Paper towels
- Color Wheel poster page
- Copies of Activity Sheets
- See alternative activity and materials needed in Leader Note at bottom of page 144

ACTIVITY TIME NEEDED: 60 MINUTES

ACTIVITY:

After we study the elements of design, we must begin to use these principles as we choose clothing for ourselves. The basic elements of design are color, line and texture. A well designed outfit contains a pleasing balance of all of these. Too much of any one element as well as too little can ruin the overall look when it is put together on you.

Accessories you choose may enhance or detract from the garments or their attractiveness on you. Careful consideration of the scale (size), color, and texture must be done to ensure they look the very best possible. Accessories are like garments—what looks good on one person often looks quite different on another.

Leader Notes

Have members sit around a work area. Have the area covered with newspapers and ready for the painting activity. Have members introduce themselves and describe their favorite accessory. You begin.

Pass out member activity sheet, Kaleidoscope Colors, for information purposes. Wait to complete the activity until discussing material on the next page.
Today, we are going to discuss more about color. We have talked about
color terms. Let’s review them. **Hue** is the color name—examples include
red, blue, yellow, purple, pink, and so on. **Value** is the lightness or dark-
ness. A light value is called a “tint.” A dark value a “shade.” **Intensity** is
the brightness or dullness of a color. To lessen the brightness you add
some of the complement color.

There are rules that help us to combine colors in pleasing ways. By using
these “harmonies” you can blend different colors with the result being
pleasing to the eye.

First, you should understand the color wheel. The wheel begins with three
basic hues (red, yellow, blue) all other colors are made from these.

Next, the three basic hues are mixed to form the secondary hues. Red +
Blue = Violet, Red + Yellow = Orange, Blue + Yellow = Green.

Next, we create tertiary colors. These result from mixing a primary plus
one of it’s neighboring secondary colors. (Red + Violet = Red-violet)

Let’s talk next about different color schemes or harmonies. Remember,
within these schemes different values and intensities can be used which
will make the combinations almost endless.

Four major color harmonies are: (each harmony could include different
values and intensities of each hue)

- **Monochromatic**—“Mono” means one and “chromo” means color. So
  a monochromatic harmony is based on one hue (various tints and
  shades of red).
- **Analogous**—Analogous means similar. Analogous or related colors
  are similar to each other because they share a common hue. Red-
violet, red, and red-orange are examples. They are next-door-neigh-
bors on the color wheel.
- **Complementary**—Complementary harmonies are based on hues
directly across from each other on the color wheel. Orange and blue
or red-orange and blue-green are examples. These are contrasting
hues and tend to make very striking color combinations.
- **Triadic**—A triadic color scheme is based on any three hues which are
  equally distant from each other on the color wheel. Examples include
  red, yellow, and blue or orange, green and violet.

Proportion and scale are other important elements we must consider when
designing for ourselves. For any outfit to look correct all its parts must be
in proportion or balance. What accessories can be out of proportion.
(Discuss clunky shoes, earrings too large or small, scarf too large, patterns
not balanced, fit out of proportion, etc.)

Scale is the size of an item. Proportion is the balance of an item compared
to another. Generally, accessories should be of a similar scale as the
person wearing them. If you are small keep accessories small. Accessories
should also be in proportion to the garment, its pattern and it’s form.
Accessories include shoes, belts, ties, scarves, handbags, hats, jewelry and hair ribbons. Depending upon the fabric color and print, the illusion (appearance to the eye) may be different than the actual scale.

**DIALOGUE FOR CRITICAL THINKING:**

**Share:**
- Q. Name the complementary color for blue.
  - A. Orange.
- Q. Name the three primary colors.
  - A. Red, blue, yellow.
- Q. What does analogous mean?
  - A. Similar colors—they share the same hue.

**Process:**
- Q. What are your favorite colors? Are these the colors of your clothes? Why or why not?

**Generalize:**
- Q. What criteria for selecting color of your clothes have you used in the past? Will you use different decision-making skills in the future?
- Q. How do you feel when sitting in a blue room? a red room? a white room?

**Apply:**
- Q. How will you use color differently in the future to create a certain “look” at home? When selecting clothing?
  - A. Answers will vary, i.e., color gives an illusion that enlarges or condenses a room. The size of furniture versus the space available. The print pattern size on upholstery and even window size, shape, and placement. Wall arrangements, their shape, texture, size and placement.

Pass out member activity sheet, “Let’s Learn to Plan a Wardrobe,” and have members complete it and share with the group.

If you have extra shapes and colors, allow the members to pick a color scheme and glue it onto the sheet and label. Discuss why they chose this scheme and if they would use this in an outfit or in their environment. Discuss that colors we like are not always ones that are the most flattering to wear. But in our surroundings, we can use these favorite colors freely. Light and bright colors tend to advance or enlarge, and dark and dull colors tend to recede or diminish.
Leader Notes

Take a few minutes and allow members to critique themselves and make recommendations of accessories that would look good with the outfit they are now wearing.

GOING FURTHER:
- Have a blank sheet with various wall hanging pieces for members to cut out and experiment placing them on the wall.
- Have members bring paper dolls and clothes. Or help them make their own and experiment on proportion and scale with the doll clothes.
- Have members bring old accessories or collect some from garage sales. Allow members to try these on and judge for scale and proportion. You may want to use this for a swap meeting for members to bring an accessory they don’t like to see if they can swap for one they like.
- Use color collars that are available from some Extension offices to determine how color can be used to enhance appearance.
- Use the color collars and present a program at a retirement home or senior center.
- Help members to tie-dye T-shirts or other garments using design elements and what they have learned about color.

REFERENCES:
Home Survival and Design, Kathy Vos, 4-H Youth Development Programs, University of Wisconsin, 328 Lowell Hall, Madison, Wisconsin 53703
Clothing Leader Guide, Texas Agriculture Extension Service, Alma Fonseca and Ann Beard, Clothing and Textile Specialists, Texas A&M, College Station, Texas

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COLOR AND ME
CLOTHING & TEXTILES, LEVEL II, ME AND MY BODY
Activity Sheet

Kaleidoscope Colors

Materials needed:
- Dull posterboard 11 × 14 inches
- Poster paints—red, yellow, blue, black, white
- Paint brush
- Ruler
- Scissors
- Compass

Cut a 3-inch strip from the long side of the posterboard. You now have a 3 × 14-inch strip and an 11-inch square. The square will be used to make a color wheel and the strip will be used to make a sample of color values.

Color Values
Select a primary color, white and black. Divide your strip into seven 2-inch divisions. Your first value will be white. Your last value will be black. Your middle value will be your primary color. In the upper two blank spaces, mix the primary hue with varying amounts of white to get lighter tints. As you mix the paints, you will be able to see that there are a large number of tints that may be derived from the mixing of a primary hue and a neutral.

The last two spaces will be filled with darker shades of the primary hue. Mix the primary hue with the black neutral. Notice again the many shades that can be derived from this combination.

Color Wheel
Find the center of your 11-inch square. Use a compass to draw an 11-inch circle. Decrease your compass to draw a 10-inch circle inside the 11-inch circle. Decrease your compass to draw an 8-inch circle inside the 10-inch circle. Cut away the corners of the 11-inch circle with a pair of scissors.

Divide the middle ring into 12 equal sections. Place the primary hues in a triad. Place the second triad of secondary hues. On either side of the primary and secondary hues, place the intermediate hues. All secondary and intermediate hues are made by intermixing primary hues, secondary hues, and intermediate hues.

Using a ruler, draw straight lines in the center of the circle to show the triads of primary hues and secondary hues. On the outer ring, label the intermediate colors.
COLOR AND ME
CLOTHING & TEXTILES, LEVEL II, ME AND MY BODY
Activity Sheet

Let’s Learn to Plan a Wardrobe—Teenage Boy or Girl

The pieces: knit shirt, sweater, button-down shirt, slacks, jeans, jacket.

Decide your basic color. Color/design the garments (solid, stripe, print, plaid) for a coordinated grouping. Be creative. Design garments you would like.

Now you are ready to see how many different outfits you could have with these six pieces. How would you accessorize these outfits? Be creative using basis design elements.

1. ____________________________________________________________________________________
2. ____________________________________________________________________________________
3. ____________________________________________________________________________________
4. ____________________________________________________________________________________
5. ____________________________________________________________________________________
6. ____________________________________________________________________________________
7. ____________________________________________________________________________________
8. ____________________________________________________________________________________
9. ____________________________________________________________________________________
10. ____________________________________________________________________________________
Discovering Myself

Clothing and Textiles, Level II, Me and My Body

What Members Will Learn . . .

ABOUT THE PROJECT:
  • Ways people express themselves
  • “Social graces” and why they are important

ABOUT THEMSELVES:
  • Everyone has feelings that need to be recognized
  • To appreciate and value their own feelings
  • The importance of non-verbal messages

Materials Needed:
  • Worry wallet, envelope containing small strips of paper. Include these directions, sealed, to be opened at the end of the week in member’s home
  • At the end of the week, separate the worries into two piles. Those that happened and those that did not happen. Then take the stack of those worries that happened and separate into two more piles—those that you could do something about, and those over which you had no control. Look at the strips remaining in the “those you could do something about.” Was your worry time worth it?
  • Tape recorder and tape to record introductions

ACTIVITY TIME NEEDED: 60 MINUTES OR COULD BE USED FOR TWO SHORTER LESSONS

ACTIVITY:

Besides their dress and grooming, there is another way people tell us about themselves when we first meet them. This message comes through their “body language.” The way you say hello, your facial expressions, and your eye contact all convey a message about you. Your use of etiquette (manners) also will make either a good or poor impression on those you meet.

Anyone can learn and practice social graces. It costs nothing but your time and rewards you greatly.

Always remember to use magic words such as “please,” “thank you,” and “excuse me.” When these words are used often and sincerely, they truly are magic. They are kind words that produce courteous responses from others. Whenever someone does something for you say “thank you.” This someone may be a stranger who has opened a door for you, or maybe your mother has done something for you. Who it is is not important; your expression of thanks is.

Leader Notes

Have members sit in a comfortable place.
Have members introduce the person on their right, after having a few minutes to ask this person their name and favorite activity. Tape record these introductions for analysis.
“Please” should be used whenever you are making a request of someone. This someone could be your little brother, whom you are requesting to remove his dirty tennis shoes from your clean rug, or your friends, whom you are asking to pass the pepper. The word “please” changes a command to a request, which will probably bring results without bad feelings.

“Excuse me” or “pardon me” should be used when you must impose a discourtesy on someone. This discourtesy might be walking in front of them, interrupting them, or leaving them. By saying “excuse me” you are asking their permission to do whatever you need to do. These “magic words” are verbal manners you should learn to use without having to think about it. Use them easily, often, and sincerely! They are words that help you express your consideration of others and label you as a kind and gracious person.

Graceful body movement and a pleasant voice are important in presenting a pleasing image. No matter how much time you have spent to make yourself look good, it can be completely destroyed by awkward movements and posture. An unpleasant voice and poor grammar can be just as bad. Remember the way you sit, walk, stand, hold your arms, etc., tells others a lot about you. Development of your voice, diction, and grammar is just as important as graceful body movement.

If your voice has an unpleasant quality, such as high pitch or raspiness, it is irritating. Clear pronunciation and correct word usage are as important as an adequate vocabulary. Avoid using slang words in place of “yes” and “no.” Learn to use your voice so that it is truly representative of the person you are. Evaluate your voice with a tape recorder.

A pleasant smile and eye contact are the most important items to remember about facial expressions. When talking with anyone, it is important to look at him or her. This does not mean a constant stare that may be uncomfortable over a long period of time, but an interested and alert reaction, which is natural. Eyes that are wandering around the room or are glued to the floor cannot express interest or reaction. If you want people to really listen to what you are saying, you must direct the words to them by looking at them.

Develop the practice of wearing a pleasant expression. A happy or pleasant expression on the face makes you much more approachable. Everyone responds to a smile because it makes them feel good. Think about the people you know that do smile and contrast their image with the nonsmilers. To which category do you belong?

Learn to give and receive compliments. If you honestly admire something, say so. Let others know how you feel but do not try to be anything you are not when giving a compliment. A direct and simple expression of admiration is the best kind.

For many, receiving a compliment is more difficult than giving one. Never argue with the one offering the compliment. For example, can you think of
a time when someone said he really liked your outfit and you responded by pointing out how old it was, its poor fit, or how shabby it had become? What you are doing is attacking the taste of the person complimenting you. It would be much more appropriate for you to smile and say “thank you,” or “thank you, I like it too!” to express your pleasure for your admirer’s thoughtfulness. Such a reply is easy to offer, and it shows you as a sensitive and gracious person.

Introductions will happen throughout your life. The most important rule to remember is to make sure you always introduce people in your presence that do not know each other. This includes introducing yourself if others fail to do it. There are rules about whom should be introduced first but we will save those for another time. (Level II, Personal Presentations) These rules are no good if you are too nervous to use them. So for now, a simple “Mom, this is my 4-H leader Mrs. Smith” or “Hi, my name is Dave” is perfectly acceptable. Practice this often so it becomes easy for you.

By practicing all of the above you will gain poise in new social situations. These manners are to help you feel comfortable in situations that are not normal for you. However, we want to turn now from the social graces to the inside part of you that makes you unique and special. This part is your feelings or emotions.

Each one of us has the ability to experience feelings. In fact, that is one thing that makes us different from animals. It is the joy of living to experience positive feelings. Likewise, it is awful to feel the full extent of painful feelings. At times feelings can overwhelm us. Feelings are real to the person that is experiencing them. Nothing is worse than someone telling you “You don’t feel that way.” With any type of feelings they are easier to deal with (especially sad, angry, frustrating types) when shared with someone else that cares.

Sometimes it is hard to share feelings. They can be so scary because they seem so strong. It is important for each of us to be able to express our feelings - the better we can explain our feelings, the better those around us can help us find solutions to our problems or share in our joys. This seems to be easy for some people, but for others it can be very difficult. All people and families are different, but all of us can learn to better share our feelings if we practice.

It is important to talk about our feelings, because if they are not shared, physical symptoms can put stress on your body until you become physically sick in some manner. By sharing our feelings with a friend of any age, we “work out” the stress so our bodies can relax.

Most people, when asked what they like best about their friends, reply “They are understanding.” Humans have a need to seek out others that listen and care for them. That is what being a friend is. Usually our closest friends are those we feel will listen to our feelings and respect them. We can and should have many different friends - some we enjoy because they are fun to be with, others share a common interest, and others may teach
This could be a good place to stop the lesson this week. The next lesson could start with a discussion of their worry wallet results. (Have members make a worry wallet—envelop containing blank slips of paper. For each worry during the week, they are to record it and put it into the wallet.)

Take a moment and ask each member to talk about a strong feeling they have had. Tell them it is OK to say whatever they felt at that time or they feel about it now. It is important that you begin. Help them to verbalize the emotion - for example - if they say “I was mad because my friend ignored me.” - ask “were you hurt?” (rejected, angry, jealous, etc.) Maybe all of these? Ask them if they ever feel their emotions physically? Give examples - butterflies if nervous, choking if sad, tight jaw when angry, etc. Let members give other examples.

Take a moment to role play with the members. Help them express their feelings and not repeat what they think you want them to say. After you give them the role play (have the roles written out to give to members), ask them what feelings they could have. Then ask them how they could state it nicely to the other person in the situation. Allow members to offer other suggestions.

Once we can recognize our feelings and practice social graces, the last thing we need to learn is how to share these feelings with those that are not friends, but we need to talk with about a certain problem or situation. Sharing feelings with friends will lighten the load, but feelings are often our clue that a situation needs to be dealt with. By combining what you know about speaking up and doing it nicely - many of your problems can be handled with minor discomfort to you and others. But this takes practice!

1. Your uncle wants to dance with you at your aunt and uncle’s wedding dance. He is the loud embarrassing type. Many of your friends from school are there. Talk about how you feel and what you would say to your uncle.

2. One of the kids in your class has called you a name—it was in front of all your classmates. Talk about how you feel.

3. You have saved money to buy the “coolest” tennis shoes. On the second day you wear them another student comments “I can afford three pairs of those in different colors. I would never wear the same pair two days in a row.” What would you say?

4. Your parents are still buying junk food after you said you want to start eating more nutritiously. How would you feel, and what would you say?

**DIALOGUE FOR CRITICAL THINKING:**

**Share**

Q. What do social graces mean to you?

Q. What is important to remember about your facial expression?

A. Pleasant smile and/or eye contact.

**Process:**

Q. Why do we need to talk about our feelings?

A. To help find solutions to problems, to share our sorrow and joy, to ease physical symptoms that result from bottled up feelings, to enjoy life to its fullest, to form lasting bonds with caring others.

Q. Do boys have the same feelings as girls?

A. Boys and girls can have the same feelings. (i.e., sadness, tenderness, joy, anger, competitiveness, etc.)
Q. Can crying be beneficial for everyone: male/female, old/young? Why do you think that?
A. Allows us to release strong emotions physically. This helps us stay healthy. Everyone needs to cry at times.

Generalize:
Q. What did you learn about how you handle your feelings?
A. Answers will vary. Encourage members to talk about how people vary in their ways of expressing their feelings.

Q. How can your learning to express your feelings affect a relationship with a friend? with a sibling? parent? other adult (teacher)?
A. There can be a more honest, open sharing and understanding of feelings. Since we cannot know what someone else feels unless they express themselves as we listen for understanding.

Apply:
Q. How would you use what you learned in this lesson if you went to a fancy restaurant? If you brought a friend home from school?

GOING FURTHER:
• Invite mental health worker to visit and talk with members about feelings.
• Have members list ways to deal with feelings: talking it out, exercise, ignoring it, help them to see what the outcome will be by the various choices they make.
• Present a badge made from construction paper, gold seals, and ribbon to the member who uses the most magic words at the meeting or who gives the best compliment.
• Keep a diary of when and how you used “magic words” for one day.
• Role play different types of handshakes (wet dishrag, bone cruser, pump handle, straight arm shake, cooze squeeze, octopus grip). Discuss what is wrong with these handshakes, then practice an appropriate handshake.
• Prepare and present a funny skit to your club or other group about handshakes and other greetings.
REFERENCES:
Clothing Leader Guide, Texas Agriculture Extension Service, Alma Fonseca and Ann Beard, Clothing and Textile Specialists, Texas A&M, College Station, Texas
Shapedown, Just For Kids, Laurel M. Mellin, M.A., R.D., University of California, San Francisco, Balboa Publishing, 11 Library Place, San Anselmo, California 94960

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What Members Will Learn . . .

ABOUT THE PROJECT:
• What posture is
• What poise is

ABOUT THEMSELVES:
• Practicing poise and posture will give members more self confidence
• Good posture and poise are skills anyone can develop with practice
• The importance of verbal and non-verbal communication

Materials Needed:
• Video camera and TV, optional
• Bowl, containing posture poses on paper slips, cut apart and folded
• Full-length mirror

ACTIVITY TIME NEEDED: 45 MINUTES

ACTIVITY:

How many of you have ever seen a mime? Have you ever played the game charades? How do people tell us something when they don’t use words?

As you can see, people do communicate without using words. We can use gestures which involve our hands or we may use facial expressions to get a message across without using words. That is called non-verbal communication.

The way we hold our body is called posture. A person that stands straight and tall conveys a feeling of self-confidence and authority. Unfortunately, good posture does not come naturally to most people. The best way to develop good posture is to practice it, not only when standing, but also when walking and sitting.

Suggested posture poses:
• Leaning forward, leading with head.
• Measured, steady pace.
• Dragging feet, in no hurry.
• Slouching body, eyes looking downward.
• Bouncy step.
• Exceptionally erect body, chin slightly lifted.
• Graceful and flowing step, as a model.
• Heavy and thumping step, too far apart.
• Nervous, darting steps.
• Briskly exciting, arms swinging vigorously.

Leader Notes

Welcome members and have them sit in a comfortable place in a circle. Have each member introduce themselves and act out a feeling without using words. Have the other members guess the feeling. You begin.

Have members draw a “posture pose” out of the bowl, taking turns dramatizing the following postures. Have the other members tell what that posture suggests about that person. (Do one as an example first.)
Leader Notes

- Comfortably straight posture, hips tucked under.
- Protruding stomach and rounded slumped shoulders.
- Swaying hips.

As you can see, posture tells things about a person they may not even be aware of. Besides giving a positive first impression, good posture also allows for better figure proportion, better fit for clothing, and allows the insides (organs; i.e., stomach, lungs, heart, intestines) of your body to work better.

When standing, good posture means that your head, shoulders and hips are in a vertical straight line. (Allow members to practice. If a full-length mirror is handy this can be helpful.)

When walking, good posture means head above shoulders, arms swing naturally. Legs should swing from the hips with feet parallel and reasonably close together.

To sit, place one leg against the edge of the chair seat. The other should be slightly ahead to provide balance. Sit straight down (do not lean forward), lower your body SLOWLY into the chair with back against the back of the chair.

There is one other thing you can do to help develop good posture, and that is to exercise every day. Good posture takes strong muscles and the best way to get strong muscles is to form an exercise habit. Any exercise will help if you do it several times a week. Some exercises include bike riding, swimming, dancing, gymnastics, basketball, running and walking.

Have you ever heard of poise? What does this mean? Poise is the feeling of self confidence a person has when exposed to different and unusual circumstances. It is the ability to think, act, and react under pressure. These actions are positive and so we say the person has poise. Persons that react negatively by getting angry, demanding, whining, or complaining, are said to lack poise.

Poise, like any skill, gets better the more we practice it. To practice poise we must put ourselves into social situations where we need to be well mannered and polite, so we can gain more confidence to continue facing new social situations.

An important part of poise is being able to put your feelings into words. If you only listen and never say how you feel to others, you will quickly find that you do not enjoy yourself or others as much as you should. You have the right to have feelings about many topics. Others are also allowed that right. These feelings do not have to be the same, for everyone has a different view of the world because of different experiences. A person with poise will allow others to disagree, and also be able to kindly state their feelings and not always expect agreement. Always take time to listen to others and if you are unsure of the message, ask them to explain it again. Often misunderstandings come from poor communication. If you
are not sure what someone has said, ask again rather than make assumptions. Good manners include good posture, poise, and making others feel comfortable when you are around.

It is more fun to be with people who have good manners. Therefore, it is easier to make friends if you practice good manners while still being true to yourself. Remember, you do not always need to agree with your friends to still be friends.

- You are demonstrating at county fair days and forgot the paint for your demonstration.
- You are modeling the outfit you purchased when you realize the reader is reading the wrong description.
- You are at a friend’s house where you were just introduced to someone from another school. You have already forgotten their name.
- You are at your grandparents’ anniversary sit-down dinner and you spill your drink.
- Your friend has invited you to spend the night. Your family has no special plans; you just don’t want to go. Tell your friend.
- Continue with others you or members can think of.

NOTE: Sometimes fewer words show more poise than blaming or excuses.

DIALOGUE FOR CRITICAL THINKING:
Share:
Q: How do you develop good posture?
A: By practicing it, by exercising, and other good health habits.

Q: How do you develop poise?
A: By practicing it, trying new social situations, and gaining self-confidence.

Q: What is good standing posture?
A: Head, shoulders, spine, and hips in a vertical straight line.

Q: What is good sitting posture?
A: Place one leg against the edge of the chair seat. The other is slightly ahead. Sit straight down slowly lowering your body down into the chair with your back against the back of the chair.

Process:
Q: Why should we be able to state our feelings?
A: Because they are an important part of who we are and we feel better when people recognize how we feel.

Q: Why is it important to be aware of non-verbal messages?

Generalize:
Q: How does posture influence the impression that other people form of you?
A: Answers will vary, i.e., professional, lazy, hick, ambitious, confident.

Practice role playing the following situations. Stress the need for the members to verbalize their feelings in a positive way.
Q: How does posture affect the way you feel about yourself?
A: Answers will vary.

Q: How does posture affect the way you perform at home, school, work, etc?
A: Answers will vary, i.e., will feel energetic, sloppy, tired, lively, cooperative.

**Apply:**
Q: What will you do differently in the future because of what you learned from this lesson?

**GOING FURTHER:**
- Invite a model to visit to show modeling stances and techniques.
- Have members talk about their most embarrassing moment and what they would do different if a similar situation would happen again.

**REFERENCES:**
*Clothing Leader Guide*, Texas Agriculture Extension Service, Alma Fonseca and Ann Beard, Clothing and Textile Specialists, Texas A & M, College Station, Texas
*Your Appearance Counts*, Louisiana Extension Service
*Strategies for Clothing*, Rae Reilly, Iowa State University, Ames, Iowa 50011

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Personal Presentation—Modeling

Clothing & Textiles, Level II, Me and My Body

What Members Will Learn . . .

ABOUT THE PROJECT:
- Basic modeling steps
- Making introductions

ABOUT THEMSELVES:
- Gaining self-confidence through modeling
- Building self-esteem in social situations by making proper introductions

Materials Needed:
- Copies of Activity Sheet
- Pencils
- Modeling mat (borrow from the Area Extension Office)
- “The Spotlight is On You” video (borrow from the Area Extension Office)
- VCR and TV
- Video camera and monitor (optional)

ACTIVITY TIME NEEDED: 45 TO 60 MINUTES

ACTIVITY:

There are many times each of us must stand before a group alone. It may be at a program, public speaking occasion, or at a ceremony such as a wedding, bar mitzvah, or special ceremony. At these times our personal presentation skills are on display. Just as in any sport, it takes practice to polish these skills. The more polished you become the more confident and impressive you will be. Some people spend much effort in avoiding these situations. However, sooner or later we all must stand before a crowd. You may prefer to spend your effort in practicing good personal presentations skills instead of avoiding those new social situations.

We have talked before about the importance of daily grooming. This, in addition to flattering clothing choices, pleasing body gestures/expressions, and polite social manners, will help you get a head start on a positive personal presentation. When an important occasion comes along, you won’t have to be as concerned about an embarrassing slip-up, because good manners will be second nature to you.

For presentations you know you will do in public, concentrate on the task at hand—not on your feared nervousness. You may be introducing someone, modeling a sewing project, attending a wedding, party or other function, or presenting a talk. Your best confidence builder will be to

Leader Notes

Have members introduce themselves and talk about themselves for 30 seconds. Tell them that it is important for them to be able to talk about their interests, etc., if asked. You begin. After each introduction have other members say what they liked best about the self-introduction and how “poised” (at ease under stress) each member appeared. Do not force members, but strongly suggest they do as much as possible. Keep evaluations positive!
practice what you will do. Just as actors, athletes, and speakers have hours of practice behind the performance, you, too, will be more confident with enough practice.

In those situations for which you cannot practice—like your 30 second introduction—instead of feeling tongue-tied focus instead on the others in the situation. What would they like to know about you? What do you need to know about them? People love to talk about themselves. Remember a good conversationalist does not talk all the time. In fact the person best at conversation usually gets others to talk and they generally talk the least. Think of each person you meet as a treasure chest and you need to find the treasure within them. Ask about common interests and new areas from which you can learn. Also look for diversity (differences) and special things about the other person—enjoy the way they are different. If you are genuine in your interest in others, it will be apparent, and you will seldom experience a stalled conversation.

Also offer recognition whenever possible. People like to be recognized for their outstanding qualities, and they will be impressed that you remember and mention it to others.

Throughout your whole life you will be meeting new people almost daily. Being able to do this easily is one of the first and most important steps in making friends.

When you are being introduced remember to smile because you are happy to be meeting this new person. Try to think about making the other person feel at ease, then you won’t have time to feel nervous or uncomfortable. Remember to be warm and friendly, look the other person in the eyes, be sincere in what you say and either stand up or step forward. In response to the introduction, you might say:

- How do you do?
- Hello, how are you?
- I am glad to meet you.
- I have been looking forward to meeting you.
- How do you do, ___?

You have to find what is most comfortable and natural for you to say. This comes only through practice. The most important thing is to say something! No one wants to feel ignored.

When are introductions necessary? You should always introduce:

- Members of any small group.
- All guests to the guest of honor.
- All guests at a small party.
- Dinner partners.
- Your partner to the host and hostess who have included her or him on your invitation.
- Friends at a dance who come up to speak to you.
- All players in a game involving a few players.
- Any guest whom you bring into your home to all family members.

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When you need to introduce two people, a few simple rules help. When introducing a man to a woman, say the woman’s name first, such as, “Mary Brown, I would like you to meet Jim Oliver.” When introducing an older person to a younger person, say the older person’s name first such as, “Grandmother, this is a friend of mine, Jennifer Davis. Jennifer, this is my Grandmother, Mrs. Smith.” Some other phrases you might use are:

- “please meet ___”.
- “I would like for you to meet ___”.
- “have you met ___?”.

After your two friends have had a chance to speak to each other, it is thoughtful to give them something to be able to talk about. For example: “Mark, I think your cousin goes to school with Eric.”

When introducing a person to a group, do so in the order they are sitting or standing. For the sake of simplicity mention the newcomer’s name first, “Mark, I would like for you to meet, Matt, Jackie, Michael and Chris.” All guys stand and shake hands as they are introduced. The girls may remain seated. Each should say, “How do you do?” or “Hello, ________” or something similar, as his or her name is mentioned.

A woman rises for an introduction when the introduction is made by or to an older woman. A host and hostess rise to greet their guests. They should also shake hands with each guest, both men and women.

What do you do when you forget the name of someone? If there is not time to ask a third person, you will just have to say, “I’m sorry, but I just can’t remember your name at the moment.” An experienced person will supply his/her name without having to be asked when he/she sees your hesitation.

Remember, if you are offered a handshake in greeting don’t ignore it. Grasp the hand and shake it firmly but avoid the bone-crusher grip. Likewise, shake firmly enough that your handshake could not be labeled a dishrag. Usually men put out their hands to shake when they meet other men. When a man is introduced to a woman, she usually puts out her hand first. Gain confidence in your handshaking to make a positive first impression.

After meeting a person, begin polite conversation with a neutral topic. Ask about interests, hobbies, families, school, etc. Also, think about what you would want the other person to discuss. Avoid politics, religion, death, family problems, personal topics that could cause someone to become uncomfortable.

Kissing a relative or friend in public is proper only if you are greeting them or saying good-bye, and it should be brief and discreet.

If you are a boy that wears a hat in public, proper etiquette calls for you to tip your hat whenever you say “excuse me,” “thank you,” speak to, or are
spoken to by a girl. To tip your hat, merely lift it slightly off your forehead by the brim of a stiff hat or by the crown of a soft one, and then replace it.

You should take off your hat indoors if you are being introduced to someone, attending a burial, when a funeral procession is passing, and when the national anthem is playing or the flag is passing.

You always take off your hat indoors. You may leave your hat/cap on in lobbies or halls of hotels, office buildings, stores or churches. And, no matter if you are indoors or out, you should always take off your hat when you are eating.

So far, we have talked about good manners, now let’s discuss and practice some good modeling skills. For girls, the basic stance finds your feet in a “T” position. Right foot forward and weight on left foot. Both feet should be pointing forwards. For boys, stand with your feet apart, squarely under your hips.

To turn: for boys
1. Step forward with right foot, make a half turn to the right, bring left foot around. Your back will be to the audience.
2. Step forward again with right foot, bringing left foot around. You will be facing the audience and will have completed a full turn.
3. Step forward again on right foot and continue down runway.

To turn: for girls
1. Keep your feet in the basic stance. Transfer your weight to the balls of your feet for smoother turning and better balance.
2. With your weight on the balls of both feet, slowly rise so heels are slightly free from the floor.
3. Pivot toward the left until you are turned in the opposite direction.

There may be times that you will be modeling on a stage only and may be required to make a complete pivot more than once. At times, only a quarter or half turn may be necessary. If you remember to always lead off with the same foot, and turn in the same direction, you will find all turns simpler and more natural.

**DIALOGUE FOR CRITICAL THINKING:**

**Share:**

Q. When you introduce someone to a group whose name should you give first?
A. The newcomer.

Q. When may a boy leave his hat or cap on when eating?
A. Never!
Process:
Q. What did you do best in your mock fashion revue exercise?
   A. Answers will vary.

Q. Name one way to help keep a conversation going.
   A. Ask about interests, hobbies, family, look for similarities, differences.
      Try to think what the other person may want to know about you.

Q. Name some subjects that are inappropriate when engaging in polite
   conversation. When and with whom would these be appropriate?
   A. Politics, religion, death, family problems, personal topics that may
      cause someone to become uncomfortable. They are appropriate with
      someone you know well.

Generalize
Q. If you were at a party and you needed to introduce Mr. Smith, your
   neighbor, to John, your younger cousin, how would you do so?
   A. Mr. Smith, please meet John. John, I would like for you to meet Mr.
      Smith. Others may be offered.

Q. What can you do to help everyone feel at ease when a new person
   joins a group, i.e., 4-H club, class?
   A. Introduce the new person to each member. Share information with the
      group members regarding the new member’s interests, etc., so they
      will be aware of similarities to discuss.

Apply:
Q. How is practicing good manners like practicing a sport?

Q. Describe a situation when you have needed to introduce someone.
   What would you do differently next time?

GOING FURTHER:
• Have members role play new social situations. Giving an introduc-
   tion, presentation, or other.
• Have project group present to the total 4-H club the above ideas and
   allow some time at a meeting for persons to get into small groups and
   practice the introductions and conversation starters.
• Take project members to an area nursing home for them to practice
   these techniques.
• Suggest project members teach this lesson to others their own age,
   perhaps their class in school or a community after school program.
• Borrow the color analysis kit from Area office and have members
   select their color season.
REFERENCES:
Clothing Leader Guide, Texas Agriculture Extension Service, Alma Fonseca and Ann Beard, Clothing and Textile Specialists, Texas A & M, College Station, Texas
Clothing Speaks, Marilyn Stryker, Naomi Johnson, and Zelda Zimmerman, Clothing and Textile Specialists, Kansas State University Cooperative Extension Service, Kansas State University, Manhattan, Kansas 66056
Clothes Strategy, Naomi Johnson and Zelda Zimmerman, Clothing and Textile Specialists, Kansas State University Cooperative Extension Service, Kansas State University, Manhattan, Kansas 66056
The Spotlight is On You (video), The McCall Pattern Company, 1991. Order from: McCall Pattern Company, Education Department 9119, 615 McCall Road, Manhattan, Kansas 66502-9919, include check for $19.95

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PERSONAL PRESENTATION—MODELING
CLOTHING & TEXTILES, LEVEL II, ME AND MY BODY
Activity Sheet

Clothing & Textiles Presentation Evaluation Scorecard

Standards for the Exhibitor
1. To understand and demonstrate a wardrobe plan
2. To understand how selected garment(s) and accessories enhance their personal/public presentation
3. To understand the value of this garment/outfit and how it fits into the family’s clothing budget
4. To be able to describe how they have accepted personal responsibility in caring for their garment/outfit
5. To visually demonstrate personal fitness and grooming and clothing/accessories comfort and safety
6. To be able to describe how they have cared for the garment/outfit and how it has proved to fit into their wardrobe plan over time

To be completed by member prior to judging
Attach a photo of the garment being worn

Name __________________________________________ Age __________ Level enrolled __________
Class name ____________________________________________________________________________ Class no. __________

List garments/accessories purchased or made by another person: __________________________________________
_________________________________________________________________________________________________

List garments/accessories constructed by you: __________________________________________________________
_________________________________________________________________________________________________

1. Describe any recycled materials used in your presentation, and your plan for what you will do with this garment/outfit when you are through with it:

2. Describe how you have or will care for this garment/outfit:

3. How do you see this garment/outfit as it compliments your body style and its suitability to your wardrobe needs?

4. (To be completed by members in Levels 3 & 4): calculate the estimated cost per wear of this garment/outfit.

Scorecard

I. General appearance & knowledge—70%  
A. Posture, poise  
B. Personal grooming  
C. Garment condition  
D. Fit of garment  
E. Modeling skills  
F. Accessories used to create a total look  
G. Knowledge of wardrobe plan (see #3)

II. Construction appearance & lifecycle knowledge—30%  
A. Quality of construction  
B. Appropriate finishing techniques used  
C. Plan for clothing care & lifecycle (see #1 & #2)  
D. Able to calculate value per wear (see #4)

Excellent    Good    Fair    Suggestions for Improvement

Additional Comments:

Circle Placing: Purple    Blue    Red    White

31-Clothing & Textiles, Level II
Mystery Stain Removal
Clothing & Textiles, Level II, Care and Maintenance

What Members Will Learn . . .

ABOUT THE PROJECT:
• What a stain is
• When and how to treat stains for successful removal
• What techniques and products are used in stain removal

ABOUT THEMSELVES:
• How they can apply what they’ve learned in identifying and treating
  stains
• Responsibility when spills and stains occur
• Teamwork to contribute to household chores

Materials and Resources Needed: KEEP ALL OF
THESE LAUNDRY AIDS OUT OF THE REACH OF
YOUNG CHILDREN.
• Alcohol (rubbing, denatured or isopropyl) 70 to 90 percent concentration
• Household Ammonia, without added color or fragrances
• Amyl acetate, or non-oily fingernail polish remover
• Bleaches—chlorine, oxygen or hydrogen peroxide
• Detergents—liquid form
• Dry cleaning solvents—sold as spot and stain removers
• Enzyme presoak
• Prewash spot and stain removers
• Rust removers
• Waterless hand cleaner
• White vinegar
• Absorbent materials—white paper towels, facial tissue or lintless white
cotton or rayon cloths
• Aluminum foil
• Cotton fabric samples
• Drying Rack
• Dull knife
• Hot and Cold Water
• Measuring cups and spoons
• Plastic wash tubs
• Sponges
• Spot and Stain Removal for Washable Fabrics, Kansas Extension
  Bulletin C-638
• Stainless steel spoon
• Substances to stain swatches—pen ink, blood, catsup, chewing gum,
  chocolate, cosmetics, fingernail polish, grass, grease or oil, soft drinks
• Toothbrush or other soft bristle brush
• Copies of Activity Sheets
ACTIVITY TIME NEEDED: 45 MINUTES

BEFORE THE MEETING:
Prepare the samples: Prepare 12 × 10-inch swatches using bleached muslin fabric. Apply stains to these fabrics. Use the substances listed above. Using the mystery code symbols found in the activity guide, label each stained fabric using a waterproof, permanent laundry pen. Show examples: i.e., a prepared sample of soft drink stain should look like this.

ACTIVITY:
As we learn to care for our clothing and textiles, one problem we will all face some day is having to treat a stain. Today, we are going to talk about stain removal and what we can do to increase our chances of successfully removing stains that we may get on our clothing. Acquiring skills to care for your clothes will save lots of time and money now and throughout life. Stain removal is one effective means of extending the life of your clothing. When done properly, you can save many garments that may have otherwise been ruined.

Stains are often the reason some garments are no longer worn. Either the stain did not come out or the method of stain removal caused damage to the garment. Stains should be treated promptly with correct methods and products. Remember, stains do occur on clothing worn to school or during other times when a parent is unable to treat or remove the stain. Some stains become more difficult or even impossible to remove if not treated promptly. Research shows that after one week, one-fifth of stains can not be removed satisfactorily. Almost one-half of all stains are impossible to satisfactorily removed three weeks after staining occurred. Removing stains in a timely manner is important!

We are going to talk about instructions and procedures that apply to washable items. If the care label states “dry clean only,” the stain is best removed by a professional dry cleaner. Valuable sources of information are the care label and fiber content labels, which tells us one successful way to care for the product, and information included on the fiber content label helps us determine the most suitable method of stain treatment. Two categories that stains are often classified into are dry or greasy stains and wet or non-greasy stains.

For greasy stains follow these steps:
1. Sponge with dry cleaning solvent or prewash stain remover.
2. Launder and air dry.
3. Repeat until stain is out.

For Non-greasy stains follow these steps:
1. Sponge with cool water.
2. Soak in cool water 30 minutes.
3. Treat with soap or detergent.
4. Launder and air dry.
If the stain is a combination of both, treat first as a greasy stain, then as non-greasy. Never dry with heat in dryer or on line as the heat in many cases will set the stain. If you will be using a stain remover, be sure to test on an unseen portion of the garment to test for colorfastness. When the specific stain is known, you should refer to a stain removal chart and follow the procedures given.

**Summarize Safety Rules**

Remember that one important precaution is to work in a well ventilated room and never mix cleaning agents. These are chemicals that if mixed or used improperly can cause serious harm. KEEP ALL THESE PRODUCTS STORED AND USED AWAY FROM YOUNG CHILDREN. ALSO, DO NOT USE ANY OF THESE MATERIALS NEAR THE SOURCE OF AN OPEN FLAME (I.E., A GAS PILOT LIGHT), AS SOME ARE COMBUSTIBLE.

1. Sponging—place right side down on absorbent cloths. Using another cloth on wrong side, brush from outside to center of stain. Avoid circular motion. Change absorbent pad frequently.


4. Flush—to release stain and remove chemicals from fabric. Clean liquid is poured through stain area to rinse away stain and remove chemicals. As these are removed, a ring may appear, usually in light, smoother fabrics. To prevent, use smallest amount of remover necessary and change blotter frequently. Brush from outside in and blot away moisture before air drying.

Have everyone use their decoded samples. Pass out “Spot and Stain Removal for Washable Fabrics,” Kansas Extension Bulletin (#C-638). Go over safety rules on handout and page 6 of Bulletin. Pass out coded stain swatches and Activity Sheet which contain the safety rules and breaking the code. Tell members they are going to be trying some stain removal techniques. Have members decode and identify the stain they will be treating. Make sure they have correctly identified the stain they will be treating.

Teach stain removal techniques: Demonstrate as you explain.

Members should now refer to the “Spot and Stain Removal for Washable Fabrics,” page 9, and treat their stain accordingly. Launder to see if stains are removed. Congratulate members for successfully removing the stain or having made a good attempt. Remind members that some stains are difficult to remove and some are impossible to remove and to be prepared to accept some failures.

Members interested in going beyond learning good maintenance skills may want to consider careers in clothing care, including the research on textiles and the development of new fabric finishes and care techniques.
DIALOGUE FOR CRITICAL THINKING:

Share:
Q. When is the best time to treat a stain?
A. As soon as possible.

Q. What did you do to remove a stain?

Q. Was it easy or difficult to do? Why?

Process:
Q. What can you do if you are home alone and stain an item?
A. Read the care label to determine fabric care and fiber content. If washable, treat according to greasy or non-greasy method. If dry clean only, have an adult take to the dry cleaner.

Q. Why is stain removal important?
A. Save money by allowing garment to continue to function in your wardrobe.

Q. What are dangers involved in stain removal?
A. Use of chemicals, inhaling fumes, mislabeling bottles, possible poisonings, never to be used around young children.

Generalize:
Q. How can promptly removing stains reduce the amount of waste going into our landfills?
A. The product can be used longer, which reduces the total amount of waste generated.

Q. How would you go about deciding what stain you have and how to treat it?

Apply:
Q. Considering that you will not experience 100 percent success in removing stains and that professional stain removers employed by reputable dry cleaners have much more experience, knowledge, and access to materials than an amateur, what are some circumstances when you would send the stained product to a professional?
A. When cleaning methods recommended on the label are those that you can not do, i.e., leather cleaning; or the product is very expensive, i.e., carpet; or your cost of failure is very high; or when tested on an inconspicuous area, the dye bleeds or transfers or in some other way leaves a spot.

Q. What will you do differently as a result of what you’ve learned from this lesson?
GOING FURTHER:
- Visit dry cleaners for stain removal lesson.
- Read labels on cleaning agents for active ingredients and potential cautions.
- Assemble stain removal packs for home use that include guidelines for removal.
- Conduct experiment “Discover Types of Stains”
- Do more stain removal, trying a variety of stains and circumstances.
- Keep records as suggested in Mystery Stains Part II Sheets.

REFERENCES:
*Care and Maintenance of Clothing*, 1990 Computer Program, Linda Heaton, Clothing and Textile Specialist, University of Kentucky, Agriculture Engineering Department, Lexington, Kentucky 40546-0276, and Nadine Hackler, Clothing and Textile Specialist, University of Florida

*Stain and Odor Removal from Washable Fabrics*, Bette Jo Dedic, Agriculture Engineering Department, Lexington, Kentucky 40546-0276

*Capable Kids Can and Spot and Stain Removal for Washable Fabrics*, Deanna Munson, Clothing and Textile Specialist, Cooperative Extension Service, Kansas State University, Manhattan, Kansas 66506

*Care, Self Concept, Consumerism, Looking Good Inside and Out*, University of Wisconsin, Cooperative Extension Service, Madison, Wisconsin 53703

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MYSTERY STAIN REMOVAL
CLOTHING & TEXTILES, LEVEL II
Activity Sheet

Safety Rules

Rule 1: Read the product label carefully. Note how to use, store, and dispose of product and container. Pay particular attention to warnings or hazards.
- DANGER/POISON indicates high toxicity
- WARNING indicates moderate toxicity
- CAUTION indicates slight toxicity

Rule 2: Use a product only for its intended purpose. Look for ventilation precaution and protective clothing or equipment needs.

Rule 3: Do not mix household chemicals. Toxic gases, heat, or explosion could result.

Rule 4: Store laundry products in original containers with all label information. Keep out of reach of children and pets and in recommended temperature and storage conditions.

Rule 5: Dispose of leftover household chemicals and their containers properly. Follow label precautions and hazardous waste recommendations.

In addition to these general safety precautions, review and follow the important precautions listed on page 8 of the “Spot and Stain Removal for Washable Fabrics” bulletin.

Break the Code and Destroy the Evidence Mystery Stain

Decode the secret word on your fabric sample using the following position code to identify your mystery stain.

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>J</th>
<th>N</th>
<th>O</th>
<th>P</th>
<th>W</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>E</td>
<td>F</td>
<td>K</td>
<td>Q</td>
<td>R</td>
<td>S</td>
<td>X</td>
</tr>
<tr>
<td>G</td>
<td>H</td>
<td>I</td>
<td>M</td>
<td>T</td>
<td>U</td>
<td>V</td>
<td>Z</td>
</tr>
</tbody>
</table>

- check with your leader to see that you have decoded your stain correctly.
- using the Bulletin “Spot and Stain Removal for Washable Fabrics” locate the stain you are attempting to remove on pages 10-12
- follow the procedure on page 9 of that bulletin to remove that stain

Congratulations. You have either successfully removed your stain or have made a good attempt. Realize that some stains are difficult to remove and some are impossible to remove. Be prepared to accept some failures. You are now ready to remove many stains that accidentally occur. You also have the necessary skills to prepare soiled articles for laundry.

FOR MORE INFORMATION
“Gone With The Wash,” video and educational packet, Maytag company, Consumer Education, Newton, IA 50208, 1987
Clothing Care Video, The Learning Seed, 330 Tesler Road, Lake Zurich, IL 60047, 1986
Laundry Guidelines C-65, Kansas State University, Umberger Hall, Manhattan, KS 66506
Spot and Stain Removal for Washable Fabrics C-638, Kansas State University, Umberger Hall, Manhattan, KS 66506
MYSTERY STAIN REMOVAL
CLOTHING & TEXTILES, LEVEL II
Activity Sheet for Going Further Activities

Discovering Types of Stains, Part I

Materials Needed
Two small glasses, or 2½ pint jars
Cleaning solvent
Two aspirin
Small stick for stirring

1. Place one cube of sugar, one aspirin, and a tiny pinch of solid fat or lubricating oil in a glass or jar containing water. Stir with stick. Observe results.
2. In the other glass or jar, put a small amount of cleaning solvent. Place one cube of sugar, one aspirin, and a tiny pinch of solid fat or lubricating oil in the cleaning solvent. Stir with stick. Observe results.
3. Discuss what this experiment tells about removing stains:
   • Sugar and aspirin dissolved in water shows that stains containing these or similar substances should be treated with water. Solid fat or lubricating oil remained solid; shows that water could not effectively remove oil/grease stains.
   • Solid fat or lubricating oil dissolved in the cleaning solvent shows that oil/grease stains can be removed with a cleaning solvent. Sugar and aspirin remained solid; shows that carbohydrate stains, such as, soft drinks and some other types of stains cannot be removed with a cleaning solvent.

Mystery Stains, Part II

Materials Needed
3-inch squares of white or light-colored plain fabric that has been washed (old T-shirt or sheet). Good stains to try: chocolate, grass, coffee, dirt, mustard, lipstick, blood. Have two samples of each stain, let one dry overnight.

Spot and Stain Removal for Washable Fabrics, C-638 bulletin from Kansas State University

Cleaning Supplies
1. Practice removing the stains. Use your information from Part I and Spot and Stain Removal for Washable Fabrics.
2. Try to be scientific. Use different water temperatures and several stain removal methods on each type of stain.
3. Keep notes on a chart like the one below:

<table>
<thead>
<tr>
<th>Type of stain</th>
<th>Age of stain</th>
<th>Fiber types</th>
<th>Methods used (Best method in bold face)</th>
</tr>
</thead>
<tbody>
<tr>
<td>soft drink</td>
<td>damp</td>
<td>cotton blend</td>
<td>sponge with cold water; sponge with dry cleaning solvent</td>
</tr>
<tr>
<td>chocolate</td>
<td>1 hour</td>
<td>cotton</td>
<td>dampen, work in dish soap, rinse and dry; sponge with dry cleaning solvent; apply dry spotter; flush; dry; rinse;soak in enzyme (presoak); rinse</td>
</tr>
<tr>
<td>chocolate</td>
<td>day old</td>
<td>cotton</td>
<td>dampen, work in dish soap, rinse and dry; sponge with dry cleaning solvent; apply dry spotter; flush; dry; rinse;soak in enzyme (presoak); rinse</td>
</tr>
</tbody>
</table>

4. Try to identify the mystery stains.
5. Discuss mystery stains:
   • which stain is easier to remove: the dry or fresh one? why?
   • is it easier if you know what the stain is? why?
   • does the fiber content of the fabric make a difference?
   • what would you do for stains on carpet or upholstery?
MYSTERY STAIN REMOVAL
CLOTHING & TEXTILES, LEVEL II
Activity Sheet

Discovering Types of Stains, Part I, continued

**Hint:** Set up two work stations and have two teams experiment and report their results.

**Resources:** *Stain Removal from Washable Fabrics*, North Central Regional Extension Publication #64 (available from your county Cooperative Extension Office).

**More Ideas:**
- Make a poster with stain samples that shows the effects of different treatments
- Learn more about how detergents work, or the purpose of specific agents used in stain removal
- Make your own stain removal kit for use at home
- Give a demonstration to others on stain removal methods

**To Do On Your Own:** Do several family washings, then report and discuss problems and concerns, such as, never emptying pockets and unreported stains. Discuss how your family can share in the laundry workload.

Compare the cost of shirts done at the laundry with the cost of doing them at home. Consider the cost of detergent, energy and time spent washing and ironing, as well as the finished product.
Basic Mending Techniques

Clothing & Textiles, Level II, Care and Maintenance

What Members Will Learn . . .

ABOUT THE PROJECT:
- How to repair a garment instead of throwing it away
- Basic mending skills
- Cost savings of mending versus discarding

ABOUT THEMSELVES:
- Satisfaction of self-mending personal items
- Self-confidence in assessing the need for clothing repair
- Their ability to perform a basic mending task

Materials, Resources Needed:
- Copies of the Member Handouts
- Various samples to attempt mending tasks

ACTIVITY TIME NEEDED: 45-60 MINUTES

ACTIVITY:

Often, mending is a chore that is put off indefinitely. The appeal of mending fades in comparison to purchasing. However, mending is a necessity that can have big payoffs later. By keeping clothing in good repair, that clothing can save valuable clothing dollars and allow your wardrobe to last longer. Before you begin mending, you must examine the garment and ask yourself these questions.

Questions to ask before mending:
1. How extensive is the damage?
2. Do I have the skill to repair or must I ask someone else to do it?
3. Is it worth repairing? (age, fashionability, fit, and use)
4. How much time will it take to repair?
5. Can I afford to replace it?
6. Will I wear it after mending?

If upon examining the garment damage and use, you conclude that mending is worth the effort, you must then determine the repair needed. All basic mending supplies should be kept together and all members of the household, male and female alike, need at least a basic mending kit.

Repairs may vary from basic, simple, and quick to more creative and time-consuming, depending on the location and type of damage.

Leader Notes

Have all members sit around a comfortable table or room. Be sure everyone knows each other. If not, begin by introducing each member and having them tell a favorite garment that was in need of repair one time.

Pass out copies of the member handout, Basic Mending Kit and Methods to use when mending. Review handout with members.
TYPES OF MENDING:

Preventive Mending
This type of mending is done upon purchase to delay major mending. It includes things like clipping and tying loose threads, securing buttons with thread shanks, sewing outerwear buttons with a reinforced button on the underneath side, securing snaps and hooks and eyes with double threads, restitching seams, especially ones that will receive stress or are split/raveling, repair raveling button holes, check and resecure hem. (Further directions to complete many of these repairs are included in activity sheet.)

Basic Mending
May include some of the above procedures. In addition it would include:

- Darning—“reweaving” the fabric. Can be machine or hand done. Good hand darning is time consuming and requires much patience and skill, and is usually best done by a skilled professional. Dry cleaners can sometimes provide such services. Machine darning is more noticeable and will vary by machine. Follow instructions in your sewing machine guide to learn how to darn by machine. TIPS: Threads must be a close match to garment color. If none match, choose one shade darker than fabric. Tweeds, plaids, and textured fabrics darn more invisibly. Use lighter-weight thread than the weight of the fabric to darn. For denim, use matching navy or blue thread on top and gray in the bobbin and loosen the upper tension. If area needs reinforced after darning, use zigzag or decorative stitch. If it is a large area to darn, a patch or applique may be the best solution.

- Patching—Suitable for use on areas when damage is large or cannot be darned. Evaluate the garment as to the beginning criteria to decide best method for patching and most suitable materials to use. Materials that might be considered are self-fabric, contrast fabric, lace, or trim. Methods for patching include fusing, gluing, hand or machine stitching, or any combination of the above. TIPS: Clean garment before patching. Purchase iron-on patches that are compatible with the fiber color and texture. Use fusible web to make iron-on patches. Make patches at least 1 inch larger than the area to be patched. Surface patches look neater and last longer if edges are hand or machine stitched. When applying hand-stitched invisible patch, use single thread. By trimming damaged area to a square or rectangle shape, application and stitching are easier. For invisible patches cut patch fabric from same grain and design as the damaged area. Secure with matching thread. Decorative patches can give the garment a new feel.

- Replacement—This requires the removal of a section or part of a garment so a new one can be installed. This includes replacements such as zippers, elastic, waistbands, etc. This usually requires more time and a fair amount of skill.
DIALOGUE FOR CRITICAL THINKING:

Share:
Q. Do you like to mend clothes? Why or why not?
Q. What is a simple mending technique? A difficult one?

Process:
Q. How does mending function like recycling?
A. Use again, save resources of time, money, landfill space.

Q. What ideas does this give you about mending clothing?
A. Answers will vary.

Generalize:
Q. What kind of personal qualities does it require to properly mend clothing?
A. Patience, desire to save, good hand/eye coordination, etc.

Q. What would you consider before deciding to mend a garment?
A. Its use, age, extent of damage, skill to repair, cost to repair, replace, or do without.

Apply:
Q. How will you use this information in the future in making clothing decisions?

Q. What are some real life situations when you have observed mending skills were needed?

GOING FURTHER:
- Use Member Handout “Methods to Use When Mending,” and practice some mending skills.
- Members may want to volunteer services to mend for elderly in care home or apartments.
- Members may want to assemble basic repair kits for themselves or others.
- Have a “fix it” day to mend and repair clothing. Members bring items from home and repair. Supplies: items to repair, mending tools.
- To do outside the meeting: Interview three people to learn what items most often need repair. Share your findings. Supplies: paper, pencil.
- Show or collect pictures from magazines that represent creative repairs.
- Make a display of different methods of mending and repairing clothes.
- Demonstrate methods for repairing various items of clothing.
- Have a “Clothing Repair Clinic” for those who cannot do for themselves.
- Volunteer at an organization such as Salvation Army or at a clothing drive to help with clothing repair.
Leader Notes

- Volunteer at a nursing home or for a shut-in to mend or repair clothing.
- Make a scrapbook of ideas for pediatricians’ waiting rooms that relate to self-help clothing for children. (Examples: large buttons, zippers, pockets, patches, etc.)

REFERENCES:
Care and Maintenance of Clothing, 1990 Computer Program, Linda Heaton, Clothing and Textile Specialist, University of Kentucky, and Nadine Hackler, Clothing and Textile Specialist, University of Florida
Care Self Concept, Consumerism - Looking Good Inside and Out, Kathleen E. Voos and Cynthia Jackson, University of Wisconsin Cooperative Extension Service
Clothing Leader Guide, Ann Beard, Alma Fonesca, Teresa Criswell, and Melia Hunter, Texas Agricultural Extension Service, Texas A&M University System, College Station, Texas

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BASIC MENDING TECHNIQUES
CLOTHING & TEXTILES, LEVEL II, CARE AND MAINTENANCE
Member Handout

Basic Mending Kit

Basic Mending Kit
Portable box or basket
Hand needles—assorted sizes (3/9)
Stainless steel pins
Safety pins
Scissors
Glue stick
Liquid fray preventer
Thread—five basic colors: white or beige, navy, brown, black, medium gray
Thimble

Additional mending supplies
Snaps—assorted sizes
Hooks and eyes
Seam ripper
Needle threader
Seam gauge or 6-inch ruler
Pin cushion
Assorted buttons
Fusible bonding web
Iron-on mending tape
Bodkin
BASIC MENDING TECHNIQUES  
CLOTHING & TEXTILES, LEVEL II  
Member Handout

Methods To Use When Mending

Split Seam Repairs
One of the most common mending tasks is to repair a split seam. Of course the easiest remedy is to repair with machine straight stitching. However, a sewing machine may not be available when you need to make the repair.

Try to determine the cause of the split seam and repair the garment so the seam is strengthened. Some stress seams in garments wear out and split before others. These include seams in the crotch, underarm, and pockets. As a preventative measure, these seams should be reinforced. Some seams may split because the garment is too tight. The seam may need to be let out a bit to add extra space. The thread in seams may wear out and break if the thread is all cotton and the fabric is long-wearing polyester. When repairing, check the fiber content on the label, and use the same fiber thread. Seams in knits often split because they were sewn with a straight stitch instead of a stretch stitch, or with thread that was not strong enough to “give” with the fabric.

After you have determined the cause of the split seam, there are two methods of repair.

**Machine-stitch:** first remove loose threads from the seam. Overlap stitching about ½ inch at each end of the broken seam. If the seam needs reinforcing, stitch another seam ⅛ inch from the original seam, inside the seam allowance.

**Hand-stitch:** using needle and thread, secure ½ inch from broken thread and use a backstitch to repair. The backstitch is one of the strongest hand stitches. It is especially useful for repairing hard-to-reach seams that have ripped. It has the appearance of a machine stitch on the right side, but the stitches overlap on the wrong side. With right sides together, following the seamline, bring the needle through the fabric to the upper side. Take a stitch back about ¼ to ⅛ inch, bringing the needle out again ¼ to ⅛ inch forward on the seamline. Keep inserting the needle in the end of the last stitch and bringing it out one stitch ahead. The stitches on the underside will be twice as long as those on the upper side.

Hemming Repairs
Repairing a hem that has pulled out only takes minutes. You can make temporary emergency repairs with double-faced mending tape or glue stick. Non-sewing repairs can be made with fusible web strips. A hem repaired with fusible web can be washed and drycleaned. Hems can be permanently repaired by hand-stitching or machine-stitching. When hand-stitching, use a blindstitch for woven, ravelly fabrics finished with seam binding or an overcast edge; a catchstitch for flat hems in pants, knits, and heavy fabrics; or a slipstitch for woven fabrics with a turned-over edge.

Machine-stitching takes less time and is sturdier than hand-stitching. A machine blindstitch provides an invisible hem. Follow your sewing machine manual for instructions. A straight-stitched hem shows on the right side. It is used to hem and finish the raw edge in one step or to add decorative detail.

Button Repairs
To prevent the loss of a loose button, resew it as soon as you notice threads that are starting to fray. Check all other buttons at this time.

If you lose a button and cannot find a perfect match, you can rearrange the buttons on the garment. Place the “odd” button near the hem, where it will be less noticeable.
Methods To Use When Mending, continued

It may be necessary to replace all the buttons if the missing one cannot be matched. Always select buttons the same size and type as the original buttons, so they will fit the buttonholes.

When a button is torn off, it may leave a hole in the fabric. If this happens, put a patch on the fabric before sewing the button back on. Follow these steps: (1) Cut off any loose threads around the hole. (2) Cut a piece of fabric, the same color as the garment and a little bigger than the hole, to use as a patch. (3) Put the patch between the facing and outer fabric. (4) Sew the edge of the hole to the patch using small stitches sewn close together.

Buttons should be sewn on with a shank. The shank raises the button away from the garment to allow for the thickness of the buttonhole. The shank should be \(\frac{1}{8}\) inch longer than the thickness of the fabric to allow the buttonhole to lie smoothly when the garment is closed. (See Lesson, “Sewing on a Button,” Level I.)

Match the color of the thread to the color of the buttons. Use a crewel needle (large eye) for easy threading. Use four strands of thread to save time. Sew on the button with two stitches through each hole.

Tears, Cuts, and Holes
Repair rips, tears, cuts, and holes as soon as possible. What starts as a worn spot or small tear may become a hole. The longer it is ignored, the larger it becomes.

It is possible to repair rips, tears, cuts, and holes without sewing by using fusible interfacing, iron-on mending tapes or fabric, or fusible web with a patch of matching fabric. The fusible prevents further tearing or raveling and will barely be noticeable on most fabrics. On lightweight or sheer fabrics, however, fusibles add stiffness and bulk that may not be desirable. Always test the fusible on a hidden area of the garment before making a repair.

Patches can make your clothes look new. Use brightly colored appliques or quilted patches for a decorative effect. Consider machine-stitching if fusing the patch will add too much stiffness to be comfortable. Machine-stitching takes longer, but is softer than fusing. Hard-to-reach areas that need patching may have to be hand-stitched with a backstitch or blanket-stitch.

To blanket-stitch a decorative patch, use three strands of embroidery floss or a single strand of buttonhole twist. After securing thread under patch, bring needle to right side. Hold thread loop down with thumb and bring needle through patch and garment and over thread. Pull up the stitch. Continue around the patch, making stitches \(\frac{1}{8}\) to \(\frac{3}{8}\) inch apart. Secure thread on the inside.

Creative Repairs
Turn repairs into design features. Disguise tears or holes with lace, ribbon, pockets, or appliques.
What Members Learn . . .

ABOUT THE PROJECT:
• Tools used in pressing
• Why pressing is important
• Safety precautions when using heat

ABOUT THEMSELVES:
• Their appearance tells others how they feel about themselves
• Their ability to master a task safely
• How family members can work together to accomplish household chores

Materials, Resources Needed:
• Steam/spray iron
• Ironing board
• Copies of Member Handout with illustrations or these following items:
  Tailor’s Ham and/or pressing mitt
  Press cloth
  Sleeve board
  Seam roll
  Point presser/clapper
• Various fabrics 10 × 10 inches square
  Cotton muslin
  Polycotton muslin
  Corduroy
  Acetate/delicate fabric

ACTIVITY TIME NEEDED: 30 MINUTES

ACTIVITY:
Not too long ago when your grandmothers were your age, ironing was a major chore. For most families it consumed one whole day a week with mother and all the children helping. It not only took hours and hours of time but a strong back as well. Clothing had to be starched and ironed with heavy metal irons. The work was slow and tiring as well as hot, especially in the summer time.

Most of us don’t enjoy ironing and because of advancements in irons and fabrics today we don’t spend as much time doing this task. Electricity served to lighten the weights of irons which has been one major improvement. Also new fibers (man-made) and finishes (perm-press) have reduced the wrinkling of garments which decreases the need for ironing. Many...
people even consider ironing before purchasing an item. If it will require ironing they don’t buy it. Most people however will have some items that at least occasionally will need ironing. If you ever attempt any home sewing project you will definitely use an iron for pressing. The right equipment for all your pressing/ironing needs, whether you are sewing or ironing your laundry, makes a big difference in the finished appearance and the ease of the task. Today, we will introduce you to the iron, when it is used and how to safely use it.

Ironing can make a garment look crisp, fresh and new. The lack of ironing can give a dishevelled, sloppy look. Ironing does take some time but can be worth the effort. The neat appearance that results gives the impression that here is a person that takes pride in their appearance. It says I respect myself and want you to respect me also. Pressing when sewing is an absolute necessity and makes the difference between an item that looks “homemade” or looks like it was purchased at a store.

Ironing and pressing are often used to mean the same thing. They are two different methods of using the iron and it’s important to know the difference.

**Ironing** means gliding the iron over the fabric with pressure and is usually used on whole garments. Iron with straight strokes lengthwise or crosswise to the grain of the fabric. Diagonal or circular strokes can stretch the fabric.

**Pressing** is raising and lowering the iron on a small area without a gliding motion, using minimum pressure. Lift and move on to another section. Use a pressing technique for details and intricate areas or during construction.

CAUTION: The iron is an electrical appliance that gets hot! Never forget that you are in a situation that you can get hurt. Follow these safety precautions:

- Always turn off an iron when finished or if called away (phone call).
- Never use around a sink of water or if water is on the floor.
- Unplug a steam iron when filling with water.
- Check cord for frayed edges and replace immediately if seen.
- Never play around iron and ironing board.
- Plug into and out of wall sockets by grasping plug—never use cord.
- Never touch fabric immediately after pressing—it can be hot enough to burn.
- Use only with adult supervision. Don’t iron when parents are not at home.
- Never iron over the cord.
- If you are burned, run cold water over the burn immediately and tell your parents.

**Pressing tips to use when sewing:**

1. Do in batches—sew as many areas as possible before breaking to press.
2. Follow pattern directions.
3. Press each stitched seam before crossing with another.
5. Remove pins to protect iron.

Ironing tips:
1. Do in batches.

Different fibers and finishes need different temperatures for best results. To know what temperature to use, read the care labels for recommended safe procedures. If no mention of ironing is listed then it is safe to iron, you may steam or spray at any temperature. As a general rule most natural fibers need more pressing and man made fibers require less. Special durable and permanent press finishes (added after the fiber was woven) may not need any ironing or if needed, may call for a cool iron. Let’s see how the samples that you have respond to ironing.

There are some other pressing tools that may be handy for you to acquire as you have additional ironing needs. These include:
Sleeve Board—looks like two small ironing boards attached together.
Used for pressing seams and details of small areas (sleeves, necklines).
Point Presser/Clapper—hardwood appliance with two pieces attached together appliance. Used to press seams open in corners and points.
Used in tailoring.
Tailor’s Ham or Pressing Mitt—used for curved areas, sleeve caps, darts, curved seams, collars. They are both firmly packed cushions, the mitt fits over your hand.
Seam Roll—a firm cylindrical cushion for pressing seams. The bulk of seam is pressed to the side so no seam imprint remains on the right side.
Press Cloth—prevents iron shine and used for applying fusible interfacing.
Needleboard—(or a self fabric or fluffy terry towel) to prevent flattening when pressing napped fabrics.
Table Top Ironing Board—small version of the floor type but sits on a table top. It saves space and is portable. Handy to keep in sewing area.
Hand steamer—lightweight iron providing concentrated steam at a low temperature setting. No press cloth is needed when using a steamer.

DIALOGUE FOR CRITICAL THINKING:
Share:
Q. What is the difference between pressing and ironing?
A. Pressing is in small area, little pressure. Ironing is gliding over large area using pressure.

Q. Do you like to iron or press clothes? Why or why not?

Q. What are some tools used for pressing?
A. Iron, sleeve board, point presser, tailor’s ham or pressing mitt, seam roll, press cloth, needleboard, or hand steamer.

Have members take the sample, tell its fiber content and finish, if any. Then have them press to see how it responds. First use dry heat then add spray or steam. A spray starch may be used on one or more samples to show added stiffness or flaking if napped fabric.

Show each item as you explain or use member handout for members to follow along.
Leader Notes

Process:
Q. When is a neat appearance especially important?
A. Always, but special occasions like church, family gatherings, weddings, funerals, dances, parties, job interviews, dates, fashion revues, etc.

Q. What are three safety precautions when using the iron?
A. Never use near water, plug in and out with plug not cord, don’t touch fabric immediately after ironing, for others refer to lesson.

Q. When might you do a lot of pressing?
A. Answers will vary, but some type of sewing project should be a common answer.

Generalize:
Q. No matter what kind of iron you use, what do they all have in common?
A. They get hot, and can ruin fabric, burn you, or start a fire if used improperly.

Q. If you do not have some of the special ironing tools (i.e., press cloth, tailor’s ham, etc.) what might you do?

Apply:
Q. What losses (financial, personal, physical, emotional) might a family and/or community experience as a result of a fire started by irresponsible ironing practice?

Q. How would you feel if you lost all your belongings while living in an apartment building or college dormitory that burned down because a neighbor left a hot iron on an article of clothing?

Q. What are other heat-producing appliances in your home that require safe use?

GOING FURTHER:
• Discuss different parts of the iron and their use.
• Practice correct techniques for pressing various items of clothing, i.e., skirt, blouse, pleated garment, jacket.
• Role play safe and unsafe use of the iron.
• Bring and clean irons.
• Visit a store alteration department, a tailoring establishment, or a drycleaners to observe pressing skills.
• Do a sensitivity experiment using different temperature settings on the iron and fabrics of differing fiber content.
• Take a field trip to compare various irons, features, and costs.
• Leader will demonstrate the proper use of all pressing/ironing equipment.
• Set up an exhibit in a laundromat of swatches of fabric pressed at too high temperatures.
• Iron for someone in a nursing home or for someone else who cannot iron.

REFERENCES:
Singer Sewing Essentials, Sewing Reference Library, 1984 Cy DeCosse Incorporated, 5900 Green Oak Drive, Minnetanka, Minnesota 55343
Clothing Leader Guide, Ann Beard, Alma Fonesca, Teresa Criswell, and Melia Hunter, Texas Agricultural Extension Service, Texas A&M University, College Station, Texas

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PRESSING BASICS
CLOTHING & TEXTILES, LEVEL II
Member Handout

Pressing Matters

Equipment
The right equipment for all your pressing/ironing needs, whether you are sewing or ironing your laundry, makes a big difference in the finished appearance and the ease of the task.

A steam/dry combination iron is the best. Make sure the temperature control indicates a full range of settings for synthetic as well as natural fibers.

A cordless iron is convenient, easy to use and handle, but does not get hot enough to press/iron cotton and linen fabrics. It is also much more expensive than a combination iron.

An automatic shut-off iron will turn itself off if left idle for a few minutes. This is a safety feature designed for those people who often forget to turn the iron off. This is inconvenient for the homesewer, however, because the iron has to be turned back on and allowed to reheat after the timed shut-off.

Ironing boards should be adjustable to various heights and rigid enough to withstand pressure. Padding helps reduce shine. Cover type is a personal preference. Muslin or cotton canvas covers are attractive and easy to put on; however, they scorch more easily than silicon-treated covers. On the other hand, silicon-treated and metallic-coated covers may cause fabrics to shine and can cause heat to bounce back and damage heat sensitive fabrics. Covers must be removed for laundering. Both padding and cover must be smooth to prevent wrinkles that may press through to the fabric.

A sleeve board is composed of two small ironing boards or a small ironing board on a wooden base or stand. It enables you to press seams and small sections of garments as well as sleeves. It is designed to allow the sleeve seam to be pressed without pressing in creases and to shrink out fullness in the top of the sleeve cap.

A point and seam presser is made of hardwood. Some point and seam pressers provide many different shaped surfaces for pressing points, curved seams, and straight edges. Others are designed to press points and straight seams only. The thin flat edges provide a surface that allows the seams to be pressed open without a seam impression showing on the outside of the garments. The point presser allows the seam at the tip of the garment section to be pressed open. (As a substitute for a point presser, use a pointed wooden dowel or several layers of cardboard the shape of the garment section).
Pressing Matters, continued

A **tailor’s ham** is a firm, rounded cushion that is covered half in wool, half in cotton. Use if for pressing areas that need shaping, such as darts, curved seams, sleeve caps, or any defined rounded area. (As a ham substitute, use a small hard pillow or a tightly balled terry cloth towel pinned securely to hold its shape.)

![Image of a tailor’s ham]

A **seam roll** is a narrow, cylindrical cushion used for pressing long seams and hard-to-reach areas. This prevents seam ridges on the right side. (As a substitute, place strips of paper under the seams before pressing or cover a tightly rolled magazine covered with scraps of wool or cotton fabric.)

![Image of a seam roll]

A **tailor’s mitt**, also called a press mitt, is similar to the tailor’s ham but is smaller, with a pocket on the side to fit your hand or clip over the sleeve board. It is used for hard-to-reach areas that need steam shaping.

![Image of a tailor’s mitt]
Pressing Matters, *continued*

**Press clothes** prevent fabric shine or iron marks on the fabric. For pile fabrics, use a scrap of self-fabric, placing nap to nap. Commercial iron soleplate covers such as Iron-allR and Iron-safeR eliminate the need for a press cloth.

A **clapper or pounding block** is a shaped length of wood used to pound and flatten seams and faced edges as they are steamed. It is used mainly for tailoring woolens and difficult-to-press fabrics.

A **needleboard** is a bed of steel wires mounted on a flat piece of heavy canvas that is placed between the ironing board and piled fabric to prevent flattening the nap. (As a substitute, use the right side of a piece of self-fabric or a fluffy terry towel.)
PRESSING BASICS
CLOTHING & TEXTILES, LEVEL II
Member Handout

Pressing Matters, continued

Safety
Irons, like other electrical appliances have cords that can trip you. This can cause the hot iron to fall and burn you. Some irons have resting bases that are more unstable than others, and a slight push will tip them over. If they do tip over, you can be burned by hot water or by the hot face of the iron itself. Other hazards associated with irons include the risk of a small child climbing on a chair and touching the hot iron; the risk of being hit by the iron if it is pulled off the ironing board or off a shelf; and the risk of electric shock, which can occur if water spills on parts carrying electric current. Follow these safety tips.

- Always unplug the iron and put it out of reach of small children even if you leave for just a few minutes.

- Use a sturdy ironing board and place the board as close as possible to a wall and the outlet where the iron is plugged in. This should reduce the risk of tripping over the cord or causing the ironing board itself to fall. Use the proper temperature setting for the fabrics you are ironing. Fabrics will scorch or melt if the temperature is too high, and many fabrics will ignite if the iron is left on them too long.

- Unplug a steam iron when filling it with water because you could get an electrical shock if water spills on live electrical components of the iron.

- Use demineralized or distilled water in a steam iron because normal tap water may leave mineral deposits and these can clog steam and vent openings.

- After you have finished ironing, empty the iron if water has been used, coil the cord so that it is not kinked, and put the iron up high to cool.

- If you must use an extension cord, remember that an iron is a high amperage (current) device, which requires an extension cord capable of carrying that current.

Iron Care
Keep the iron clean at all times. If finishes or fusible materials are allowed to gum the soleplate, pressing is impossible. To remove excess buildup, clean the iron.

To clean the soleplate of the iron, use commercial iron cleaner available in fabric stores, grocery stores, and some variety stores. To remove mineral deposits from the inside of a steam iron, fill it with equal part of water and white vinegar. Let it steam for several minutes, then disconnect and let sit for 1 hour. Empty and rinse out with distilled water.
PRESSING BASICS
CLOTHING & TEXTILES, LEVEL II
Member Handout

Pressing Matters, continued

Ironing Techniques
Ironing and pressing not only reduce wrinkles in clothing, but also help to retain details of tailoring, such as creased pant legs, smooth plackets, and crisp pleats. With modern synthetic fibers and blends, ironing is not the chore it used to be; however, pressing and ironing are still a routine part of clothing care.

Ironing is gliding the iron across the fabric; pressing is raising and lowering the iron onto the fabric without any gliding motion. Iron with straight strokes, lengthwise or crosswise to the grain of the fabric. Diagonal or circular strokes can stretch the fabric. To enhance details, such as pleats, darts, etc., use a pressing technique, rather than ironing.

Organize routine ironing by doing in batches. Begin with garments requiring the lowest steam setting. Then empty the iron for garments that need to be ironed with dry heat.

When ironing or pressing garments, avoid wrinkling parts that have already been ironed. Do large areas last and, after ironing the garment, touch up important parts, such as the collar and cuffs. Be sure ironed clothing is dry and cool before storing.

Pressure, moisture, and heat are the variable factors that must be controlled to ensure professional results and to protect your fabric. Use of spray starch and water mist may aid iron. It is good procedure always to test press the fabric.

Ironing and Pressing Tips
While pressing the great majority of fabrics, keep the weight of the iron in your hand, exert light pressure on the fabric, and never rest the full weight of the iron on the fabric. A careful lifting and lowering motion is the rule when pressing with the iron. Additional pressure is necessary only for crease-resistant and firmly woven fabrics.

Most fabrics require moisture for pressing, but excessive moisture will spot, ruin the texture, or give an overpressed look in some cases. To avoid damage to your fabric, use a press cloth when it is necessary to press on the right side.

Never use a wet press cloth on any fabric—it should just be damp. When dampening the press cloth, control the amount of moisture by wetting a third of the cloth, rolling it up, and wringing it to distribute the moisture. Check the heat settings on your iron and test press the fabric. Some fabrics can deteriorate or become harsh and brittle under excessive iron heat.

Precautions must be taken when pressing fabric on the right side since using an iron that is too hot, or a press cloth with too much moisture, will cause iron shine. Use a press cloth or a steam iron cover that fits over the soleplate of the iron to help prevent this. The best press cloth is a small piece of fabric in the same fiber content as the garment (wool for wool, cotton for cotton, etc.). In an emergency, heavy brown paper can be used as a substitute for a press cloth. Padding under the ironing board cover will also help prevent shine.
PRESSING BASICS
CLOTHING & TEXTILES, LEVEL II
Member Handout

Pressing Matters, continued

Use a little spray starch or fabric finish (sizing) to keep lace, linen, and cotton crisp looking.

Do not press or iron clothes that are dirty or stained. Heat will set the stains.

Press napped fabrics carefully to avoid crushing the nap. Place the garment, wrong side up, over a thick towel. Use steam and apply little pressure.

Keep a pump-spray bottle of water handy for misting stubborn wrinkles or creases.

Fabrics will retain their pressed appearance only when cool. Be sure garments are cool before you move them or what you pressed in will fall out. Fabrics should be cool and dry before you put them back into the closet, and remember to allow a little breathing space between hanging items.

You may eliminate daily touch-up pressing by choosing the next day’s clothing and placing them on a hook outside the closet so slight or minor closet wrinkles will hang out overnight.
Garment Life
Clothing & Textiles, Level II, Care and Maintenance

What Members Will Learn . . .

ABOUT THE PROJECT:
• What “Garment Life” is
• How proper care lengthens garment life
• How care labels, cost of care and daily care work together to affect garment length of service
• How to extend “Garment Life” by recycling

ABOUT THEMSELVES:
• The impact of their consumer decisions beyond the “price of garment”
• How responsible care of personal items can save money
• How decisions they make about expanding, recycling, or discarding wardrobe items effect the environment

Materials and Resources Needed:
• Meridian VHS Tape “Stretching Your Clothing Dollar” (available from the Area Extension Office)
• TV & VCR
• Copies of Member Handout

ACTIVITY TIME NEEDED: 60 MINUTES

ACTIVITY:
Many factors influence “garment life.” The life of the garment means the length of time you will use the item and it’s appearance and properties will continue to be satisfactory for your expectations. All of these factors influence a garment’s life: storage, wear, cleaning, textile properties, garment construction, and fashionability. One factor that may have no effect on garment life, but has a major effect on the decision to buy, is price.

Leader Notes
Welcome all members to the meeting. Have everyone sit in a comfortable seat or on the floor. If members do not know each other have them introduce themselves and tell about an old garment they or someone in their family owns but are no longer using. Have them discuss why they think this garment is no longer being used. Some reasons may be it was not a wise purchase, it wasn’t cared for properly, it no longer fits, or it is out of fashion. You begin introductions with yourself. If you have time, you might suggest they bring the item with them to the meeting.
Let’s look at storage wear and fashionability and their influence on garment life. Distribute Member Handout, “Clutters Last Stand.” Using handout discuss ways of solving storage problems with members. Before discussing the section “Wear and Fashionability,” view video tape “Stretching Your Clothing Dollars.”

**DIALOGUE FOR CRITICAL THINKING:**

**Share:**

Q. Explain what is meant by “garment life”?
A. The length of time you will use a garment and it’s appearance and properties continue to be satisfactory for your expectations.

Q. Name three types of storage that, when used correctly, can help extend the life of a garment.
A. Hanging, flat and seasonal.

Q. How can you extend a garment’s life?
A. Don’t wash after each wearing unless dirty, after wearing air overnight and store promptly, use seasonal storage, keep in good repair - mend at first indication of need, use proper cleaning procedures stated on the care label, consider alternate use or recycle when garment is not suited for your purposes.

**Process:**

Q. Name three ways to recycle an unworn garment?
A. Remake, give to charity, convert to dust cloths.

Q. What items do you have that require seasonal storage?
A. Heavy coats, mittens, hats, swim wear, towels, boots, sandals, sweaters, long and short sleeved garments.

Q. Do you have items that you no longer wear? Why?
A. Most will say yes. Reasons may include: out of fashion, needs mending or repair, unflattering style, don’t enjoy wearing, hidden in storage, color unbecoming.

**Generalize:**

Q. What other items than clothing or textiles require seasonal storage?
A. Snow sleds, school books, Christmas decoration, etc.

**Apply:**

Q. How could you extend the life of school books or Christmas decorations based upon storage and recycling principles you have learned for this lesson.
A. By passing school books on to a younger sibling, selling at a used book store, sending to children in another country, or by carefully packing Christmas decoration in appropriate flat containers and storing in a dry, ventilated, insect free area.

**GOING FURTHER:**

- Have members pad hangers by wrapping with old hose.
- Visit dry cleaners or firm that offers seasonal storage.
- Visit second hand store to view garments offered and let members envision remakes or enhancements that could be done on clothing offered for sale.
- Make muslin clothing storage bags to give as gifts.
• Have members bring old item to remake for project.
• Have members estimate the total cost of clothing (purchase price) that their family gives away in one season or year as non wearable items.
• Discuss different storage practices of family members.
• Discuss the influence of storage on the appearance of clothing.
• Discuss ways of keeping clothes orderly and the relationship of orderly storage to longer wear.
• Critique pictures of closets and discuss improvements to make.
• Have each member bring an example or picture of a storage accessory and discuss how each might be used.
• Tour a container store, hardware store, discount store, etc., and identify storage possibilities.
• Demonstrate proper folding of sweaters or stretchy garments.
• Construct aids for storing and arranging clothing using handouts from the EHE teaching plan, Closet Organization.
• Give members a list of clothing that is to be stored. Plan for the storage of each of these garments.
• Demonstrate the correct mothproofing procedure.
• In small groups, list clothing items found in dresser drawers of a project member. Plan for the best storage/organization of these items.
• Have an entomologist discuss moth and beetle prevention/treatment.
• Demonstrate construction of inexpensive storage items.
• Prepare an exhibit on efficient use of closet and storage space.
• Design clothing storage/closet organization for a physically disabled person.
• Write a news article or radio spot on correct mothproofing.

REFERENCES:
Care and Maintenance of Clothing, 1990 Computer Program, Linda Heaton Clothing and Textile Specialist, University of Kentucky, Nadine Hackler Clothing and Textile Specialist, University of Florida
Clothing Leader Guide, Ann Beard, Alma Fonesca, Teresa Criswell, and Melia Hunter, Texas Agriculture Extension Service, Texas A&M University, College Station, Texas

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The long life and fresh appearance of clothing depends on proper storage as well as proper cleaning. How you handle your clothes from day to day and how you store out-of-season clothing affect the life and look of your wardrobe.

1. Storage
Organization is the key to keeping clothes neat and in good condition. Clothing in a properly organized closet maintains its shape, stays clean and unwrinkled, and saves you time and energy. Use your existing closet space to its fullest potential with closet accessories and hardware to expand the available space. Out-of-season clothes have special storage needs. Prepare these garments properly to protect against moths, mildew, and staining.

You should be able to see everything every time you open the closet door. Notions departments, hardware and office supply stores, mail-order catalogs, and closet shops are great sources for storage and organization aids. Plastic and ceramic hooks, metal or fabric shoe hangers for the backs of doors, and pegboard can be used to extend limited closet space.

Hang everything you can. Do not put anything in drawers that you can hang or stack on open shelves. Double your hanging space by creating two hanging levels so you can see tops in relations to bottoms. You will be amazed at how many new combinations suddenly appear! Buy a system or make your own—use screw eyes, S-hooks, chain and a dowel for a super easy system. Create functional doors. Use the inside of doors for extra hanging space. Add towel bars for sweaters or scarves, mug racks for jewelry, nails for belts, or shoe racks.

See-through plastic boxes are great for dust-free shelf storage. Look for easier to use slide-out drawers, rather than lift-off lids so that you can stack them.

Make your closet light and bright. Avoid investing in professional wiring; buy a battery operated light from the hardware store. Or use a clamp-on spotlight directed toward your closet.

Hang clothes in categories according to color to easily coordinate:

<table>
<thead>
<tr>
<th>jackets</th>
<th>skirts</th>
<th>pants</th>
</tr>
</thead>
<tbody>
<tr>
<td>blouses or shirts</td>
<td>dresses</td>
<td>sportswear</td>
</tr>
<tr>
<td>evening clothes</td>
<td>sleepwear</td>
<td>outerwear</td>
</tr>
</tbody>
</table>

Hang two-piece dresses and suits separately. This will maximize the wearing of each top and bottom. Some stretchy garments, such as sweaters, will keep their shape better if folded on a closet shelf in easy view, placed on a shelf in clear plastic vertical bags, or placed in clear boxes on shelves.

**Hanging storage:** Use the following hangers for appropriate items. Plastic tubular hangers for firmly woven, light weight shirts and blouses. Padded, shaped and suit hangers for sheer fabric blouses, dresses, jackets, suits and tailored garments. Hangers with horizontal bar padded or enlarged to hang slacks or pants at thigh, or slacks can be suspended by the cuff or waist to prevent creasing at foldline. Standard clip-style skirt hangers leave impressions in both real and synthetic suedes unless you protect the garment by tucking a scrap of medium- to heavy-weight fabric between waistband and clips or use hangers with rubber tips. Avoid wire hangers—they can...
Clutter’s Last Stand, continued

rust, paint peel and rough metal may snag delicates. If you do use wire hangers, cover them with white paper. Look for and use garment loops found in many ready to wear items. Garment loops distribute weight and prevent distortion of the garment. If not present, you can prevent shoulder distortion in better dresses by adding long loops of seam tape anchored to front and back waistline seams. Loops should be slightly shorter than waist to shoulder length to prevent stretch. In the closet, allow for air movement between garments. This assists in decreasing wrinkles. If the garment has fasteners, secure the top one to hold on the hanger. Keep the closet clean, by airing and washing down at least once a year. Never hang soiled clothes or items needing mending back in the closet until they have been cleaned and/or repaired. Be sure garments do not touch the floor when hanging. Leave closet door open occasionally to allow air circulation. Scented odor devices and sachets are nice but avoid direct contact with clothing.

Flat Storage: Most people need more of this than they have available. Items suited for flat storage include: sweaters, other knit wear, heavy stretchy items, delicate and fragile clothing, handbags and other small unhangable items. Guidelines for flat storage are as follows:
- fold at construction or natural wearing lines (waist, knee)
- use tissue between folds to prevent creasing
- don’t fold the same way each time
- roll appropriate items (socks, underwear) - reduces space needed and prevents wrinkles
- paint shelves and line drawers to protect clothing from snags, stains, and degradation caused by natural oil and acid in wood
- avoid stacking heavy items; if you must, put the heaviest on the bottom
- clean and air the area at least once per year
- don’t allow scented devices or sachets to come in contact with stored items
- flat storage such as stackable clear plastic boxes, kitchen bins, and covered baskets can be used to extend limited closet space

Seasonal Storage: Proper seasonal storage will enhance garment life. The months during the year that garments are not suited for wear can be a time of deterioration if not properly stored or can be a time of rest that will result in a refreshing garment to resume wearing. Important points to remember about seasonal storage:
- properly clean garments before storing; making sure they are completely dry and that wool drycleaned garments have been moth proofed. Do not trust cedar lined closets or commercial wood chips as only new cedar woods contain the oils that are a repellent to clothes moths. Because of their vulnerability to moths and carpet beetles, woolen garments should be stored according to certain procedures. To ensure elimination of any moth larvae present, launder or dryclean clothes before storing. Even man-made fabrics and those with moth-resistant finishes can be damaged if food spots and stains attract insects. Mothproofing is a must when the temperature is 50 or more. Air conditioning is no defense against moths! Scatter mothproofing crystals or balls liberally throughout all stored items using layers of tissue paper to prevent them from touching clothes. Do not use with leather or fur. Keep drawers and doors shut tightly or use garment bags and sealed boxes to confine the vapors as much as possible. If you cannot stand the smell of traditional mothproofing, look for lavender scented varieties. Cedar chests keep out moths if airtight, but cedar does not kill moth larvae, the real culprit. Herbal mixtures won’t either, but they may repel egg-laying moths. Vapor from mothballs can be effective if sealed in the area/container with the items, and this is difficult to do. Try suspending crystals
Clutter’s Last Stand, continued

from mesh bag from top of storage area. Do not let clothes rest or touch the bag. Seal and leave alone for several days. Follow all product directions and do not inhale fumes from any storage substances. If closets and clothes are clean and sealed as tightly as possible, they will do a good job keeping the enemy away.

- select area that is clean and dusted, away from extreme dampness, heat, grease and fumes, and away from direct sunlight to prevent sunfading.
- don’t wrap in plastic bags; they can be so airtight clothes cannot breathe and mildew can develop. They can also give off chemicals that react with fabric. Use cloth garment bags or canvas garment bags, either hanging type (closet) or bags for flat storage. Some garment bags can hold hangers at the top and folded items at the bottom.
- trunks and suitcases may be used; items placed in pillow cases allow for suitcase use during storage time
- wrap natural fiber items in white (acid free preferred) tissue paper or pillow cases
- fold items as few times as possible; fold at seamlines
- don’t over pack into storage areas
- if your household is short on storage space talk to a dry cleaner to see if they may offer seasonal storage
- inexpensive portable clothes racks and under bed storage boxes can expand your storage space. Or, use a wicker chest or a foot locker. They can do double duty as tables in your room.
- air clothing upon removal from storage
- wool and wool blend and specialty hair fiber fabrics can be renewed by hanging them on a rod in bathroom with steam. After steaming, allow to hang undisturbed for several hours. Gently press out remaining wrinkles.

Besides clothing, other household items (blankets, linens, etc.) are stored off season by the same storage principles.

2. Wear and Fashionability - recycle or discard? By deciding to recycle you are making an effort to continue the usefulness of this item for someone else or for another purpose. Here are various forms of recycling most unused items can fit into. Choosing one of these categories will save a garment from taking useless landfill space. Some of these categories are quite simple while others require more time, effort and cost. All should be considered when faced with a garment no longer being worn.

- Customize or revitalize
- Give to charity
- Convert to rags or dust cloths
- Give to children for “dress up”
- Use in mending or patchwork
- Convert to cloth strips for use in tying up plants
- Quilt making
- Craft projects/doll clothes
Recycling a garment can be simple as cutting jeans off for “cut offs” or much more complex where a garment is disassembled and actually reassembled. Really creative ideas can add the personal touch to items you may otherwise dismiss as useless. Here are a few suggestions but your own creativity will help you visualize what will work for you.

- Lengthen by adding bands of fabric (sewn on old hem line) repeat at sleeves or neckline if possible to draw garment together
- Turn short dress into tunic
- Make a blouse from a dress
- Alter garment into a new fit
- Cut off sleeves and face with a complimentary fabric
- Update with new buttons
- Convert dress into jumper (remove sleeves and lower neckline)
- Make a child’s garment from an adult’s
- Add width by inserting bands, pleats, gores, yokes or tucks
- Add contrasting collar and/or cuffs
- Reshape garment: create a new waistline, narrow pant legs, narrow shoulder length by taking tucks or pleats
- Make knit hat or cap from old sweater


Care Labels

Clothing & Textiles, Level II, Care & Maintenance

What Members Will Learn . . .

ABOUT THE PROJECT:
- What information is found on a care label
- Where to find care labels
- How to use care labels in laundry decisions

ABOUT THEMSELVES:
- Consumers have a right to know about the garments they purchase
- Informed consumers can make better purchasing and laundering decisions by reading labels carefully

Materials Needed:
- Copies of Activity Sheet
- Several garments with care labels, one per member (if you have recently purchased a garment that still has all the hang tags, use it; if not, you can probably borrow some garments with hang tags from a local retailer)
- Colored pencils, crayons, or markers in colors named on the Activity Sheet

ACTIVITY TIME NEEDED: 30 MINUTES

ACTIVITY:
As you buy clothing you will notice many tags and labels attached to a garment. We are going to talk about a very special label that must be attached to every item you buy; a care label. As you shop for clothing have you ever seen a label or tag attached to an item? What information did that tag give you? (Answers will vary, price, size, care, brand, fiber content, etc.)

Let’s talk about some of the different tags and labels you will find. Do you ever see a tag that is hanging from a sleeve or waistband? This is called a hang tag, and often includes optional labeling. This tag tells price and size and special features about this garment the manufacturer wants you to know.

Most garments will have a brand label somewhere on the inside of the garment. This tells the company or line who produced the garment. It is usually found around the back of the neck or waistline.

Leader Notes
Have members sit in a circle. Pass out a garment to each member. Ask each member who wants to volunteer to point out the brand label of the garment they hold.
Next, let’s talk about mandatory labeling. There are laws (Apparel Product Care Labeling, Textile Fiber Products Identification Act, Wool Products Labeling Act, and Fur Products Labeling Act) that say that every item sold in the United States must have an attached label that tells how to care for that item and also the fiber or fur content. Fiber content is the amount and types of fibers used in the item.

Specifically, mandatory labeling is information that must be provided to the consumer at the point of purchase. It may be on a package wrapper, hang tag, etc.; it need not be permanently attached or durable for the life of the product. This information includes:

- identifying the fiber by generic name
- giving the percentage of fiber by weight
- identifying the manufacturer; name and RN/WPL number
- identifying the country of origin where processed or manufactured
- species of animal if fur
- whether dyed, colored, or bleached if fur
- whether recycled if wool

One piece of information that must be permanently attached and durable the life of the product is the care label which lists one acceptable way to care for the product.

Optional labeling may be in the form of a hang tag, attached or accompanying leaflets, included on the permanently attached cloth label, or any other method of labeling or informing. This information includes:

- price of product
- size of product
- finishes applied to product
- color information, i.e., color, lot #
- design or other brand information
- explanation of special features or other aspects related to the product

Care labels are usually found behind the brand label or on the side seams. See if you can find the care label on your item. The care label must be permanently attached to the garment.

Each care label must give one acceptable way in which to care for that item. There may be other ways that are acceptable, but the manufacturer is not required to give you more than one acceptable way. In the U.S. it must be in written form. The European form uses symbols which may also be included, but are not necessary. (See Member Handout for symbols.)

Next, let’s sort these items according to the care label.

The important thing to remember about the care label is that if you use it to care for a garment and the garment does not perform as you would expect, you can return the garment to the retailer or manufacturer for a replacement or refund. If it is ruined because you used another method than the one stated on the care label, you can not seek restitution (ask for it to be replaced or refunded) for the ruined garment.
Next, write a care label for the garment in your hands. Remember, only one acceptable method needs to be stated.

**DIALOGUE FOR CRITICAL THINKING:**

**Share:**

Q. What label information must be permanently attached and durable the life of the product?
A. One way to care for a product.

Q. What is some information a manufacturer may tell you on a label that they don’t have to according to laws?
A. Price, size, finish, color.

**Process:**

Q. If you buy by brand label alone, how much do you know about an item?
A. Very little.

Q. What don’t you know from just looking at a brand label?
A. Fiber content, correct care, cost of care compared to another similar item.

Q. Why is it important to understand garment labels?

**Generalize:**

Q. Why is it important to follow the care label instructions?
A. To increase the garment life, so the item will look good after washing, if cleaning harms the garment you can get a replacement or refund.

Q. How might reading the care label change your mind about buying an item?
A. Special cleaning is too much bother, or expensive, fiber content not what expected.

**Apply:**

Q. What other things besides clothing come with care instructions?
A. Appliances, cars, cookware, computers, etc.

Q. Have you always followed garment care labels? What happened if you didn’t?

**GOING FURTHER:**

- Visit retail outlet to compare care labels of one item (example—sweaters) to see the range of differing care that is listed.
- For older members—compare the cost of hand washing versus machine versus dry-cleaning for a garment, not only in cost but in time.
- Have the members write a letter stating that an item did not meet the standards expected after following the care label.

Hand out the activity sheet for this lesson and have the members unscramble the different labels or tags they may find on a garment. Use the code next to the description to color in the word on the labels they describe.
Exemptions to the Care Label Rule exist. These include: reversible products with no pockets (information must be provided on a temporary label); products that can be washed, bleached, dried, ironed or dry-cleaned by the harshest method must have a temporary label that reads “Wash or dry-clean, any normal method”; certain other specific exemptions granted by the FTC. Write the Federal Trade Commission (see address in reference section) for a copy of this information. Study the law to determine what other exemptions exist.

REFERENCES:
Care and Maintenance of Clothing, 1990 Computer Program, Linda Heaton, Clothing and Textile Specialist, University of Kentucky Agriculture Engineering Department, Lexington, Kentucky 40546-0276, and Nadine Hackler, Clothing and Textile Specialist, University of Florida
Fabricare News, June 1991, International Fabricare Institute, 12251 Tech Road, Silver Spring, Maryland 20904, 301-622-1900

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Reviewed by:
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CARE LABELS
CLOTHING & TEXTILES, LEVEL II, CARE & MAINTENANCE
Activity Sheet

Labeling

Level II: 9-10 year olds should be given only labels 1-4 and instructed to find the information on labels that lists one acceptable way to care for the product and to color that information red.

Levels III and IV: 4-H’ers should be given all labels and instructed to color code the information as follows.

Find information on the care labels that:

**Mandatory Information**
- Blue: identifies the fiber by generic name
- Green: gives the percentage of fiber by weight
- Orange: identifies the manufacture (name and RN/WPL number)
- Purple: identifies the country of origin where processed or manufactured
- Brown: identifies the species of animal (if fur)
- Black: identifies whether dyed, colored, or bleached (if fur)
- Yellow: identifies whether recycled (if wool)
- Red: lists one acceptable way to care for the product

**Optional Information**
- Gray: gives the price of product
- Dark green: gives the size of product
- Sky blue: identifies any finishes applied to product
- Maroon: identifies color information, i.e., color, lot #
- Dark yellow: gives design or other brand information
- Pink: provides explanation of special features or other aspects related to the product

1. **50% FORTREL POLYESTER 50% AVRIL RAYON EXCLUSIVE OF DECORATION**
   - Fortrel, a licensed trademark, is awarded to fabrics of proven performance. Celanese laboratories continuously evaluate samples of the fabric in this garment against rigorous performance standards.
   - **A Durable Press Fabric with Fortrel. Touch-up ironing may be desired**

   **CARE INSTRUCTIONS**
   - Machine wash—use warm water
   - Machine Dry—use warm or wash/wear setting remove as soon as dry
   - If ironing is desired, use a steam iron or a dry iron at the warm setting
   - If line or drip dried, this fabric will be easy to iron

2. **100% polyester WPL 10913**
   - Machine wash warm tumble dry: remove promptly.
3. **MADE IN THE U.S.A.**
   - 100% RECYCLED WOOL
   - Hand or machine wash separately
   - Dry flat
4. **Scandanavian Imports**
   - Fur Origin: Sweden
CARE LABELS
CLOTHING & TEXTILES, LEVEL II, CARE & MAINTENANCE
Activity Sheet, Leader’s Key

Labeling

Level II: 9-10 year olds should be given only labels 1-4 and instructed to find the information on labels that lists one acceptable way to care for the product and to color that information red.

Levels III and IV: 4-H’ers should be given all labels and instructed to color code the information as follows.

Find information on the care labels that:

Mandatory Information

Blue: identifies the fiber by generic name
Green: gives the percentage of fiber by weight
Orange: identifies the manufacture (name and RN/WPL number)
Purple: identifies the country of origin where processed or manufactured
Brown: identifies the species of animal (if fur)
Black: identifies whether dyed, colored, or bleached (if fur)
Yellow: identifies whether recycled (if wool)
Red: lists one acceptable way to care for the product

Optional Information

Gray: gives the price of product
Dark green: gives the size of product
Sky blue: identifies any finishes applied to product
Maroon: identifies color information, i.e., color, lot #
Dark yellow: gives design or other brand information
Pink: provides explanation of special features or other aspects related to the product

1. Dyed Mink
   Scandinavian Imports
   Fur Origin: Sweden

2. Made in the U.S.A.
   100% RECYCLED WOOL
   Hand or machine wash separately
   Dry flat

3. 55% DACRON POLYESTER
   35% COMBED COTTON
   MACHINE WASHABLE

4. 100% polyester WPL 10913
   Machine wash warm tumble dry
   remove promptly.
CARE LABELS
CLOTHING & TEXTILES, LEVEL II, CARE & MAINTENANCE
Member Handout

Care Labels

A care information tag is required in most clothing sold in the United States. These written instructions will normally give only a single care method for your garment; using care methods not mentioned may carry some risk.

When an international care symbol tag is also present, all care methods will usually be shown.

Drycleaning

- Do not dryclean.
- Dryclean.
- Dryclean with any solvent.
- Use any solvent except trichloroethylene.
- Dryclean, tumble at a low safe temperature.
- Use petroleum or fluorocarbon only.
- Underline indicates “sensitive.” Reduce cycle and/or heat.
- Underline indicates “sensitive.” Reduce cycle and/or heat.

Ironing

- Do not iron or press.
- Iron at a low temperature (up to 110°C, 230°F). For example, this is recommended for acrylic.
- Iron at a medium temperature (up to 150°C, 300°F). For example, this is recommended for nylon and polyester.
- Iron at a high temperature (up to 200°C, 390°F). For example, this is recommended for cotton and linen.

Bleaching

- OR Do not use chlorine bleach.
- OR Use chlorine bleach with care. Follow package directions.

Drying

- Dry on flat surface after extracting excess water.
- “Drip” dry—hang soaking wet.
- Hang to dry after removing excess water.
- Tumble dry at low temperature and remove article from machine as soon as it is dry. Avoid over drying.
- Tumble dry at medium to high temperature and remove article from machine as soon as it is dry. Avoid overdrying.
Care Labels, continued

Do not wash.

Machine wash in lukewarm water (up to 40°C, 100°F) at a gentle setting (reduced agitation).

Machine wash in warm water (up to 50°C, 120°F) at a normal setting.

MACHINE—very hot (85°C) to boil, maximum wash. HAND WASH—hand hot (45°C) or boil
Spin or wring

White cotton and linen articles without special finishes.
(85°C=185°F) (48°C=119°F)

MACHINE—Hot (60°C) medium wash
HAND WASH—Hand hot (48°C)
Spin or wring

Cotton, linen, and rayon articles without special finishes where colors are fast to 60°C. (60°C=140°F) (48°C=119°F)

MACHINE—Hot (60°C) maximum wash
HAND WASH—Hand hot (48°C)
Cold rinse, short spin or drip dry.
White nylon; white polyester/cotton mixtures.
(60°C=140°F) (48°C=119°F)

MACHINE—Hand hot (48°C) medium wash
HAND WASH—Hand hot (48°C)
Cold rinse, short spin or drip dry.
Colored nylon; polyester; cotton and rayon articles with special finishes; acrylic/cotton mixtures; colored polyester/cotton mixtures. (48°C=119°F)

MACHINE—Warm (40°C) medium wash
HAND WASH—Warm (40°C)
Spin or wring

Cotton, linen, and rayon articles where colors are fast to 40°C (104°F) but not at 60°C(140°F)

MACHINE—Warm (40°C) minimum wash
HAND WASH—Warm (40°C)
Cold rinse, short spin. Do not wring.

Acrylics; acetate, and triacetate including mixtures with wool; polyester/wool blends. (40°C=104°F)

MACHINE—Warm (40°C) minimum wash
HAND WASH—Warm (40°C)
Spin. Do not wring.
Wool, including blankets and wool mixtures with cotton or rayon; silk. (40°C=104°F)


Washable pleated garments containing acrylics, nylon, polyester or triacetate; glass fiber fabrics. (40°C=104°F)

The following color codes explain what various colors indicate on care labels:

Red = Do not do/use
Amber = Use caution
Green = Go ahead
Blue or black = Color has no significance.
Basic Laundry Skills - Gone With The Wash

Clothing & Textiles, Level II, Care and Maintenance

What Members Will Learn . . .

ABOUT THE PROJECT:
- To identify basic laundering concepts such as reading care labels, sorting, and proper water temperature and cycle selection
- To understand the purpose and correct use of laundry additives
- How to properly operate a washer and dryer
- To gain practical experience in doing their own laundry

ABOUT THEMSELVES:
- Pride in being able to complete a household task
- Confidence in being able to care for their personal belongings

Materials and Resources Needed:
- Check out the Video “Gone With The Wash” from local extension office or area extension office
- Home VHS video player and television set
- Copies of Activity Sheets

ACTIVITY TIME NEEDED: 40 MINUTES

ACTIVITY:

Not too many years ago households spent up to two whole days a week doing the household task of laundry. This is one area that we have made some great advancements. Today, we spend but a fraction of the time we did 100 years ago doing laundry. With all the new appliances, fabrics and fabric finishes, as well as laundry products, the biggest problem we face today is coordinating all of these to get the cleanest garment possible. It can be very confusing. Let’s watch as another group of young people try their hand at laundry.

A. Chlorine bleach should always be measured, not “dumped.” A liquid chlorine bleach dispenser automatically dilutes the bleach before it reaches the clothes. If no bleach dispenser is available on the washer, the bleach must be diluted in four parts water before adding it to the wash. Improper care results in cottons that look like Swiss cheese or polyesters, nylons and acrylics that lose their color.

B. Avoid overloading the washer. Unfolded clothes should be put in loosely so they can circulate freely. Overloading results in poor cleaning as well as excessive lint and wear. It is best to load the washer with different sized garments. For instance, combine no more than two or three sheets (or other large articles) and add smaller items to complete the load.

<table>
<thead>
<tr>
<th>Leader Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have everyone gather in a comfortable room around the television set. Begin by having everyone tell a funny story about laundry. You begin by sharing your story first, then introduce today’s lesson. Begin the video. Pass out the Activity Sheet (one for each member) and have members fill out Lesson One of the activity sheet. When used with the film, Lesson One serves as a “pre-test.” If used alone, the activity can survey members knowledge about doing the wash. The problems are not difficult to spot, and discussion will teach members to avoid these pitfalls. Ask members to study the various laundry practices depicted, then have them write what they think is wrong with each picture. Compare and discuss answers.</td>
</tr>
</tbody>
</table>
Leader Notes

Stress the importance of reading and following washing instructions and directions from the manufacturer found on garment labels. Also, stress the importance of the instructions for washers and dryers and on laundry product containers. The illustrations in this activity deal with varied problems.

C. Fabrics with similar texture should be washed together. Washing a towel and corduroy pants in the same load is not a good idea. Terrycloth and chenille are “lint-givers,” while other fabrics such as synthetics, corduroy or permanent press are “lint-catchers.”

D. White and colored clothing should be kept apart, as should light colors from bright or dark colors. Washing jeans with undershirts may result in pale blue undershirts and faded jeans.

E. Pockets should be emptied before laundering. Tissues, pens, coins or lipstick may damage garments—and the washer.

F. Different fabrics require different cycles, water temperature settings, and wash times. Delicates and washable woolens need cold water with short agitation, while regular fabrics (towels, jeans, underwear, etc.) need hot or warm water and vigorous washing. Permanent press/no-iron garments require a cool-down rinse to minimize wrinkling.

Remember to separate very dirty clothes from lightly soiled ones; close zippers and other fasteners before washing to avoid snags; mend items with rips or tears to avoid further damage; and treat spotted, stained or heavily soiled garments with liquid detergent, pre-dissolved granular detergent, or a special prewash product before washing.

Detergent

Detergent is the most important product added to wash water. Two common types of cleaning agents are soap and detergent. Soap can only be used in extremely soft water (0 to 3 grains). Detergents comprise 95 percent of all laundry washing products and are available in liquid or granular form. Cleaning results will vary depending on water hardness (available from local water utility), water temperature, types of soil, detergent formulations, and fabric type.

Remember to follow detergent instructions. Very heavily or very lightly soiled items can justify adjusting recommended amounts, as can very soft or very hard water and very large or very small loads.

Bleach

There are two types of laundry bleach—chlorine and oxygen. Chlorine bleach is stronger. While safe for most fabrics, it should not be used on wool, silk, spandex, non-colorfast fabrics, and some flame-retardant finishes. Chlorine bleach generally can be used for synthetics (except spandex), permanent press, and most colored fabrics.

Some washers have automatic liquid bleach dispensers. The user simply pours the correct amount into the proper receptacle before loading the washer to prevent spills on dry clothes. If no bleach dispenser exists, members should mix one part bleach to four parts water and add it after the washer is filled with water and is agitating. If too much bleach is used or it is used incorrectly, fabric damage (holes and tears) or color loss may occur.
Less strong than chlorine, oxygen bleach is safe for all fabrics and can be added to the wash with the detergent. Oxygen bleach does not give the immediate whitening effect of chlorine bleach but regular use helps keep fabrics bright.

**Fabric Softeners**
Fabric softener reduces or eliminates static cling in synthetic fibers; makes fabrics softer, fluffier, and easier to iron; minimizes wrinkling, and helps prevent lint from sticking to fabrics. There are three types: rinse-added, dryer-added, and detergents plus fabric softener.

*Rinse-added fabric softeners* are added to the washer during final rinse. Many washers have dispensers that add it automatically, otherwise it must be added manually. *Dryer-added fabric softeners* are added during drying. The heat of the dryer plus fabric-to-fabric contact transfers the softening agent throughout the dryer load. *Detergents plus fabric softener* are convenient products because both detergent and fabric softener can be added simultaneously as one product. They are available in liquid or granular form.

**Pretreat Products**
Some stains and large soiled-areas may be difficult to remove by washing alone. For complete removal, a pretreat product provides concentrated cleaning power on areas that need it. Liquid laundry detergent, a paste of granular detergent and water, or a special pretreat product may be used. The main advantage of special pretreat products is their convenience. Remember to be careful when using these products, as some can soften fingernail polish, which could transfer to items being treated.

**Energy Savings**
A. Members should be sure to use the proper amount of water. The simple math problem presented in lesson 4 will show how much water can be carelessly wasted in a year. (Answer - 624 gallons)

B. Remind members that collecting enough clothes for a big load is more economical than washing several small loads. However, water levels may be adjusted for smaller loads when clothing is properly sorted.

C. Leaving permanent press clothes in the dryer after the drying cycle is completed causes wrinkles. Promptly removing clothes from the dryer eliminates ironing and thereby saves energy.

D. Improper temperature settings and wash cycles result in inferior cleaning and mean rewashing. But don’t use hot water unnecessarily—it is wasteful.

E. Joe can save energy by: (1) running the dryer just long enough to dry the load; (2) cleaning the lint filter after every load; (3) operating the dryer fully-loaded (but not overloaded); and (4) promptly reloading so that the dryer doesn’t have to reheat between loads.

Lessons 3 and 4 of the Activity Sheet could be used at this time, depending upon how much time, depth, review and expansion of concepts brought out in the video will benefit or interest your group of members. Have members list clothes they wear in a week and sort them (on paper) into the four load categories as indicated in Lesson 2. Then, with the aid of Lesson 2, have them “wash their clothes” by filling out the chart, determining the proper wash cycle, water temperature, and laundry additives for each load.

Have the members bring in detergent, bleach, fabric softener, and other laundry additives and determine how much should be used by reading product directions. Encourage students to discuss their charts and correct each other’s errors.

Lesson 4 offers energy-saving information, while presenting several humorous situations regarding energy conservation in the laundry room to which teens can relate.
DIALOGUE FOR CRITICAL THINKING:

Share:
Q. When you launder something that is not really dirty, how does that affect the garment? The environment?
A. It weakens the fibers so it won’t last as long. It may fade the colors. It wastes water, detergent, money, energy.

Q. What is a “lint-giver?”
A. Towel, velor, etc.

Process:
Q. Where is the best place to check on the recommended care for a garment?
A. The care label.

Q. What was something new you learned from this lesson? Why is that important to you?

Generalize:
Q. Compare how we do laundry to an underdeveloped nation?
A. They use rivers, stones, homemade soap if any, dry over tree limbs.

Q. How has laundry changed in American homes during the past three generations?

Apply:
Q. Considering all the resources needed to do laundry is cloth or paper napkins the best choice?
A. Cloth considered better because of the resources needed to produce the paper product (trees, energy, etc.) uses more resources than ones needed to clean.

GOING FURTHER:
• Have members total the gallons of water their household uses per week to do laundry.
• Compare labels of cleaning products, their ingredients, and safety precautions.
• Compare cost of cleaning products and the way in which they are marketed. (Packaging cost, advertisements, display, colors, etc)
• Tour a plant that manufactures cleaning products or equipment.
• Demonstrate a hard water test.
• Ask members to add their own examples to the Lesson 1 Activity Sheet and challenge the group to identify incorrect laundry techniques.
• Ask members to survey local self-service laundries to see which ones have programmable washers and multi-cycle dryers.
• members might visit appliance or department stores to examine washers and dryers, comparing ease of use and construction quality.
• Have members try doing a load of wash at home according to the chart and share their results.
• Some members may be interested in comparing the per-load prices of the laundry products brought to class.

80-Clothing & Textiles, Level II
REFERENCES:
Gone With The Wash, Maytag Co., One Dependability Square, Newton,
Iowa 50208, copyright 1987
Clothing Care Computer Program, Cooperative Extension Service,
University of Kentucky, Room 252, Agriculture Engineering, Lexington,
Kentucky 40546-0276, copyright 1991
Clothing Care, Capable Kids Can, Deanna Munson, Textile Specialist,
Cooperative Extension Service, Kansas State University, Manhattan,
Kansas 66506

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Living Curriculum Development Committee and Clothing & Textiles
Design Team

To order the video, “Gone With the Wash,” contact Scheduling Center,
Modern Talking Picture Service, 5000 Park Street North, St. Petersburg,
Florida 33709, 813-541-7571
Where There’s a Wash, There’s a Way

Although doing the laundry may seem like a mystifying and complicated task, it’s really not so hard to get good results if you follow a few simple guidelines. The people you see here are having some trouble. In the space provided underneath each picture, “right” their wrongs—then do it right the next time you do a load of laundry.
Different Suds for Different Duds

Post this chart in the laundry room at home or take it with you to the self-service laundry. Always remember to read garment care labels and follow the directions on laundry products.

<table>
<thead>
<tr>
<th>Type of Load</th>
<th>Wash Water Temperature</th>
<th>Rinse Water Temperature</th>
<th>Wash Cycle</th>
<th>Wash Time</th>
<th>Water Level</th>
<th>Laundry Aids</th>
<th>Dryer Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permanent</td>
<td>Warm or Cold</td>
<td>Cold</td>
<td>Permanent</td>
<td>5-10 minutes</td>
<td>Adjust to size of load, but never use less than Medium</td>
<td>Granular or liquid laundry detergent or Oxygen bleach</td>
<td>Permanent Press Cycle Temperature*</td>
</tr>
<tr>
<td>Press/Knits</td>
<td>Hot (whites or heavily soiled)</td>
<td>Cold</td>
<td>Permanent Press/Knits</td>
<td></td>
<td></td>
<td>Chlorine or Oxygen bleach</td>
<td></td>
</tr>
<tr>
<td>Regular</td>
<td>Hot (whites or heavily soiled)</td>
<td>Cold</td>
<td>Regular</td>
<td>4-12 minutes</td>
<td>Adjust to size of load</td>
<td>Granular or liquid laundry detergent (Use liquid or predissolved granular in cold water) Chlorine or Oxygen bleach</td>
<td>Regular Cycle Temperature*</td>
</tr>
<tr>
<td>Fabrics</td>
<td>Warm (colors or normally soiled)</td>
<td>Cold</td>
<td>Regular</td>
<td></td>
<td></td>
<td>Fabric softener</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cold (bright or dark colors or lightly soiled)</td>
<td>Cold</td>
<td>Regular</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delicates</td>
<td>Warm or Cold (bright colors)</td>
<td>Cold</td>
<td>Gentle or Delicate</td>
<td>2-4 minutes on Gentle or Delicate 8-10 minutes on Delicate (alternate periods of agitation and soak)</td>
<td>Adjust to size of load, but never use less than Medium</td>
<td>Granular or liquid laundry detergent in warm water (Use liquid or predissolved granular in cold) Chlorine bleach (except for spandex); Oxygen bleach all fabrics</td>
<td>Regular or Permanent Press Cycle Temperature*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Fabric softener</td>
<td></td>
</tr>
</tbody>
</table>
**BASIC LAUNDRY SKILLS—GONE WITH THE WASH**
**CLOTHING & TEXTILES, LEVEL II, CARE AND MAINTENANCE**
Member Handout

**Different Suds for Different Duds, continued**

<table>
<thead>
<tr>
<th>Type of Load</th>
<th>Wash Water Temperature</th>
<th>Rinse Water Temperature</th>
<th>Wash Cycle</th>
<th>Wash Time</th>
<th>Water Level</th>
<th>Laundry Aids</th>
<th>Dryer Settings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wool</td>
<td>Cold</td>
<td>Cold</td>
<td>Gentle</td>
<td>2 minutes</td>
<td>Adjust to size of load, but never use less than Medium</td>
<td>Liquid or predissolved granular detergent</td>
<td>Machine Dryable Woolens: Regular Cycle Temperature* “Hand Washable” Woolens: Block and allow to air dry</td>
</tr>
<tr>
<td>Machine washable and “hand washable” woolen items</td>
<td>Cold</td>
<td>Cold</td>
<td>Delicate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Helpful Hints**
- At a self-service laundry, look for washers programmed for various fabric types and dryers that have cycles to match.
- Sort your clothes according to color, fabric type, linting characteristics, and amount of dirt, then wash each load separately.
- Empty pockets (and cuffs), close zippers and other fasteners, and remove any trim that is not washable.
- Treat stains and spots with a pre-wash stain remover (follow the directions on the label), or use the washer’s soak cycle.
- Measure the detergent according to the instructions on the package.
- Be careful with chlorine bleach. Read garment care labels and instructions on the package.
- Permanent press clothing will wrinkle if left in the dryer after it turns off. Remove these items immediately.

* For those dryers with two temperature settings, use “low temperatures” for heat sensitive items or those labeled, “tumble dry low” or “tumble dry warm,” use “regular temperature” for all other items.
This is the Way We Wash Our Clothes . . .

Make a list of the clothes you own (use the back of this sheet) then sort them (on paper) into the four load categories described in Lesson 2. With the help of Lesson 2, “wash your clothes” by filling out the blanks on the chart below.

<table>
<thead>
<tr>
<th>Your Sorted Laundry</th>
<th>Wash Water Temperature</th>
<th>Rinse Water Temperature</th>
<th>Wash Cycle</th>
<th>Wash Time</th>
<th>Water Level</th>
<th>Laundry Aids</th>
<th>Dryer Settings</th>
</tr>
</thead>
</table>
Don’t Let Energy Savings Go Down the Drain

Energy can be wasted in the laundry room or self-service laundry. Take a look at these questions and see if you’re aware of some ways to conserve energy as well as have the cleanest clothes on the block. (Take this sheet home to the person who does most of your family’s laundry. Perhaps he or she can give you some additional energy-saving hints.

a. It takes 36 gallons of water to fill a large capacity Maytag washer when set for a large load. When set for a small load, the same washer uses only 24 gallons. If you wash a single pair of jeans with the washer set for a large load once a week for a year, how many gallons of water will you waste?

b. Which saves more water and energy: washing one big load at the end of the week; or washing two or three smaller loads whenever something gets dirty? (See the first question for some relevant information.)

c. How could energy have been saved in this incident? Your permanent press clothes are in the dryer as you watch TV. By the time the program is over, the drying cycle has been finished for half an hour, and the clothes are wrinkled. You end up ironing all your permanent press garments.

d. Sally washes all her clothes in hot water because that’s the easiest way: you just push one button.” Energy-conscious Bob always reads all the clothing labels and is selective about the water temperature settings on his washer. He uses hot water for whites and heavily soiled clothing, warm water for most loads, and cold water for woolens, lightly soiled garments, and bright or dark colors. Which person deserves the Energy-Saver Award? Why?

e. When Joe dries his clothes, he always sets the drying time at one hour so he can be sure everything will be dry. He infrequently cleans out the dryer’s lint filter. He dries things a few at a time, as he needs them, and lets the dryer cool off between loads. How is Joe wasting energy, and what should he do to conserve?
Putting Fabrics Together  
*Clothing & Textiles, Level II, Textile Science*

**What Members Will Learn . . .**

**ABOUT THE PROJECT:**
- How yarns are woven or knit together to form fabric
- The difference between knit and woven fabric
- Characteristics of woven fabrics
- Characteristics of knit fabrics

**ABOUT THEMSELVES:**
- How fabrics and fibers affect their clothing decisions
- Improved observation skills to identify knits and wovens

**Materials Needed:**
- Access to a computer
- Learning Seed Computer Program (IBM or Apple software) “Fabric Identification Kit”: computer compatible with program (request to borrow copies from the Area Extension or your county can purchase a copy of the software for $10 and the Fabric Identification Kit for $12, see details in the Reference Section)
- Copies of Member Handouts

**ACTIVITY TIME NEEDED:** 30 TO 50 MINUTES

**ACTIVITY:**

We have studied the various fibers and where they come from (see lessons in Level II, “Man-made Fibers” and “Natural Fibers”). The next step after creating fibers are forming them into yarns. These yarns can be as large as knitting yarn or as small as a strand of thread and even smaller. Once these yarns are made, they are put together to form fabric. This is called fabrication. There are several ways this can be done. Today, we will be talking about how we put yarns together to make fabric.

**DIALOGUE FOR CRITICAL THINKING:**

**Share:**
- Q. Name the two basic ways that yarns are made into fabric?
  A. Woven and knit.
- Q. What are some types of weaves?
  A. Plain, basket, twill, satin.
- Q. What are some non-woven fabrics?
  A. Interfacing, polyester fleece and felt.

**Leader Notes**

Have all members meet at a location that has a computer to use for this lesson. If members do not know each other allow them to introduce themselves and state why they choose to wear the top/shirt they have on today. You begin.

Load the program and allow members or teams to read a section to the group. You can have members keep track of their quiz answers or again use teams or group consensus in answering.

After the program is complete or as much as time will allow pass out the handout that illustrated the different weaves and knits for members to take home.
Leader Notes

Process:
Q. What part of a woven is the most stretchy?
A. The bias.

Q. What was one of the most interesting things you learned from this lesson?

Generalize:
Q. Why would we want the most stretchy part of a knit to go around our body?
A. To prevent stretching out of shape as worn and because that is where the garment will be stretched as worn.

Q. What will you think about the next time you want to purchase or make an article for an athletic event?

Apply:
Q. What kind of fabrication can you identify in this room?
A. Carpet, drapes, upholstery, clothing, etc.

GOING FURTHER:
• Do basic weaving with loom or by hand. Make a bookmark. Use pot-holder looms.
• Teach basic knitting or crochet.
• Visit local person that has home knitting machines for demonstration.

REFERENCES:
Fabric Know-How, Sewing with Nancy Newsletter, 1987 Nancy's Notions, Ltd. P.O. Box 683, Beaver Dam, Wisconsin 53916
Fabric Identification Kit, The Learning Seed, 330 Telser Rd, Lake Zurich, Illinois 60047, 1-800-634-4941, (Counties and leaders may purchase their own software and fabric identification kit by contacting the Kansas State 4-H Department. Orders must be placed in multiples of 5 to get the discount price.)

Author:
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Reviewed by:
Steve Fisher, Extension Specialist, 4-H Youth Programs, Cooperative Extension Service, Kansas State University; and members of the Family Living Curriculum Development Committee and Clothing & Textiles Design Team
PUTTING FABRICS TOGETHER
CLOTHING & TEXTILES, LEVEL II, TEXTILE SCIENCE
Member Handout

Woven Fabrics

Examples of Weaves:

Plain Weave

Twill Weave

Satin Weave

Pile Weave
(with both cut and uncut loops)

89-Clothing & Textiles, Level II
PUTTING FABRICS TOGETHER
CLOTHING & TEXTILES, LEVEL II, TEXTILE SCIENCE
Member Handout

Knit Fabrics

Lengthwise (Wale)

Crosswise (Course)

Examples of Knit Fabrics:

Single Knit

Tricot Knit

90-Clothing & Textiles, Level II
Blended Fibers
Clothing & Textiles, Level II, Textile Science

What Members Will Learn . . .

ABOUT THE PROJECT:
• What a blended fabric is
• How blended fabrics are manufactured
• Why blended fabrics are desirable

ABOUT THEMSELVES:
• To use wise consumer decision-making skills
• Improved observation skills to distinguish different fabrics and their properties

Materials Needed:
• Garments or other textile products made of a variety of blended fibers and single fibers
• Copies of Activity Sheet

ACTIVITY TIME NEEDED: 30 MINUTES

ACTIVITY:
Once you have learned about the natural and “man-made” fibers and their characteristics you may notice that many garments don’t contain only one or the other types of fibers. Many items will contain some of both or a combination of two or more natural and/or man-made fibers. This information is contained on the garment label which is required by law to be on every textile product sold in the United States.

The reason that more than one fiber is often found on fiber content labels is that manufacturers often combine or “blend” two or more fibers to produce a fabric with a better set of performance factors.

Blending is the generic term used for any combination of two or more fibers into a new fiber, yarn, or fabric. The fiber industry has three classifications of fiber blending. However, most consumers call any of these “blends.”

Blend—An intimate mixture of fibers spun together into a yarn.

Mixture—A fabric with one fiber content in the warp yarns and different fiber content in the filling. (Warp is the lengthwise yarns of a woven fabric—those parallel to the selvage. Filling or weft is the crosswise yarns of a woven—those running at a right angle to the selvage.)

Combination—Two different fiber yarns twisted together to form a ply.

Leader Notes
Have members sit in a comfortable place. If they do not know each other, allow time for members to introduce themselves and read the fiber label on the shirt of the member next to them. You begin.
Reasons to produce fibers with different fiber contents are varied. The major reasons include:
1. To improve spinning, weaving, or finishing results.
2. To obtain a better texture, hand, or appearance of fabric.
3. For economic reasons: expensive fibers blended with less expensive fibers make them more affordable. This can be misused; check the percentage of fiber content to know for sure.
4. To get cross-dyed or new color effects, for example, heather.
5. To obtain fabrics that are easier to care for with other improved properties such as less shrinkage, wrinkling, and longer durability, with more comfort in wear.

Blending is an expensive process, but manufacturers have found it to be desirable to the consumer so it is worth the expense. Blending often results in a more uniform preforming fabric which is one intent with blending.

Blending can be done in any stage of fiber fabrication. The earlier the blending process, the better the blend. One of the major difficulties in definition and understanding blends, combinations, and mixture fabrics is that labeling doesn’t differentiate between these processes. The Textile Fabric Products Identification Act (TFPIA) requires only that fiber present in a fabric be identified; it does not require that information be given concerning how the fibers are arranged in the fabric. Most fabrics manufactured today are blends, but some combinations and mixtures are produced, i.e., using single yarns of one fiber in the warp (lengthwise) direction of the fabric and single yarns of a second fiber in the filling direction or using a blended yarn in one direction of the woven fabric and a single fiber type used in the other direction. Mixtures and combinations usually do not perform as well as blends; they may shrink in one direction or both and they may require complicated care procedures. Uneven strength may also result with weaker yarns wearing out in one direction and not the other.

Blended fiber fabrics may be made from a variety of proportions of each of the fibers involved. A typical fiber blend is cotton and polyester, and the amount of each may vary widely. Cotton may exceed the polyester, they may be equal, or the polyester may exceed the cotton. For the majority of blends marketed, optimum percentages of fibers have been established. Most textile scientists agree that in blends of polyester and cotton, the percentage of cotton should range from 35 percent to 50 percent if the fabric is to combine properties of easy care, durability, and comfort. If easy care and durability only are most important, the polyester component may be as high as 80 percent. When comfort is the most important factor, cotton may reach the 80 percent level. Some typical examples of blended fabrics and the properties they will give include:
<table>
<thead>
<tr>
<th>FIBER</th>
<th>TO PROVIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyester and cotton</td>
<td>Easy care, durability, comfort</td>
</tr>
<tr>
<td>Rayon and acetate</td>
<td>Appearance and draping qualities</td>
</tr>
<tr>
<td>Silk, veeana, and cashmere</td>
<td>Prestige</td>
</tr>
<tr>
<td>with lower prestige fibers</td>
<td></td>
</tr>
<tr>
<td>Linen with rayon or polyester</td>
<td>Stiffness and appearance</td>
</tr>
</tbody>
</table>

**DIALOGUE FOR CRITICAL THINKING:**

**Share:**
Q. What is a blend?
A. A mixture of fibers spun into a yarn.

Q. What does warp mean?
A. The lengthwise yarns of a woven fabric.

Q. At what point can fibers be blended in the fabrication process?
A. At every stage.

**Process:**
Q. What would the performance of a 60 percent wool, 40 percent acrylic fabric be?
A. Comfortable to wear, less expensive than all wool, bulky, stable.

Q. Why are blends so popular with the consumer?
A. Easy care, makes expensive fibers less expensive, improves wear and garment life.

**Generalize:**
Q. How can you be more observant when selecting a garment or fabric to know if it is a blend?

**Apply:**
Q. If you were working on a space team, what textile properties would you be most concerned about? Why?

**GOING FURTHER:**
- Visit a local fabric or retail store to read and compare labels and the properties of the item when fiber content is considered.
- Try dyeing swatches of various blends to evaluate how the different fibers “take” or absorb them.
- Start a scrapbook or swatch book of various fabrics and their fiber content and compare how frequently various fiber blends are found. (Both apparel and home furnishings.)
Leader Notes

REFERENCES:

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BLENDED FIBERS
CLOTHING & TEXTILES, LEVEL II, TEXTILE SCIENCE
Activity Sheet

Properties of Fibers Used in Blends

<table>
<thead>
<tr>
<th>Property</th>
<th>Acetate</th>
<th>Cotton</th>
<th>Nylon</th>
<th>Polyester</th>
<th>Rayon</th>
<th>Wool</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abrasion or wear resistance</td>
<td>😞</td>
<td>😞</td>
<td>😞</td>
<td>😞</td>
<td>😞</td>
<td>😞</td>
</tr>
<tr>
<td>Absorbency</td>
<td>😞</td>
<td>😞</td>
<td>😞</td>
<td>😞</td>
<td>😞</td>
<td>😞</td>
</tr>
<tr>
<td>Resistance to piling</td>
<td>😞</td>
<td>😞</td>
<td>😞</td>
<td>😞</td>
<td>😞</td>
<td>😞</td>
</tr>
<tr>
<td>Wrinkle recovery</td>
<td>😞</td>
<td>😞</td>
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<td>😞</td>
<td>😞</td>
</tr>
</tbody>
</table>

Using the above chart, speculate what will be the most desirable, compromised or least desirable properties of the following blends:

<table>
<thead>
<tr>
<th></th>
<th>Most Desirable</th>
<th>Compromised</th>
<th>Least Desirable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetate and Rayon</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cotton and Polyester</td>
<td></td>
<td></td>
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<tr>
<td>Rayon and Wool</td>
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<td></td>
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<tr>
<td>Rayon and Polyester</td>
<td></td>
<td></td>
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<tr>
<td>Polyester and Wool</td>
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</tbody>
</table>
**BLENDED FIBERS**  
**CLOTHING & TEXTILES, LEVEL II, TEXTILE SCIENCE**  
**Activity Sheet, Leader’s Key**

<table>
<thead>
<tr>
<th>Properties of Fibers Used in Blends</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Most Desirable</strong></td>
</tr>
<tr>
<td>Acetate and Rayon</td>
</tr>
<tr>
<td>Cotton and Polyester</td>
</tr>
<tr>
<td>Rayon and Wool</td>
</tr>
<tr>
<td>Rayon and Polyester</td>
</tr>
<tr>
<td>Polyester and Wool</td>
</tr>
</tbody>
</table>
The Dye and Printing Process

What Members Will Learn . . .

ABOUT THE PROJECT:
• The methods used to dye fibers
• How fibers are printed
• When fibers and fabrics are colored

ABOUT THEMSELVES:
• The importance of following directions for successful results
• Confidence and creativity in using color on fabric

Materials Needed:
• Copies of Activity Sheets
• See supplies needed in the Activity Sheets (members may decide at a previous meeting to tie-dye a T-shirt)
• *Bleach or Dye* with Janet Prey video, order by calling 800-944-0213, from Islander School of Fashion Arts, cost is $39.95 plus $5 shipping

ACTIVITY TIME NEEDED: 60 MINUTES

ACTIVITY:

We have talked before about how important color is in our decision to buy clothing. We also know where dyes come from. Today, we are going to talk about how color is added to fabric. A general rule is that the earlier the color is added in making the fabric, the better the penetration, however, the later it is added the more economical the process. Consequently, consumers often prefer fiber or yarn dyeing over piece dyeing, whereas manufacturers may prefer piece or product dyeing.

There are several different methods to dye fibers solid colors (remember fibers are tiny strands of material that when twisted together make yarns, and are about the size of a human hair). We are going to discuss each method.

Dyeing

_Fiber Dyeing Process_—The fiber is dyed before yarn spinning. This is an expensive method. It may be achieved at any of these stages.

1. Mass pigmentation (also called solution dyeing)—colored pigments or dyes are added to the spinning solution; each fiber is colored as it is spun. (This is used with man-made fibers and cannot be used on natural fibers.)
2. Gel stage—color is added to the fiber while in the soft gel stage.
   (Again, only used on man-made fibers.)
Leader Notes

3. Stock dyeing—dye is added to loose fibers before spinning (natural or man-made).
4. Top dyeing—dyeing the loose fibers left from fiber combing (natural or man-made).

The loose fibers are wound into balls, placed on spindles with holes, enclosed in a tank with dye. The dye is then pumped back and forth through the spindles.

Yarn Dyeing—The yarns are dyed after being wound on either skeins, cones, packages, or warp beams. (These are containers used by manufacturers to store yarn for specific manufacturing processes, i.e. warp beams are used to hold the warp yarns on a loom while weaving fabric.) This method is less costly than fiber dyeing but more expensive than piece dyeing and printing. This is often used to produce stripes, checks and plaids in woven fabrics. Yarn dyed fabrics often exhibit structural design. A gingham fabric is an example.

Piece Dyeing—This method is when an entire bolt or roll of fabric is dyed. This usually results in solid color fabrics. It is usually less costly and allows decisions on color to be delayed so that fashion trends can be followed more closely. Sub categories of piece dyeing include:
1. Cross dyeing—piece dyeing fabrics of different generic groups or by combining acid and basic dyeable fibers of the same generic group. The characteristics of the fibers are selective and absorb only the type of dye compatible with each fiber thus resulting in different colors in the fabric.
2. Union dyeing—piece dyeing fabrics from different fiber groups—but the result is a solid color. To achieve this, dyes of the same hue (color) are made from different compositions to be suitable to the fibers present in the piece. These dyes are mixed together in the same dye bath.

The methods for piece dyeing can vary but machines are the first method of choice because they move large amounts of fabric and are most economical. However, most methods involve the use of great amounts of water and result in waste water that may cause stream pollution. For that reason, new methods are constantly being researched.

Product Dyeing—The fabric is cut and sewn into the finished product then it is dyed. Great care is needed to get a level and uniform color throughout the product. Also any finishings, trims, etc., must be carefully chosen to accept the dye similar to the fabric or results may be disappointing.

Printing
Another method of adding color to fabric is by printing. This involves using from one to several colors to add a design to a fabric surface. To check for a print, look for clear cut edges in the design on the right side of the fabric. Color seldom penetrates completely to the wrong side. Yarns raveled will often have color unevenly positioned on them. There are many types of printing. Some of them you may have done yourself. Many
designs such as paisleys, calicos, and floral prints are often printed designs. Printing is a type of applied design.

Color designs are produced by printing, using dyes in paste form, positioning dyes in fabrics using specially designed equipment, or more recently through the media of foam. The color is dispersed (spread throughout) in foam. The foam is pressed to the fabric and collapsed. Since such a small amount of color is used the colors tend to stay put and not spread to wider areas. Various processes are used to produce printed designs.

Direct Printing—The color is applied directly to the fabric in the pattern desired by a stamp or roller mechanism. Some variations include:

1. Block printing—A costly and slow method, this dates back as an ancient textile decorative technique. It involves carving a block and dipping it in dye and stamping the pattern onto fabric.
2. Direct roller printing—the fabric is wrapped around a roller then other rollers (that are engraved with the design) use the direct method to apply a color to the fabric.
3. Warp printing—in this method the warp (lengthwise) yarns are printed on prior to weaving. The weaving is then done, using white yarns as filling to soften the print appearance.

Discharge Printing—in this method color is actually removed. Usually this is done on dark backgrounds. First a fabric is dyed. Then a discharge paste (chemicals to remove the color) is printed on the fabric. The fabric is then steamed to develop the design. Dyes that are not affected by the discharge paste can be added to the paste to dye the areas another color. NOTE: Discharge printing has good color penetration on both sides with some less color removal on the wrong side. Direct printing has much less color (background) on the wrong side than the right side. The chemical discharge paste may cause fiber weakening.

Resist Printing—This basically involves preventing color from entering a piece of fabric. Some methods include:

1. Batik—a hand process in which hot wax is poured on a fabric in the form of a design. When the wax is set, the fabric is dyed, light colors first. Then, more wax is added to cover portions and the fabric is redyed until the design is complete. The wax is then removed by a solvent. This method results in expensive fabrics because of the labor intensity of the procedure.
2. Tie-dye—another hand process where fabric is wrapped in areas with string or thread. It is then dyed and the string removed. It results in areas left undyed that make a type of starburst pattern.
3. Ikat—in this method the yarns are tied before dyeing, much like tie-dye. Then, they are dyed, dried and at that time woven. Sometimes, only the warp yarns are dyed, only the filling yarns or both.
4. Screen—this is often used on small yardages of 50 to 500 yards and for large designs. There are several types of screen printing:
   a. Flat screen—flat screens are laid onto a fabric with the design for a color cut out. The color is forced through the screen with a
squeegee. New screens are placed for each different color and the process is repeated.

b. Hand process—two people place the fabric on a long table. They place a screen (with design cut out) on the fabric, apply color, move screen to a new position and repeat the process.

c. Automatic process—the fabric is on a conveyor belt. Flat screens are above the belt and lower automatically. The color is then applied automatically and the fabric is fed into ovens to dry.

d. Rotary process—this is done with cylindrical metal screens and the fabric feeds continuously. There is no need for stopping to lower screens. The metal screens are cheaper than the rollers used in direct printing. This method is offering competition to traditional roller printing.

Stencil Printing—This is similar to screen printing except the design is cut from wax paper or thin metal sheets. A separate sheet is used for each color. The color is usually applied in the form of a very thick liquid consistency.

Jet Printing—A process that uses continuous streams of dye that are forced through jets to color the fibers. This type is commonly used in printing carpets.

There are yet a few methods we have not discussed but these are by far the most widely used. You can see why it is often difficult to know just how that color in your outfit was put there. Depending on the method used the colorfastness (color remaining true after wear and laundry) can vary a great deal. That is another reason to follow your clothing care labels to ensure a longer garment life for your clothing items.

It is important to determine whether the design is a structural type (i.e. stripes woven into a fabric using yarn dyed yarns) or applied design (i.e. stripe printed onto the fabric using some type of printing process, for example direct roller or screen printing). Since structural design is a structural part of the fabric, it generally performs better than applied design, since it is usually only added to the surface of the fabric.

Using activity sheets provided, have members do piece or product dyeing using the Kool-Aid as a fabric dye and/or do a printing process such as resist-batik, tie and dye, block (potato) printing, freehand painting, or sponge printing. Additional instructions for tie and dye printing and natural dye printing are also available in Lesson, “Color and Design on Fabric,” Level II. Have members evaluate the colorfastness of their selected dyeing or printing project by doing the colorfastness test described on the Activity Sheet. Have them prepare a 2 x 2-inch swatch of the same fabric they are dyeing or printing to be used for this purpose.
DIALOGUE FOR CRITICAL THINKING:

Share:
Q. What kind of printing or dyeing did you try?

Q. What was the most interesting part of the process to you? Why?

Q. What natural resource is used in large quantities in the dyeing process?
A. Water.

Process:
Q. What, if any, methods of coloring have you tried on clothing or fabric before?
A. Answers will vary, tie-dye, sponge, solution dye, direct printing, etc.

Q. What is the difference between dyeing and printing?
A. In dyeing a fiber, yarn, fabric, or piece is put into a solution for it to absorb a color. In printing a color or dye is put onto certain areas of a yarn, fabric or piece, to result in a colored design.

Generalize:
Q. When have you dyed or colored something by accident?
A. Food stain, grass stain, washing dark and white clothes together, etc.

Q. Why is it important to understand how fabrics get their color?

Q. Why are some processes more costly than others?

Apply:
Q. Describe another situation you have experienced when it was very important to follow directions carefully.

GOING FURTHER:
• Tours of any coloring operation. Even non textile related will help demonstrate, for example, newspaper.
• Tour fabric store to attempt to determine method of color addition in various bolts of fabrics.
• Other dyeing or printing demonstrations.
REFERENCES:

Textiles, Norma Hollen, Jane Saddler, Anna Langford, Sara Kadolph,
Macmillan Publishing Company, 866 Third Avenue, New York, New
York 10022

Clothing Leader Guide, Ann Bearn, Alma Fonesca, Teresa Criswell, and
Melanie Huntos, Texas Agricultural Extension Service, Texas A&M
University System, College Station, Texas

Voss Jasper, University of Wisconsin

SewQuick, University of Wisconsin

Bleach or Dye with Janet Prey video, order by calling 800-944-0213, from
Islander School of Fashion Arts. Cost is $39.95 plus $5 shipping.

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Design Team
THE DYE AND PRINTING PROCESS
Clothing & Textiles, Level II, Textile Science
Activity Sheet

Dyeing Process and Printing Process

1. Kool-Aid as a Fabric Dye?

**Material:**
- Kool-Aid (without sugar)
- Crock pot
- Cotton fabric or clothing (prewashed)

**Directions:**
1. Place 6 cups hot water in a crock pot.
2. Turn crock pot on high.
3. Dissolve one package Kool-Aid in a small amount of the hot water. Pour into pot.
4. Wet cloth with water and squeeze out as much as possible.
5. Place wet cloth in crock pot, making sure all cloth is in the “dye” solution.
6. Leave in crock pot for 30 minutes.
7. Hang on hanger to dry.
8. Once dry, the “dye” is very permanent!

For darker colors, leave in crock pot for one hour or use two packages of Kool-Aid.

Kool-Aid flavors that work well are: Black Cherry, Lemon-Lime, Berry Blue (2 packages), Strawberry and Grape. Lemonade flavor doesn’t work!

2. Leader will show a few samples of fabric with woven or knitted designs, printed designs, and applied designs other than color. Then distribute a variety of fabrics for members to determine whether fabric design is done during construction or applied after fabric is made.

**Supplies:** woven and knitted designs—a variety of patterned fabric samples including as many of the following as possible: stripes, plaids, tweeds, checks, damask or brocade, argyle knit, Fair Isle knit or other knit in several colors, boucle’ fabric (knit or woven), applied designs—floral prints, printed plaids or stripes, eyelet, plisse’, paisley.

3. Examine an assortment of fabrics with constructed designs. Determine if the design is made through the use of color, texture, or a combination of things.

**Supplies:** samples of fabrics such as checks, plaids, tweeds, boucle’ fabrics, satin-stripe fabric in a solid color, damask, etc.

4. Tie-dye fabrics with different fibers and compare results. (consider ideas from the video)

**Supplies:** purchased fabric dyes, large stainless steel or glass bowls, rubber bands or string for tying fabric, samples of white fabric in a variety of fiber contents but without special finishes (e.g., 100 percent cotton muslin, 100 percent nylon tricot, 100 percent polyester lining, 100 percent acetate lining, etc.)
THE DYE AND PRINTING PROCESS
Clothing & Textiles, Level II, Textile Science
Activity Sheet

Dyeing Process and Printing Process, continued

5. Make a batik design on fabric for use in a project. (consider ideas from the video)

**Supplies:** purchased fabric dyes, wax, large stainless steel or glass bowls, stove for melting wax, inexpensive paintbrushes, batik instructions (check encyclopedias, craft books, county Extension office, etc.), white or natural cotton fabrics (members may bring their own).

6. Discuss how patterns were achieved in the fabrics being worn.

7. Design fabric patterns and print or dye fabrics for projects. Methods may include potato (block) printing, tie-dyeing, free hand painting, sponge printing or embroidering. NOTE TO LEADER: Members may wish to print on a garment, such as faded jeans or on an accessory, such as a purchased scarf or fabric purse.

**Supplies:** fabric, rubber bands or string, potatoes, sponges, purchased fabric dyes, large stainless steel or glass bowls, clean artists’ paintbrushes, embroidery thread and embroidery needles.

8. Make and use natural dyes on yarn fabric for a project. Some suggested dye sources are onions, beets, pecan or walnut shells, chrysanthemums and tea leaves. Crush the fruit, flowers, leaves, shells, etc., to be used. Heat them in water and let stand until water is heavily colored. Strain out vegetable matter. Heat the fabric in the colored water and let cool. Rinse, dry, iron if needed. (Note: vegetable dyes are not colorfast to laundering.)

**Supplies:** dye sources, water, fabric to be dyed, glass or stainless steel pans, strainer, iron.

9. Dye Colorfastness—to identify the dye colorfastness when laundering an item with other garments.

**Supplies needed:**
- 2 × 2-inch swatch of bright or dark color woven or knit fabric, small samples of white fabrics of cotton nylon, polyester, or cotton/polyester blend, pint jar with lid, laundry detergent, warm water

**Procedure:**
1. Put 1 cup of warm water and 1 teaspoon of detergent in the pint jar.
2. Add the colored fabric swatch and small white fabric swatches to the water and detergent solution. Put the lid on the jar.
3. Leave the fabric in the solution for 8 to 10 minutes. Shake the jar frequently during this time to simulate washing action.
4. Observe the color of the solution.
5. Remove the swatches from the jar. Allow samples to dry.

**Results:**
Did any of the dye discolor the water and detergent solution? Did the white fabric samples become discolored? If yes, do not wash a garment made from this particular dyed fabric with other garments. (Implication: if you have a new dark-colored garment and are not sure of the dye colorfastness, wash it separately with a sample of white fabric. Check the water and white fabric sample to see if you must continue to wash it separately.
When Clothing is More Than Something to Wear

Clothing & Textiles, Level II, Textile Science

What Members Will Learn . . .

ABOUT THE PROJECT:
• Clothing is functional as well as decorative
• The thermal function of clothing
• Special clothing is designed to meet special demands
• Special fabrics are used for meeting these special needs

ABOUT THEMSELVES:
• Selecting appropriate clothing requires good decision-making skills
• A greater appreciation and awareness of careers in the textile industry

Materials Needed:
• Swatches of special fabrics (water repellant, polar fleece, fluorescent, Gore Tex, camouflage, reflective, etc.)—ask for “Textile Up-date—‘93,” 3-ring binder from the Area Extension office, which shows example of these fabrics
• Examples of special clothing designed for a purpose or job (fireman’s coat, diver’s suit, bullet-proof vest, hospital isolation gown, astronaut’s glove, etc.)
• “Blue Sky Below My Feet, Fiber and Fabrics” video, available through your county Extension office
• Television and ½-inch VHS video player

ACTIVITY TIME NEEDED: 45 MINUTES

ACTIVITY:

When we think of clothing most generally we think of fashion, color, style or fit. These are the aesthetics of clothing. (Aesthetics—the appeal to the eye, or the art and beauty.) There are times when aesthetics take a back seat to the function of clothing. Can you name some of these times? (Hot or cold weather, work, sports, protection.)

We often choose clothing because we like how it looks on us. As the “Blue Skies” video identified, there are times we need to choose clothing for a different reason. In Kansas, most people have clothing for both hot and cold weather. Clothing has been used for protection since the beginning of time. Before the discovery of man-made fibers our choice of clothing was quite limited. For cold weather, animal skins and fur were harvested. These, along with the layering of clothing, provided warmth. With all the new fibers, yarns, fabrications and finishes, our ability to protect ourselves as well as designing special purpose fabrics is greater than ever before.

Leader Notes

Have everyone gather in a comfortable place. Allow time for them to introduce themselves if they do not know each other. Also, have each member tell one item they have worn at some time for a reason other than how it looks. (Coats, hats, mittens, catcher’s mask, football pads, reflective suit or shoes, hunter’s vest, camp clothing, apron, others.) View “Blue Sky Below My Feet, Fiber and Fabrics.”
Let’s look at the simple task of keeping warm to demonstrate how different fibers are used for different situations.

The following principals are considered in keeping warm.
1. Covering all parts of your body. Bare feet, hands, and head lose great amounts of heat. To keep heat within your body, covering all these areas will greatly help.
2. Dress in layers. Dressing in layers retains heat from the body by using the principle of “insulation.” Insulation is the property of trapping warm air in air pockets or between layers. One insulation factor of fabric is the loft (the fuzziness or pile). As a general rule the thicker the fabrics used, the warmer the garment will be. The thickness acts as the insulator to trap air and allow your body heat to warm it. Dressing in layers also allows for better moisture absorption as well as allowing for the removal of layers as the wearer becomes warm. This helps keep the body dry by avoiding unnecessary sweating.
3. Keep the body dry. A dry body has a much easier time maintaining a normal temperature. Wetness from the weather or from perspiration can cause chilling and the body temperature is more difficult to maintain.
4. Absorb energy from the environment. Try to gather heat from the outside. Dark colors are warmer to wear because they absorb heat from the sun.
5. Wear fabrics that are insulative. These fabrics slow body heat transfer to the environment. Products that are insulative are made of thick, fuzzy fabrics, or down filled and synthetic filled (i.e., Thinsulate and Polarguard) fabric systems. (Layers of different fabrics that serve different purposes.)
6. If you are in a windy environment, it is important to stop air movement within the clothing system. A windbreaker worn over layered clothing will be a very effective system.

The insulative value of a fabric is expressed as “thermal resistance.” Factors that determine this are:
1. The material’s ability to hold a large amount of air to fiber.
2. The fabric’s thickness.
3. The fabric’s resistance to moisture.
4. The orientation (placement) of fibers on the fabric surface.
5. The color and texture of the fabric.
6. The design of the structure (the weave, stiffness, etc.).

If all these are considered in keeping warm, what should we do in the summer when we want to keep cool?
1. Remove clothing cover, except for hats—they act as shades to allow the head to keep cool.
2. Reduce layers. Use thin layers to help wisk away moisture and allow it to dry. But limit layers to only a few.
3. Reflect the sun’s heat. Wear light colors to do this. They do not absorb as much heat from the environment.
4. Wear reflective fabrics. This will reduce environmental heat transfer to the body.
5. Allow for freedom of movement. Non-binding, loose clothing allows for air to dry perspiration and keeps additional perspiration from overexertion to a minimum.

There are other situations where thermal protection is needed. Some of these include: scuba diving, professions that expose workers to water at various temperatures, fire fighters, race car drivers, aircraft pilots, astronauts and occupations which expose workers to the sun. Let me tell you about one of these situations and the garment that has been designed just for this purpose.

An aircraft pilot may have to eject from a plane over water. The suit must be one piece to be worn at all times since chances are he/she will not have time to change. This suit needs ventilation since the cockpit gets quite warm. It must also protect in the water if there is the need. The resulting garment is a three-layer, one-piece suit. The outermost layer is flame resistant Nomex. This protects against a burning plane. The next layer is nylon Gore Tex, a breathable, waterproof layer. That allows for comfort on board the hot plane, but would keep water out in case of a water landing. Also, the ankles, wrists, and neck have rubberized cuffs to further keep out water. The layer closest to the skin is an inflatable thermal barrier (two-layer, thin, waterproof fabric fused together around a ventilation hole). If the pilot is caught in water he/she can manually inflate this layer to provide warmth and help float.

Other situations that have special designs just for them are impact resistant clothing. Things like bullet-proof vests, helmets, boxing gloves, sports pads, and other industrial protective clothing fall into this category. Another more recent development is in radiation protective garments. These classify as impact resistant clothing also due to the need to resist the impaction of very tiny radiation molecules, gases, chemicals, viruses and bacteria.

Another situation when clothing is more than something to wear is in the disabled designs that allow for independent living. Many persons from elderly to disabled to temporarily recuperating persons choose clothing so they can continue to care for themselves. Special fasteners, knee braces, foot mops—all these and many more allow for personal dignity in the area of self dressing and living.

Don’t forget special designs that aide in professions. Items such as carpenter’s apron, photographer’s vest, life preservers, nurse emergency smock, wide-brim hats to protect from the sun, and many others are available. There are many more to be designed—maybe by you!
DIALOGUE FOR CRITICAL THINKING:
Share:
Q. What three parts of your body lose great amounts of heat?
A. Feet, hands, and head

Q. What is thermal resistance?
A. The term used to judge how well a fabric acts as an insulator (the ability of it to hold large amounts of air).

Process:
Q. What did you learn form watching the video that was most interesting to you?

Generalize:
Q. What are any of the special textile items someone you know of uses in their work?
A. Answers will vary. Briefcases, hospital gown, boots, hard and wide-brim hats, help members think of why they would need these items.

Q. What decision-making criteria do you need to think about when deciding what to wear?

Apply:
Q. Pretend you are asked to design a garment for someone who bakes in a bakery all day, what would it look like?
A. White color to disguise the flour; cool fiber because the ovens would be hot; short sleeves for safety (can get caught in equipment); loose fitting (but not too big) to allow for coolness but not cause a safety hazard. Maybe an over-apron to wipe hands on without soiling or wetting the garment close to skin. Other suggestions may also be appropriate.

GOING FURTHER:
• Tour an industry or place of work with the emphasis being the garments used for that particular type of work.
• Begin a scrapbook about special work clothes for various professions.
• Rate various fabrics for their thermal resistance.
• Do a club project on reflective awareness for the community (runners, children, etc.).
• Begin a notebook of special fabrics, such as repellant, polar fleece, flourescent, Gore Tex, etc.
• Study how to prevent skin cancer. Check out “Protecting Against Ultraviolet Radiation—What Do We Know, What Should We Know?” (From Area Extension office.)
REFERENCES:
Dress to Meet the Cold, Janis Stone, Extension Clothing Specialist, Iowa State University, North Central Region Extension, Umberger Hall, Kansas State University, Manhattan, Kansas 66506
Clothing, The Portable Environment, Susan Watkins, Iowa State University Press, Ames, Iowa 50010
Protective Clothing and Equipment video, Pesticide Certification Series, North Dakota State University Extension Service, Fargo, North Dakota
Blue Sky Below My Feet, Fiber and Fabrics, video, produced by National 4-H Council, Kansas State University, Umberger Hall, Manhattan, Kansas 66506
Protecting Against Skin Cancer—What Do We Know, What SHould We Know?, Area Extension offices, Kansas State University

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What Members Will Learn . . .

ABOUT THE PROJECT:
• How to recognize dyed fabrics
• How to recognize applied designs such as printing, flocking, and embossing

ABOUT THEMSELVES:
• Creativity by self-dyeing and printing of fabrics or garments

Materials, Resources Needed:
• Samples of various printed and dyed fabrics, 10 × 10-inch samples
  If doing tie-dye:
  • 100 percent cotton T-shirts
  • Thread or rubber bands
  • One to two colors rit dye
  • Mixing container or sink
  • Hangers to hang wet T-shirts on
  • Access to water
  If doing printing activity:
  • Fabric to cut and sew later, 100 percent cotton or cotton T-shirts
  • Household utensils to print with—sponges, wooden blocks, potato masher, wire whip, forks, strainer, etc.
  • Fabric paint or crayons, various colors
  • Bleach or Dye with Janet Prey video (See reference section of this lesson for ordering information.)

ACTIVITY TIME NEEDED: 60 MINUTES

ACTIVITY:
We have discussed how fabrics are made into a solid color. That is referred to as? (dyeing) We said dyes can be made from natural dyes and pigments, or made in a laboratory.

Most items we buy are either a solid color, a printed fabric or a mixture of both. There are several different methods used to get these looks. Today, we will talk about some of these methods.

First we will talk about dyeing. Dyeing is the process of taking a piece of fabric or yarns and putting them in a container that contains the dye solution. This allows the fibers in the yarns to absorb the color and penetrate throughout the fabric. A result will be fairly even color on both sides of the fabric.
Leader Notes

Applied design processes are also used to add color to a surface design. Applied design processes do not produce evenness of color or design on both sides of the fabric and can be recognized by looking at the front and back of fabrics, or by raveling yarns and observing differences within the yarn. Printing is like painting on the fabric surface. It can be done by many different techniques. One way is by using blocks that are carved (much like stamps and stamp pads). Another is like stenciling—when a cutout screen or metal sheet is placed on the fabric and a color is painted on. A different cutout screen is placed on the fabric to add another color. This is repeated until a pattern is developed.

Color is added in very small amounts. This printed color will often change the feel of the fabric by adding more stiffness to it. Have you ever seen wall paint spilled on a rag or clothing item? How does the item feel when the paint dries? (stiff) Even though the amount of color on the fabric is small, it works the same way by hardening and making the fabric stiffer. One way to know a printed fabric is to look at the right and wrong sides. The right side has much more detail and color. If you unravel the yarns you’ll notice how deep the color penetrates. Since the color is printed on—it is brighter on the right side. This is a clue the pattern was printed—not dyed.

Besides adding color the same method can be done to add flocking in place of color. Flocking is a fuzzy pile that when applied forms a design.

If you find a fabric with two different patterns on each side that fabric may have been printed on both sides.

In the case of some plaids, the yarns are dyed before weaving then the plaid is made by weaving different colored yarns. Also some patterns can be done this way. Usually, the unraveled yarns are separate colors.

One other method of getting a pattern is to first dye a fabric a solid color. Then, a bleach is added in a design and the bleach removes the color from the dyed fabric in the pattern design. This leaves the design in white on the dyed background. When unraveled the color penetration would be gone on the individual yarns. Bleaching to remove color may make the fibers weak.

The last design that is sometimes seen on fabrics is embossing. This gives fabrics a design by humping up the design in the fabric. It is done separately from printing but often both methods will be done on the same piece of fabric. In this process a fabric is run through rollers pressing together. The rollers are cut in a design and the fabric is pressed between them (think of a waffle iron). As the fabric comes out it is “embossed”—the design is sticking up. If the fiber is “set”—slightly melted—by heat the design is usually more durable. This can be done with man-made fibers. If it is not “set” then the embossing will disappear when washed and/or ironed. This is most common in fabrics made of natural fibers, since natural fibers cannot be heat set. As a general rule, fabrics that have
applied designs, i.e., printed, flocked or embossed, are less durable than those that have structural design, i.e., the yarns are first dyed and a design is woven into the fabric.

**DIALOGUE FOR CRITICAL THINKING:**

**Share:**

Q. What happened when you unraveled a dyed fabric?
A. The yarns looked evenly colored on both sides.

Q. What happened when you unraveled a printed fabric?
A. The yarns look brighter on one side.

**Process:**

Q. What may happen in a dyed fabric that has the print made by adding bleach to remove color?
A. The fibers may be weakened.

Q. Why do some printed fabrics fade after wearing and laundering?
A. Color on the surface is washed or worn away.

**Generalize:**

Q. What happens to clothes or fabrics that are bleached a lot?
A. The colors fade; they get whiter; they wear out faster.

Q. Which would you expect to look new longer—a printed bath towel or a plaid bath towel made with yarns dyed before weaving the plaid?
A. The plaid, due to deeper dye penetration of the structural design.

**Apply:**

Q. If you printed or dyed a project, what would you do differently next time?

**GOING FURTHER:**

• Have someone do a batik demonstration.
• Tour a factory or festival that demonstrates dyeing.
• Emboss fabric with iron over house hold items.
• For other ideas, see Level I, “Design Basics,” or Level II, “Wearable Fiber Art.”
REFERENCES:
Bleach or Dye with Janet Prey video, order by calling 800-944-0213, from Islander School of Fashion Arts. Cost is $39.95 plus $5 shipping

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Man-Made Fibers
*Clothing & Textiles, Level II, Textile Science*

What Members Will Learn . . .

**ABOUT THE PROJECT:**
- What a “man-made” fiber is
- What “man-made” fibers are made from
- The advantages and disadvantages of “man-made” fabrics

**ABOUT THEMSELVES:**
- How to use the features of “man-made” fabrics in decision-making about garments
- An appreciation of science and technology in clothing production
- Personal decisions about clothing and textiles impact their environment

**Materials Needed:**
- Apple or IBM/IBM Compatible computer
- Compatible software “Fiber Basics” by Learning Seeds (request to borrow copies from Area 4-H Offices, or your county can purchase a copy for $10 by contacting the State 4-H Office); OR
- 9 × 6-inch samples of the following fabrics:
  - 100 percent polyester
  - Cotton/polyester blend
  - 100 percent nylon
  - 100 percent acetate
  - 100 percent rayon
  - 100 percent acrylic
  - Modified acrylic
  - Spandex
- Fingernail polish remover
- Iron—old one that may get dirty
- Iron cleaner
- Chlorine bleach
- Matches
- 3 to 4 Foil pie pans
- Copy of Member Handouts and Activity Sheets

**ACTIVITY TIME NEEDED:** 45 MINUTES

**ACTIVITY:**
Today, we are going to talk about the very basic ingredients in fabrics. Just like a cake, a piece of fabric is a combination of smaller units and when put together give us a new product. Fibers are the basic components of fabrics. Fibers come from two different sources. They are found in nature or they are made in laboratories from special products. Depending

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**Leader Notes**
Have everyone sit around a table. Allow for members to introduce themselves.
Have each member read the fiber content label of the clothing of the member next to them. Identify any –“man-made” fibers that are read. You begin.
Pass out samples of each for members to feel. Have members gather around computer on which you have loaded the software “Fiber Basics” by Learning Seeds, and complete the mini-units on polyester, nylon, rayon, acetate, acrylic, and spandex. Assuming in a previous session (Lesson “Natural Fibers,” Level II) the members have completed the mini-units on natural fiber, cotton, wood, silk, and linen, have them finish the session with the “Fiber Match Challenge.” You may also want to give them a printed review quiz provided in the software if you have a printer available, or copy and use the Review Quiz Activity Sheet with this lesson.

Pass out member handout, “Man-made Fiber Facts” as you review this information starting with Rayon.

Heat iron. Place rag or brown paper over ironing board or surface you will press on. Lay rayon on surface. Press with iron on cotton setting. If not hot enough to scorch fabric, turn temperature up to linen setting to show what happens to rayon fabric when ironed on too high of temperature. Do the same with a portion of the acetate sample. Be prepared for the sample to melt and to clean the residue from your iron. Next, put the remaining portion of the acetate sample in foil pie plate. Take acetone containing finger nail polish remover and pour on sample (1 teaspoon should be enough) allow sample to set and observe during the remainder of meeting.

on the source they are called either “natural” or “man-made.” Can you guess where natural fibers come from? (Nature—cotton, linen, wool and silk are the major ones, refer to “Natural Fibers,” Level II). Man-made fibers are produced in factories that take a product or basic elements and change or synthesize them so they become a fiber. This requires the science of chemistry and many steps and much change to the product. Many of these fibers are made very similar to the way the materials used to make a plastic drinking glass are made. Man-made fibers are also called “synthetic or manufactured” fibers. Once this is done, the fibers are twisted into yarns and the yarns are then woven or knitted into fabric.

The major Man-made fibers come from two products. Petroleum products (oil) and cotton linters or wood pulp. Oil gives us polyester, acrylic, nylon and spandex. Cotton linters or wood pulp can be turned into acetate and rayon.

Rayon—The oldest man-made fiber, usually comes from wood pulp. It was first produced in France in 1889. It is very silky and smooth and was called “artificial silk” until 1924 when its name was changed to rayon. It is very versatile and can be produced with varying textures to mimic any of the natural fibers.

Advantages:
• Versatile and inexpensive. Used widely in blends.
• Very absorbent, it is comfortable to wear and takes dyes well.
• Can be made flame retardant.
• Moth resistant.
• Nice drape and soft hand (feel).

Disadvantages:
• Unless modified it is weak when wet.
• Wrinkles unless treated.
• Shrinks unless treated.
• Damaged by high temperature.
• Damaged by mildew unless treated.
• Dry clean only unless blended—then follow care labels.

Acetate—Acetate was produced after World War I. It is also usually a wood pulp product. It’s known for it’s shiny, silky appearance.

Advantages:
• Inexpensive and versatile.
• Nice look, and hand.
• Breathes more than other man-made fibers.
• Naturally bright and shiny and sun resistant.
• Can be laundered or dry cleaned and bleached.
• Resists wrinkling.

Disadvantages:
• Weak when wet, dry strength minimal.
• Heat sensitive—can be damaged by iron.
• Holds static electricity unless treated.
• Harmed by chemicals containing acetone.
Nylon—The first “thermoplastic” fiber. That means soft and moldable when heated. That is how nylon is made. It is made from oil or natural gas. After a chemical reaction takes place the oil turns to flakes. These flakes are melted together and forced through a spinneret (similar to a shower head with tiny holes) to form long fibers. These are twisted together to make yarns that are then used for fabrics.

Advantages:
- Strong wet or dry.
- Can be soft and silk-like in feel.
- Easy care, no iron, drip dry.
- Can heat set pleats and creases.
- Resists mildew and moths.
- Elastic and holds shape well—widely used in carpet and hosiery.
- Can be easily blended with other fibers.

Disadvantages:
- Does not absorb moisture well.
- Tends to yellow or gray with age.
- Holds static electricity unless treated.
- Attracts oil and grease.
- May melt in hot dryer or under hot iron.

Polyester—Research on polyester began in the 1930s. Today, it is the most used man-made fiber in the world. It is the most used of all fibers (man-made and natural) in the United States. It is produced from petroleum and/or natural gas. It is used widely in products from clothing to automobile tires. Textile research keeps improving polyester and it is becoming more like natural fibers in feel and look.

Advantages:
- Strong and durable.
- Versatile, used in many items and is easily blended.
- Resists wrinkles, shrinking, and stretching.
- Easy to launder and can be heat set.
- Easy to clean except for oil based stains.

Disadvantages:
- Does not absorb perspiration (tends to be hot in warm weather).
- Picks up oil from the skin (ring around the collar).
- Pills—tiny balls form when fiber rubbed.
- Holds static electricity.
- Repeated washing may “gray” fabric (caused by the oils in the wash water attracted to the polyester).

Acrylic—a soft, bulky fiber used in many knit items. Resembles wool in feel and warmth. Made from oil and natural gas. Is mainly used in sweaters, blankets, socks and yarns. Can be blended and used in slacks, sportswear and dresses.

Advantages:
- Easy care (wash and wear).
- Inexpensive.
- Lightweight yet fluffy and provides warmth by trapping air.
- Resists wrinkling and shrinking.
- Accepts dyes well.

Leader Notes

Use second foil pie plate and hold nylon sample over it. Use match or lighter to burn corner. Show how the nylon will melt away from the flame and readily extinguish itself. Stress that this is only a demonstration and should NEVER be done at home.

Polyester—Show sample of polyester. Take blunt kitchen knife and rub against the fibers to show pilling. If your polyester sample is made of staple length polyester fibers, you may use this sample. If it is made of filament length fibers, use a cotton/polyester blend (a cotton polyester blend is only made from staple length polyester fibers. If your sample contained filament length rather than staple length fibers, the pilling demonstration would be much less effective.)

Acrylic—Pass sample of acrylic to see. Using the same procedure that you used to burn the nylon sample, try to ignite modacrylic sample. (Be sure it is modacrylic, not acrylic.)
Disadvantages:
• Pills.
• Uncomfortable to wear in warm weather.
• Holds static electricity.
• Damaged by high temperatures.
• Holds oily stains.

Another type of acrylic is modified acrylic. Through some chemical changes this fabric is similar to other acrylics except it has a very high flame resistance (hard to set on fire). It is used for children’s sleep wear, fake furs, wigs, and other items that are in need of flame retardancy.

Show spandex sample. Iron using high heat. Watch for damage. Try to stretch again.

Spandex—Spandex is produced from oil. It was introduced in 1958. It’s major characteristic is its stretchability. It is used in large amounts for next to the skin active wear.

Advantages:
• Elasticity—stretches and bounces back.
• Strong.
• Resists air, sweat, oil and lotion damage.
• Can be dry cleaned or laundered.

Disadvantages:
• Yellowed by chlorine bleach.
• Damaged by high temperatures.
• Repeated washings result in lost strength and elasticity and may cause “graying.”

DIALOGUE FOR CRITICAL THINKING:

Share:
Q. What is the difference between natural and man-made fibers?
A. Natural fibers are found in fibers naturally. Man-made fibers are chemically or physically altered to become fibers, and usually takes many complex steps in a factory. Natural fibers require complex agricultural and environmental impacts of growing, harvesting, cleaning and processing.

Q. What was one of the most interesting things you learned from this lesson? Why?

Q. Where are the majority of man-made fibers produced?
A. In the United States.

Process:
Q. What do the man-made fibers have in common that make them so desirable?
A. Most are versatile and used in many non-clothing products, easy care, inexpensive, and easy to blend with other fibers.

Generalize:
Q. Since the wear life of most man-made fabrics is much longer than natural fibers, what are some problems this may cause?
A. Garments that are out of fashion before worn out, extra items to be dumped in landfills, apparel industry needing to convince consumers that new garments are needed, environmental impact of textile production (chemicals used in production).

Q. What clothing factors are most important to you when you make a clothing purchase?

Q. Are most of your clothes man-made or natural? Why?

Apply:
Q. What could your group or you do to reduce the negative impact of the clothing and textile industry on the environment.
A. Recycle clothing, sponsor “clothes swap” with another group, inform others about the energy needed to produce man-made fibers, etc.

GOING FURTHER:
• Visit textile mill, if available, have a guest speaker that has seen one give a presentation, or borrow and show slides of a textile mill.
• Demonstrate care by using various methods of non-recommended laundering samples to show before and after results.
• Have members collect socks to give to local homeless shelter. Before giving away, read fiber content and assess for durability, staining, comfort, etc.
• Use Learning Seed “Fiber Basics” Computer Program to review.

REFERENCES:
Fiber Basics, The Learning Seed, 330 Telser Road, Lake Zurich, Illinois 60047, 800-634-4941

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Man-Made Fiber Facts, continued

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Man-Made Fiber Facts, continued

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• Yellowed by chlorine bleach.
• Damaged by high temperatures.
• Repeated washings result in lost strength and elasticity and may cause “graying.”
Fiber Basics in Clothing Review Quiz

Name: ___________________________ Date: _______________________

1. Because rayon can be treated and finished in so many ways, it is difficult to identify without reading a fiber label.
   A. True   B. False

2. If the label says ‘rayon’ you can be sure the fabric will be weak when wet.
   A. True   B. False

3. Rayon, along with nylon, acetate, and polyester, can be made to look and feel close to silk.
   A. True   B. False

4. Which of these is a material from which nylon is made?
   A. Natural gas   B. oil   C. parachutes   D. Natural gas and oil   E. none of these

5. Acrylic can be found in blankets because it
   A. resists shrinking   B. ‘breathes’   C. is warm and light   D. resists wrinkling

6. Which of these would you NOT do to spandex?
   A. press with a hot iron   B. wet clean   C. dry clean   D. launder

7. Acrylic is often found in
   A. knits   B. sweaters   C. socks   D. blends with another fiber   E. all of these

8. Which of these is true?
   A. Acetate is comfortable   B. Acetate is very strong
   C. Acetate resists static electric charges   D. Acetate is strong when wet

9. Which of these applies to nylon?
   A. expensive   B. does not hold its shape   C. dries quickly   D. subject to mildew rot

10. Judging by appearance, acetate fabrics could be confused with
    A. wool   B. silk   C. linen   D. cotton

11. What is the most obvious quality of spandex?
    A. sheerness   B. smoothness   C. stretch   D. poor wet strength

12. Which fiber is made from ingredients similar to acrylic?
    A. silk   B. rayon   C. polyester   D. acetate

13. Which of these is made from wood pulp?
    A. nylon and rayon   B. acetate and rayon   C. silk and acetate
    D. acrylic and acetate   E. none of these

123-Clothing & Textiles, Level II
Fiber Basics in Clothing Review Quiz, continued

14. Which of these applies to nylon?
   A. expensive  B. does not hold its shape  C. dries quickly  D. subject to mildew rot

15. Which of these is often a disadvantage of nylon?
   A. Does not absorb water well  B. hard to wash  C. mildews easily  
   D. cannot keep a crease  E. none of these

16. What comes out of a spinneret?
   A. Spun Nylon  B. Filament nylon  C. Nylon fabric  D. None of these

17. 100 percent polyester voted most popular by joggers.
   A. Might be true  B. No Way

18. Polyester is the ‘number one’ fiber in the U.S.—second in the world.
   A. Might be true  B. No Way

19. Polyester judged best for traveler living out of suitcase.
   A. Might be true  B. No Way

20. Cotton blended with polyester is less likely to shrink than 100% cotton.
   A. Might be true  B. No Way
Fiber Basics in Clothing Review Quiz

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<th>Answers</th>
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Natural Fibers
Clothing & Textiles, Level II, Textile Science

What Members Will Learn . . .

ABOUT THE PROJECT:
• What is a natural fiber
• Where natural fibers come from
• That fibers are used to make yarns and/or fabrics

ABOUT THEMSELVES:
• An appreciation of nature by providing fibers to use for clothing
• How fiber content may affect their clothing decision-making

Materials, Resources Needed:
• Apple or IBM/IBM Compatible Computer
• Compatible software “Fiber Basics” by Learning Seeds (request to borrow copies from Area 4-H Office or your county can purchase a copy $10.00 by contacting the State 4-H Office).
• Eye dropper filled with water or 9 × 6-inch samples of the following fabrics
  • 100 percent cotton muslin
  • 100 percent linen (not linen look)
  • 100 percent silk
  • 100 percent worsted wool
  • 100 percent woolen
  • 100 percent nylon
• Hand-held magnifying glass
• Eye dropper filled with water
• Copies of Member Handouts

ACTIVITY TIME NEEDED: 60 MINUTES

ACTIVITY:

When we talk about clothing we refer often to the word fabric. The basic building blocks of fabrics are “fibers.” Fibers may be twisted together to form yarn which are then woven, knitted or in some other way entwined to from a fabric. Sometimes fibers are not made into yarns but directly form a fabric, such as a felt or nonwoven. Fabrics can be soft and drapable or rough and stiff. Many items we buy we choose because of the fiber properties affecting the fabric’s appearance, comfort and durability.

Textile fibers can be divided into two groups according to where they come from: natural fibers and man-made fibers. Natural fibers exist in nature. They come from the plants and animals in the world around us. People can make fibers from plastics, these are called man-made fibers. Today, we will talk about natural fibers. We will examine characteristics

Leader Notes

Have all members sit in a circle in a comfortable place. Have members introduce themselves to each other and state a favorite clothing item and why they like the fabric. You begin. Reasons may include comfort, coolness, color, softness, silkiness, etc.
Leader Notes

All natural fibers tend to be what we call hydrophilic (water loving) whereas manmade fibers tend to be hydrophobic (water hating). Using an eyedropper, have each of the members drop a droplet of water on the cotton, linen, silk and wool fabrics and observe how the water is absorbed by the fabric leaving an intense wet spot. At the same time, have them apply a droplet of water to the manmade fabric (i.e. nylon) and observe how the water droplet beads up and remains on the surface of the fabric longer. (You will need to conduct this experiment ahead of time to be sure your samples are responding correctly and that you haven’t chosen fabrics with finishes that prevent your demonstrating the hydrophilic nature of natural fibers. For example, if you had selected a cotton fabric that had a water or soil repellant finish on it, the fabric would resist the water due to the finish, not the fiber content.) Now lead a discussion that helps members understand how the high absorbency of natural fibers will cause the fabric to be comfortable, accept dyes easily, be slow drying, resist static charge buildup, stain easily from water born stains, and make good bath towels. Some of the points to discuss include the list on this page.

Have members gather around computer on which you have loaded the software “Fiber Basics” by Learning Seeds, and complete the mini-unit on cotton, wool, silk and linen. You may also want to give them a printed review quiz provided in the software if you have a printer available, or copy and use the Review Quiz Activity Sheet with this lesson. If you have no computer available or prefer to not use this approach proceed.

that natural fibers have in common and the individual characteristics of the four natural fibers that are used the most often in clothing which are cotton, flax (also called linen), silk and wool.

As a family, natural fibers:

- absorb moisture (are hydrophilic) which enhance comfort but causes them to dry slowly
- require extensive processing
- are only available in staple form, staple is short fiber measured in inches (except silk which is filament in length measured in yards to miles)
- cannot be solution dyed (see “The Dye and Printing Process,” Level II
- exhibit varying degrees of flammability but do not melt when subjected to heat
- are prone to wrinkling, mildew, moths and other insects
- are highly absorbent allowing perspiration to be absorbed, which means you feel comfortable, rather than uncomfortable, which is how you would feel if the perspiration were left on the surface of the skin. Also, the transfer of moisture from the skin to the environment allows evaporation to take place which cools the body.
- accept some dyes that use water as a carrier, as opposed to other chemicals. Consequently, these highly absorbent fibers can be dyed more easily and often result in intense colors.
- are absorbent fibers which hold a great deal of moisture within the fabric and causes them to dry slowly or slowly lose this absorbed moisture.
- will not build static charge (you will not get shocked) because they hold moisture in the fabric and water is a good conductor of electricity.
- will stain easily because many stains (i.e. milk, pop) are carried into a fabric by the liquid of the product, and obviously highly absorbent fibers will accept these stains more.

Based on many of the above points it is obvious that a highly absorbent fiber will make an excellent bath towel due to the fiber readily absorbing the water on the body and drying the body. Each natural fiber has its own characteristics which makes it more suitable for some uses than for others. Let’s look at each of these individually. (This can be done using the computer program, or the member handout.)
DIALOUGE FOR CRITICAL THINKING:

Share:
Q. Where does wool come from?
A. Sheep fleece.

Q. What two fibers do we get from plants?
A. Cotton and linen.

Q. What natural fiber is not produced in the United States?
A. Silk.

Q. What fiber is the most used fiber around the world?
A. Cotton.

Process:
Q. What properties do natural fibers have in common?
A. Hydrophilic properties. (absorb moisture)

Q. What will hydrophilic properties do for a textile?
A. More comfortable, dry slowly

Q. What was one of the most interesting things you learned from this lesson? Why?

Generalize:
Q. If you want a bathrobe that quickly dries your skin, in a bright color, and that doesn’t have static cling, would you choose natural or manmade fibers?
A. Natural.

Q. Why is it important to the agricultural community to develop textile finishes and processing that reduce natural fibers less desirable properties such as wrinkling and staining?
A. So they can better compete with man-made fibers and bolster the agricultural economy.

Apply:
Q. If you were a cotton grower or wool grower, develop an advertising campaign to promote natural fabrics.

GOING FURTHER:
- Demonstrate the chlorine damage to wool and silk by putting a sample of each fabric in a chlorine solution.
- Visit or invite a speaker who demonstrates wool spinning and/or combing and spinning cotton.
- Using the “Textiles,” book conduct burning and other solubility test to help members identify properties of each natural fiber.
- Look up facts about the countries that export a particular fiber.
Leader Notes

- Look at articles or advertisements for articles made of each natural fiber family: cotton, flex/ramie, silk, wool/mohair. Feel things made of each fiber. Name one or two good clothing uses for each fiber family.
- Iron sample of fabric made from each fiber to learn about response to heat and appearance after ironing.
- To do outside the meeting: select a specific fiber or fiber family and learn all you can about it—where it comes from, popular uses in apparel and home furnishing, usual care requirements, its performance characteristics and popular fabrics.
- Take a trip to see a cotton farm during harvesting (there is a limited amount of cotton produced and ginned in south and southwest Kansas). Look for a cotton gin, a spinning mill, and sheep or goats being sheared. There is “Mid-West Wool” in Hutchinson, where the grading of fleeces can be viewed. Although there are no wool mills in Kansas, encourage members to visit while on out-of-state family vacations.
- Invite a local representative of agricultural organizations such as, the Kansas Sheep Association, 1224 Road H, Emporia, Kansas 66801, 316-342-5050, to speak to the group about the fibers they represent or to speak about a career related to the production and use of natural fibers.
- Set up a “Fiber Fair” with posters and exhibits showing what you have learned about fiber sources, characteristics and uses. The “Fiber Fair” can be for your parents and friends or for a county fair.
- Make posters explaining the characteristics of different fibers to place in fabric stores to help customers learn about fibers.

REFERENCES:

Author:
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Reviewed by:
Steve Fisher, Extension Specialist, 4-H Youth Programs, Cooperative Extension Service, Kansas State University; and members of the Family Living Curriculum Development Committee and Clothing & Textiles Design Team
Natural Fiber Facts

Cotton

Cotton is the most used fiber in the world. Of all fibers worldwide cotton accounts for half of the total. Cotton fibers exist in the seed of the cotton plant. Major countries that grow cotton include China, America, Russia, India, Pakistan, Brazil, Turkey and Egypt. It brings money into these countries when they sell their extra cotton. Cotton is linked closely to America’s history, especially during the years that slaves were used to provide the cheap labor that was needed to pick and sort the cotton. The invention of the cotton gin by Eli Whitney changed the tedious sorting of cotton fibers from man to machine. Today, the harvesting is often done by people in under-developed nations where labor remains cheap.

The length of fibers in the seed determine the quality of the cotton. The longer the fibers, the smoother the feel of the cotton. This type of cotton is not as plentiful as the medium to short fibers and is usually more expensive. You may see it called “Pima or Supima” cotton.

Cotton is used: 40 percent for apparel, 19 percent for home furnishings, 16 percent for industrial (medical supplies, piece goods, thread, etc).

Advantages of cotton: (1) strong and durable, (2) inexpensive, (3) comfortable to wear in hot or cool weather, (4) breathable (it carries moisture away from the body), (5) easy to wash and stronger wet than dry, (6) easy to blend with other fibers (twist with other fibers to make yarn that has good benefits of both).

Disadvantages of cotton: (1) damp cotton mildews easily, (2) shrinks when washed (unless pre-shrunk or treated to prevent shrinkage—“Sanforized”), (3) wrinkles when washed (it needs to be ironed with a hot iron unless it has been treated to be wrinkle resistant, (4) although cotton can withstand high temperatures it burns rapidly if set on fire.

Some common cotton fabrics:

- Flannel—soft, warm and fuzzy (nap). Napped fabrics trap air and cause warmth. This principle is called “insulation.”
- Denim—woven from bulky cotton yarns. Traditionally white yarns running crosswise and blue yarns lengthwise. Today, denim may refer to blends that look similar.
- Mercerized cotton—cotton with a chemical treatment to give it a shine and additional strength. It also resists mildew.
- Oxford Cloth—cotton woven with a basket weave, using both white and colored threads.
- Terry Cloth—seen in towels and bath robes. It usually has at least one side with uncut loops. These help absorb moisture.

Flax

Another plant fiber that is not as common as cotton is flax, and used in a fabric it is “linen.” Because cotton and flax are both plant materials, they are alike in many ways. Along with ramie and other plant fibers, they are often grouped together and called cellulosic fibers. Flax is one of the oldest fibers known to man and has been found in ancient mummy burial sites as well as prehistoric dwellings in Switzerland. It comes from the stem or “bast” of the flax plant. Fibers come in small bundles from beneath the outer covering of the stem. Harvesting has not been accomplished by machine yet—so it is still done by hand. This causes a supply that is limited and is usually
Natural Fiber Facts, continued

grown in countries where labor is cheap. That is why linen is usually more expensive than other fibers. Major linen producing countries include Russia, Belgium, Ireland and New Zealand.

Advantages of linen: (1) strong fibers, (2) thick and thin fibers give a textured look, (3) nice body, (4) resists soil, (5) absorbs moisture quickly, (6) accepts dyes well, (7) resistant to insects, (8) lint free (9) can be washed and bleached easily but wrinkles and needs to be ironed at high temperatures.

Disadvantages of linen: (1) needs to be pressed when wet, (2) expensive, (3) shrinks unless treated, (4) damaged by acid and mildew, (5) low resiliency (if folded along same lines fibers may break), (6) lack of elasticity (wrinkles).

Wool

Wool is another very old fiber and the first to be spun into yarns and woven. It comes from the soft fleece of sheep that are shaved (sheared) once a year. The softest part of the fleece is the part next to the sheep and the outer edges are used for rugs and felt. The best quality wool is a product of Merino sheep. They tend to grow thinner fibers that are longer. Countries that are major wool producers are Australia, Russia, New Zealand, China, and Argentina. The United States is 10th in wool production.

Uses of wool: 73 percent in apparel, 15 percent in home furnishing (flame retardant tendencies a benefit), 7 percent in industrial felts (noise reduction when placed under heavy equipment).

Advantages of wool: (1) holds dye well (colorfast), (2) durable, (3) slow to soil, (4) wrinkle resistant, (5) can be shaped by heat and moisture (hold moisture, vapor without feeling wet), (6) initially water repellent, (7) flame retardant, (8) warm or cool depending on how the fabric is made. Wool fibers trap air because they are crinkled, and trapped air makes wool warm without being heavy; thin wool fabrics are cool because they carry body moisture away and as the moisture evaporates, it cools the body.

Disadvantages of wool: (1) weak when wet, (2) chlorine will ruin wool, (3) shrinks unless treated or blended and care labels followed, (4) scorches easily, (5) prone to insect damage, (6) some people have allergies to wool, (7) often needs dry cleaning, (8) low quality wool harsh and uncomfortable to wear; high quality wool is expensive.

Types of wool: Virgin wool—wool being used for the first time (may or may not be high quality). Recycled wool—used before as wool fabric or other product, now remade into another wool product. Worsted wools—harder, firmer yarns that are very durable. The thinness allows for a tight weave of the yarns—fabric last for years. Often made into men’s suits. Woolens—fuzzier than worsted, softer but not as strong. These are often found in sweaters.

Wool notes: Let wool garments rest before wearing. Wool may be blended with other fibers. Never hang wet wool garments—they will stretch. Other animal hair fibers include Mohair (Angora goats), Camel’s Hair (camels), and Cashmere (goat wool from particular goats in Central America).
Natural Fiber Facts, continued

Silk
Silk is considered a luxury fiber, because of its unique feel and look. It is a very old fiber traced back to 2640 B.C. It is classified as a protein fiber, since it comes from an animal source. The fiber is harvested from the cocoons of silkworms. Some light colored silk is from farmed silkworms. The silk is reeled from the cocoon before the worm matures into a moth. This results in an undamaged (unopened) cocoon that gives a single, long, fine fiber (miles long) or “filament.” Wild silk from cocoons of worms that feed on wild leaves result in brown or yellowish fibers. This type of silk is stiffer and more coarse. It is called “Tussah” silk. This is less expensive than the “Filament” silk. “Silk Waste” is what is produced from cocoons where moth matured or the fiber was damaged/broken into shorter fibers. It can be spun (similar to wool) to make use of the fibers. It is also less expensive than “Filament” silk. Major producers of silk are Japan, Thailand and China. Many attempts have been made to reproduce the characteristics of silk in man-made fibers.

Advantages of silk: (1) beautiful appearance (luster) and feel (hand/drape), (2) elastic and wrinkle resistant, (3) strong, (4) comfortable to wear (lightweight for hot weather, heavy weight for cool weather), (5) dries quickly, (6) easily dyes and prints, (7) does not shrink.

Disadvantages of silk: (1) weakened by sunlight and perspiration, (2) easily damaged by deodorants and chemicals, (3) can be damaged by rubbing or tearing, (4) damaged by high temperature and chlorine bleach, (5) expensive: 3,000 cocoons = 1 yard fabric, (6) prone to static cling, (7) loses strength when wet, (8) requires pressing after laundering, (9) damaged by insects, (10) required dry cleaning unless treated to be washable and so labeled.
Fiber Basics Review Quiz

Name: _____________________________ Date: _______________________

1. Linen is more resilient than cotton but more apt to lint.
   A. True    B. False

2. Linen is comfortable to wear but is fairly expensive.
   A. True    B. False

3. Cotton is known as a fiber that ‘breathes.’ This means it carries heat and moisture away from the body.
   A. True    B. False

4. Because cotton comes from a plant it is not strong and long lasting.
   A. True    B. False

5. Linen is subject to both wrinkling and shrinking unless treated.
   A. True    B. False

6. A wool sweater is most likely to be
   A. quite strong and heavy when wet    B. made of a woolen fabric
   C. longer lasting than a worsted      D. uncomfortable when made of merino wool

7. Wool is
   A. somewhat water repellent          B. a filament fiber
   C. strong when wet                   D. safely bleached with chlorine

8. Silk is a
   A. synthetic fiber                   B. cellulosic fiber
   C. natural fiber                    D. man-made fiber

9. Care for wool by
   A. washing in hot water              B. hanging to dry
   C. drying in dryer                   D. dry cleaning

10. Linen is
    A. a synthetic fiber                B. a fiber used in bedsheets
    C. made from linseed oil            D. from flax plants

11. Between wearings of a wool garment it is good to
    A. keep it on a hanger while damp    B. wash it frequently in a wash machine on automatic cycle
    C. let it ‘rest’ to get back into shape D. keep it in a plastic bag so moths don’t eat it

12. Which of these is a cellulosic fiber?
    A. cotton    B. wool    C. silk    D. none of these
13. What is a luxury fiber?
   A. silk  
   B. recycled wool  
   C. cotton  
   D. none of these

14. In a wool blend which percentage of wool in the blend would give you the most benefits of wool?
   A. 50%  
   B. 30%  
   C. 60%  
   D. 80%

15. Which of these is NOT a quality found in wool?
   A. Easy to wash and wear  
   B. Weak when wet  
   C. Slow to show dirt  
   D. Usually resists wrinkling

16. What kind of bleach should not be used on silk? __________________________ ________________

17. What person’s name is used to describe a cloth of cotton often used in towels and bathrobes?
   __________________________ ________________

18. Silk is a fiber made by what creature? __________________________ __________________________

19. One of cotton’s main drawbacks is that when washed it will ____________________________

20. If you have a problem with moths which would be safer to hang in your closet? Wool or linen?
   __________________________ __________________________

21. Silk from uncultivated worms has a darker color because their diets are not restricted. What do we call the silk from these uncultivated silkworms? __________________________

22. Name the kind of plant linen fibers come from. __________________________

23. Major producers of silk are __________________________ __________________________

24. Cotton can be pre-shrunk. A common treatment to help it resist shrinkage is called
   __________________________ __________________________

25. Which of these words does NOT apply to silk? Strong, breathable, elastic, smooth, comfortable, shrinks.
   __________________________ __________________________
Fiber Basics Review Quiz

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<td>18. Silkworm or silk worm</td>
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<td>19. Shrink or wrinkle</td>
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<td>20. Linen</td>
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<td>21. Tussah, raw or wild</td>
<td>(Silk)</td>
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<td>22. Flax or flax plant</td>
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<td>23. Japan, Thailand, China</td>
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<td>24. Sanforize or Sanforized</td>
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Pattern Basics

Clothing & Textiles, Level II, Creating with Fabrics and Fibers

What Members Will Learn . . .

ABOUT THE PROJECT:
• How to choose a pattern appropriate for them and their sewing skill level
• How to layout and pin a pattern to fabric
• How to make minor fit adjustments to a pattern

ABOUT THEMSELVES:
• The importance of reading and following directions
• Their ability to complete a multi-step task

Materials Needed:
This lesson can be divided into two or three parts. One portion can be held in a local fabric store in which you can discuss choosing a pattern, understanding the pattern books, and selecting fabric and notions. This also may be done with pattern books or pattern envelopes in your home. The second part of the lesson occurs at the meeting when members bring their patterns and fabric for projects and they learn to make simple fit adjustments, layout the pattern, cut, and mark it or the layout, cutting and marking could be a third part. Use materials needed to complete. Some leader’s have used Nancy Zieman’s Let’s Sew book as an excellent resource for beginning sewing or see the North Dakota book “Stitch & Wear” in the resource section.
• Pattern book
• Pattern envelope or have members bring their pattern
• Copies of Member Handout and Activity Sheet
• Pencils

ACTIVITY TIME NEEDED: 60 TO 90 MINUTES EACH TIME

ACTIVITY:
When choosing a pattern, keep in mind that you’re in the process of learning. It’s better to make several easy items and get comfortable sewing than to become discouraged by selecting a pattern that’s much too difficult. Every pattern company offers projects designed just for beginners. These are the best choices for you. Look for patterns called “quick, simple, easy, or overnight.” Usually they have fewer details and clear directions. There are many choices, and you should have little trouble finding one you like. Be sure to take a close look, however, to see what skills are required that you have not practiced. If it contains only one or two new skills, you may be ready to try it. However, if it contains more than that, you should look for a different pattern with fewer new skills at this time.

Leader Notes
Welcome all members. Have them sit in a comfortable place where they can see a pattern book. Allow them to introduce themselves if they do not know each other. Ask them to tell a new skill they would like to try this year. You begin.

Be sure to stress selection of a sample pattern for one of their first projects.

137-Clothing & Textiles, Level II
The pattern catalog contains a wealth of information. Each company divides its catalog into different sections; each in a different manner. Usually the fashion trends are in the beginning section. This section shows the newest styles, fabrics, trims and finishes. Some sections are for special size ranges. Refer to “Design Basics” Level I for your body type. To find this, take your body measurements and compare to the chart in the back of the pattern book. The one closest to your measurements would be the best fitting pattern for you.

Turn to the back of the pattern book. Here we find information that will help us choose the best pattern and fabric for your project. Take a minute and look through the information.

On each page you will see information about each pattern. The details will be illustrated and you can use this to determine if you would want to sew this item. For beginning sewers, it is best to look for easy-sew garments that do not have as many seams, collars, set-in sleeves, closures, tucks, pleats, or other details that take more skill and time. There is also a back view to help in determining details. Read the notions listed to help determine the difficulty of the pattern.

Once you have made your pattern choice, study the pattern envelope. It is filled with a lot of information, and should serve as your shopping guide. It will tell you:
- What type of fabric to buy: knit or woven? one-way design or non-directional print? width?

Your pattern was a big help to you in selecting your fabric and sewing notions. Now it becomes your guide in making the garment. In this pattern envelope, you will find:
- Tissue pattern pieces from which you cut out your fabric.
- Pattern guide that tells you step-by-step how to sew your garment.

You need to be familiar with all the information in the pattern guide. All guides have information on how to get ready to sew and step-by-step instructions on how to sew the garment. Most patterns contain more than one garment or more than one way to make a garment. It is best to circle the pattern pieces you will use.

Pattern pieces will tell:
- Brand or company name.
- Pattern number, size, and type.
- Garment piece (back, front, sleeve, etc.).
- Piece number or letter.
- Cutting lines (solid; if various sizes, the lines will vary in pattern).
- Stitching lines (broken; or given in guide instructions).
- Lengthen or shorten lines (2 parallel lines for altering).
- Grainline (straight line with arrows).
• Foldlines (lines with curved arrows at the ends).
• Notches and dots for matching pieces correctly.
• Dart stitching lines (a combination of circles and broken lines).
• Circles, squares, and triangles for matching points on the inside or at the seamline.
• Closures, such as buttons, buttonholes, and zippers (sketched on your pattern piece).
• Lines marking center front and center back.

Selecting a pattern designed for your figure type will minimize the number of pattern adjustments and make garment fitting much easier. You should be primarily concerned with the pattern going around you, position of darts directed toward body bulge, and the length. Pin fitting your pattern can give you a general idea. To pin fit:
  • Pin darts in the pattern piece.
  • Pin on the stitching line, joining the front and back sections.
  • Carefully slip on over undergarments to see if it will reach from center front to center back; keep the side seam at your side.

Study and compare your body measurements with those on the pattern envelope. When differences are found (greater than \( \frac{1}{4} \) inch), some type of adjustment is needed. Mark on your chart those areas where adjustments are needed and whether you need to add to or subtract from your pattern.

To ensure accuracy in any alteration, be sure to follow these basic principles whenever you work with pattern pieces.
  • Pattern pieces should be flat and free from wrinkles. Press with a cool iron before making any changes.
  • All pattern pieces must be flat and remain flat when any alteration is done.
  • Pin-fit the pattern again to check adjustments.

Some simple pattern adjustments include dart changes, adding width, and lengthening or shortening a pattern piece. Here’s how:

**Darts**

Try on the pattern piece. The bust dart should point to the fullest part of your bust and end about 1 to 2 inches from it. If it doesn’t, rotate the dart as follows. Make a mark on the pattern at the fullest part of your bust. Put a point about 1 to 2 inches away from this first mark, toward the edge of the garment. Use a pencil and a ruler to redraw the dart from the new point to the original ends.

**Adding width at the side seams**

The new multi-size patterns do this for you and are your best choice if you need to add a bit of width on one garment section or another. But if the garment you want to make isn’t available in a multi-size version, use a ruler to draw new cutting and stitching lines.

Go easy on adding width. You must make the same adjustments on all the sections of the garment, so if you add \( \frac{1}{4} \) inch to each of four seam allow-
ances, you would be adding a full inch to the garment. Adding \( \frac{1}{4} \) inch to the fold will add \( \frac{1}{2} \) inch to the garment circumference.

**To lengthen or shorten**

If the pattern is slightly longer or shorter in one area than you are, you can add or subtract length to that area. Notice whether the pattern has a lengthening or shortening line or gauge printed right on it. Draw a line parallel to the shortening line exactly the distance away that you want to shorten. Fold along the shortening line and match it to the new line.

To lengthen, cut across the pattern and spread it out to lengthen it as necessary. Tape a piece of lightweight paper, such as tissue paper or wax paper between the cut edges. Do not use a newspaper as the ink will rub off. Use a ruler to redraw cutting lines.

To shorten the pattern, simply fold a tuck, being sure grain lines line up. Each pattern piece must have all alterations, and seam allowances must match. Use a ruler to redraw cutting lines.

Before we talk about marking, there are some fabrics that need extra care when you lay the pattern on the fabric. These fabrics are ones you will not want to choose for a beginning project, but you will want to use as you gain skill.

**Directional fabrics**

Directional fabrics have a “one-way” or “up and down” appearance because of the weave, design, or nap (way the fabric is brushed after woven). Garments made of one-way fabrics should be cut with the tops of all pieces pointing in the same direction. Napped and pile fabrics affect light reflection. The fabrics look lighter or darker in color depending on the direction in which they are placed. If the direction on all pieces does not go the same way, the garment will appear to be different shades in some areas than others.

Commercial pattern companies refer to all one-way fabrics as fabrics “with nap.” There may be different yardage requirements that are given on pattern envelopes. Be sure to check for this before you buy your fabric.

Before cutting, decide on the direction the pile will run. If it runs up, the color will be richer, but color change resulting from wear may be more obvious. Check the direction of the pile by running your hand over the fabric. It will feel smoother when you move in the direction of the nap.

Pin the pattern pieces to the wrong side of the fabric; it is easier to insert the pins in the backing. If the fabric is very thick, cut only one layer at a time. Notches are hard to cut in very thick fabric. If necessary, omit them and mark the wrong side of the fabric with tailor’s chalk. Facings can be cut from lighter-weight fabric that matches or blends in color and is of similar fiber content and care instructions.

Show a fabric with nap, such as corduroy, velvet, or a terry towel.
**Woven directional fabrics**

Avoid a fabric with twill weave. If you do select a twill, be sure to read the pattern back to determine if the pattern is suitable for twill (directional fabrics).

When cutting, cut the garment pieces so the diagonal lines in the fabric run in the same direction. Cut the sleeves so the diagonal lines in both run as on the garment front. Match the diagonal lines of the fabric at seamlines of the garment, if possible. Cut jacquards as you would cut directional prints.

**Plaids and stripes**

Plaids and stripes may also be directional depending on whether they are even or uneven design. In an even plaid design, you can pick any block and find the boxes or stripes on either side will match. The same is true of an even stripe design. An even design simplifies the problem of matching patterns at seams and along closings.

An uneven plaid or stripe design is more difficult to match. Not every plaid or stripe will have boxes or stripes that match on each side. Perfectly matching the design lines of these fabrics at seamlines and other areas of construction takes extra care and time for cutting and sewing. The end result of careful matching will be a more attractive garment.

Select a pattern that has as few construction lines as possible. The focus of the garment should be on the plaid or stripe of the fabric. Plaids and stripes cannot be matched unless the garment pieces are designed with an equal amount of slant on adjoining seamlines. Choose a pattern that permits precise matching. Read the pattern envelope for recommended fabrics.

To match plaids or stripes, you must buy more material than is necessary when fabric has a solid or all-over design. The amount needed depends upon the size of the plaid, if it is even or uneven, and if it is napped or not. To determine the exact amount, measure the plaid repeat and multiply by the number of yards called for. Usually half a yard extra is enough for an average-sized plaid and a full yard for a very large plaid. It is better to buy too much than to run short.

To match plaid or stripes, pin together the identical stripes in the upper and lower layers of the fabric. An uneven plaid or stripe should be cut with all the pattern pieces facing the same direction. Uneven plaids or stripes should be treated as one-way fabrics; all pieces must be laid out and cut pointing in the same direction. Check these pattern landmarks to be sure they match:

- Seamlines
- Center fronts and backs
- Notches
- Folds and darts
- Horizontal seams or edges
- Overlay pieces
- Pieces turned to the outside

Pass out copies of Member Handout, “Plaids.”

Keep in mind width and/or length adjustments you have made on your pattern.
Leader Notes

It may be necessary to slip baste to get a perfect match.

Marking certain stitching lines on your fabric makes your sewing easier. You want to mark darts, tucks, pleats, positions for buttons, pockets or trim, and other unusual lines or matching points. When doing a layout, fold fabric with right sides together when possible (it is easier to mark the wrong side) and it will be in position when stitching right sides together.

There are several methods for marking your fabric. The one you choose will depend on the fabric. Some methods may damage a fabric, some may push one layer of fabric over so you do not have the same marking on the two layers, or you may lose the marking before you have the garment assembled. Test your marking methods on a scrap and press to see what happens. You may use pins, tracing wheel and tracing paper, tailor’s tacks, fabric marking pens and pencils, press marking (pressing a temporary crease to mark the center), snips, chalk, or soap slivers. No one method is suitable for all fabrics. Tailor’s tacks are accurate but slow, and can be pulled out. They are good for any marks that need to be seen from the right side of the garment, such as center front, center back, and sleeve cap. Pins are fast but shake out easily—safety pins could be used to prevent this.

Always test chalk, tracing paper, and markers first on a scrap of fabric to be certain they can be removed or do not show on the right side.

DIALOGUE FOR CRITICAL THINKING:

Share:

Q. Explain how to shorten the length of a skirt.
A. Draw a line parallel to the length or shorten the line the amount you want to shorten the skirt. Fold the skirt along one of the lengthen or shorten lines and match it to the line that was drawn.

Q. Name three ways to mark a fabric with pattern guides.
A. Pins, tracing wheel and tracing paper, tailor’s tacks, fabric marking pens and pencils, press marking, snips, or soap slivers.

Q. Name five things that are found on every pattern piece.
A. • Brand or company name
   • Pattern number, size, and type
   • Garment piece (back, front, sleeve, etc.)
   • Cutting lines (solid; if various sizes are in one pattern, the lines will vary)
   • Stitching lines (broken; given in guide instructions)
   • Lengthen or shorten lines (2 parallel lines for altering)
   • Grainline (straight line with arrows)
   • Foldlines (lines with curved arrows at the ends)
   • Notches and dots for matching pieces correctly
   • Dart stitching lines (a combination of circles and broken lines)
   • Circles, squares, and triangles for matching points on the inside or at the seamline
• Closures such as buttons, buttonholes, and zippers (sketched on your pattern pieces)
• Lines marking center front and center back

Q. Where do you find the instructions for laying out the pattern on the fabric?
A. Pattern information guide.

Process:
Q. What was the most important thing you learned today from this lesson?

Q. What was the hardest to understand? What was the easiest? Why?

Q. Why is that important to you?

Generalize:
Q. What math concepts did you use in this lesson? Why is it important to be able to use these math skills?

Apply:
Q. What did you learn from this lesson that can be used with another project or activity?

GOING FURTHER:
• Make a copy of “Pattern Power” pieces from last page of the handout, white out the names, copy and have members use it as an activity sheet to identify pattern markings.
• Have members share with others how to do alterations and correctly read a pattern.
• Take members on a field trip to a pattern manufacturer, if possible.
• Have members collect and recycle old patterns for a club project. Or, use the patterns to practice the above alterations.
• Prepare an exhibit or poster on simple pattern alterations to display at a fabric store or school.
• Award a coupon for discounts on patterns or fabrics from a local fabric store, secured from a mailer or newspaper to the member(s) who cut(s) and mark(s) the pattern correctly.
• Help senior citizens lay out and cut patterns at the retirement center.
REFERENCE:

Start Sewing, Singer Education Department, 321 First Street, Elizabeth, New Jersey 07207

Sewing Your Clothes, Marjorie Mead, Extension Specialist, Cooperative Extension Service, University of Illinois at Urbana-Champaign, Champaign, Illinois

Clothing Leader Guide, Texas Agriculture Extension Service, Alma Fonseca and Ann Beard, Clothing and Textile Specialists, Texas A&M, College Station, Texas


The Busy Woman’s Fitting Book, Nancy Zieman, Menlo Park, California, Open Chain Publishing, 1989


Author:
Developed by a team including, Carla Dill, Extension Assistant; Lucinda Schoenberger, Clothing Specialist; Mary Don Peterson, Clothing Specialist; Artyce Hedrick, Clothing Specialist, Cooperative Extension Service, Kansas State University

Reviewed by:
Steve Fisher, Extension Specialist, 4-H Youth Programs, Cooperative Extension Service, Kansas State University; and members of the Family Living Curriculum Development Committee and Clothing & Textiles Design Team
How’s Your Pattern Power?

Look at your pattern. Can you find the following information? Check each item as you locate it.

<table>
<thead>
<tr>
<th>Pattern Envelope Front</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Front views of all garments</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pattern Envelope Back</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Back views of garments</td>
<td></td>
</tr>
<tr>
<td>Body measurement chart</td>
<td></td>
</tr>
<tr>
<td>List of suggested fabrics</td>
<td></td>
</tr>
<tr>
<td>List of notions needed for your pattern</td>
<td></td>
</tr>
<tr>
<td>Yardage chart—How much fabric do you need for the view you are making?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Guide Sheet</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Front and back views</td>
<td></td>
</tr>
<tr>
<td>Illustrations of pattern pieces</td>
<td></td>
</tr>
<tr>
<td>Explanations of symbols and terms</td>
<td></td>
</tr>
<tr>
<td>General sewing information</td>
<td></td>
</tr>
<tr>
<td>Pattern layouts—Circle the layout you will use for your project</td>
<td></td>
</tr>
<tr>
<td>Step by step instructions (sewing directions)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pattern Symbols</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cutting line</td>
<td></td>
</tr>
<tr>
<td>Stitching line</td>
<td></td>
</tr>
<tr>
<td>Grainline arrow</td>
<td></td>
</tr>
<tr>
<td>“Place on fold” line</td>
<td></td>
</tr>
<tr>
<td>Notches</td>
<td></td>
</tr>
<tr>
<td>Circles or squares</td>
<td></td>
</tr>
<tr>
<td>Lengthen or shorten line</td>
<td></td>
</tr>
<tr>
<td>Center front or back</td>
<td></td>
</tr>
</tbody>
</table>
Altering the Pattern

**To shorten the pattern:**
Measure from the lengthen and shorten line the amount you want to shorten the pattern. Draw a line at that point.

Fold the pattern on the lengthen and shorten line.
Bring the folded edge to the marked line. Tape it in place.

**To lengthen a pattern:**
Cut across the pattern on the printed alteration line if it is there, or draw a line across the pattern and then cut. (figure 1)

Place a piece of paper under the pattern and tape it to one of the cut pattern edges.
Measure the amount you want to lengthen the pattern. Draw a line along the added paper. (figure 2)

Place the second part of the pattern piece along the marked line, lining edges as close as possible with above pattern piece. Tape it in place. Using a ruler, match and draw in cutting lines. (figure 3)
Raising bust darts:
To raise bust darts slightly, mark the location of the new dart point above the original. Draw new dart stitching lines to new point, tapering them into the original stitching lines.

An alternative method, especially useful when an entire dart must be raised by a large amount, is to cut an “L” below and beside the dart, as shown at right. Take a tuck above the dart deep enough to raise it to the desired location.

Lowering bust darts:
To lower bust darts slightly, mark the location of the new dart point below the original. Draw new dart stitching lines to new point, tapering them into the original stitching lines.

An alternative method, especially useful when the entire dart must be lowered by a large amount, is to cut an “L” above and beside the dart, as shown at right. Take a tuck below the dart deep enough to lower it to the desired place.
Plaids

An even plaid matches both lengthwise and crosswise when folded through the center of a repeat. An even square plaid, left, also forms a mirror image if folded diagonally through the center of one design. An even rectangular plaid, shown below, is even, but not identical, both lengthwise and crosswise.

An uneven plaid may mismatch in one or both directions. When plaid is uneven lengthwise, left, a repeat folded in half crosswise matches; folded lengthwise it does not. With plaid that is uneven crosswise, below, repeat forms a mirror image when folded in half lengthwise; does not when folded crosswise. Plaid that is uneven in both directions does not match folded either way—lengthwise or crosswise.

With fabric folded: Identical intersecting bars of the repeats should be pinned through both fabric layers, every few inches. This technique minimizes the risk of slippage and consequent mismatching.

With a single layer, cutting is more accurate than with folded fabric but it takes more time. With fabric right side up, pin and cut each pattern piece once. To cut second piece, remove pattern and lay garment section right side down against remaining fabric; match bars lengthwise and crosswise; pin. For pattern piece to be cut on a fold, use method for folded plaid.
Pattern Power

Patterns are like “road maps” for your projects. A pattern helps you turn a piece of fabric into a great finished project.

Before choosing a pattern, think about what you would like to sew. Would you like to make a simple top, or a pair of shorts or pants? Or do you want to sew a pillow, a tote bag, or some other kind of project? The choice is yours!

Next, look for a pattern you like in a pattern catalog. Pattern catalogs are divided into separate sections for different types of projects. Flip to the section that includes the kind of project you want. The patterns shown in this book are merely examples. If you cannot find these specific patterns in a current catalog, look for similar styles.

For your first project, choose a simple pattern. Easy patterns have few pattern pieces and simple sewing steps. Most pattern books include special sections with patterns which are easy for beginners. Some also label patterns for beginners as “easy to sew” or “learn to sew.”

Let’s take a look at how a pattern helps you sew.

Selecting the Correct Pattern Size

Ask someone to help you take your body measurements so you can choose the correct pattern size. The measurements you will need are:

1. Bustline or chest
2. Waist
3. Hip
4. Height
5. Back waist length—measure from neck to waist

Record your measurements in the chart below. Use this information to help you determine your pattern size.

<table>
<thead>
<tr>
<th>My Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bust/chest</td>
</tr>
<tr>
<td>Waist</td>
</tr>
<tr>
<td>Hip</td>
</tr>
<tr>
<td>Height</td>
</tr>
<tr>
<td>Back waist length</td>
</tr>
</tbody>
</table>

Compare your measurements to those in the size charts in the back of the pattern catalog. Choose the pattern type and size closest to your measurements. The following charts are examples of several pattern types.

If your measurements don’t exactly match those listed, use the chest or bust measurement for tops, dresses, or jackets. Use hip and waist measurements for pants or skirts.
Pattern Power, continued

Girls’
Girls’ patterns are designed for the girl who has not yet begun to mature.

<table>
<thead>
<tr>
<th>Size</th>
<th>S</th>
<th>M</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bust</td>
<td>26</td>
<td>27</td>
<td>30</td>
</tr>
<tr>
<td>Waist</td>
<td>23</td>
<td>23½</td>
<td>25½</td>
</tr>
<tr>
<td>Hip</td>
<td>27</td>
<td>30</td>
<td>32</td>
</tr>
<tr>
<td>Back Waist Length</td>
<td>11½</td>
<td>12</td>
<td>13½</td>
</tr>
<tr>
<td>Approx. Heights</td>
<td>50</td>
<td>52</td>
<td>58½</td>
</tr>
</tbody>
</table>

Young Junior/Teen
This size range is designed for the developing preteen and teen figures, about 5’1 to 5’3 inches without shoes.

<table>
<thead>
<tr>
<th>Size</th>
<th>5/6</th>
<th>7/8</th>
<th>9/10</th>
<th>11/12</th>
<th>13/14</th>
<th>15/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bust</td>
<td>28</td>
<td>29</td>
<td>30½</td>
<td>32</td>
<td>33½</td>
<td>35</td>
</tr>
<tr>
<td>Waist</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
</tr>
<tr>
<td>Hip</td>
<td>31</td>
<td>32</td>
<td>33½</td>
<td>35</td>
<td>36½</td>
<td>38</td>
</tr>
<tr>
<td>Back Waist Length</td>
<td>13½</td>
<td>14</td>
<td>15</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Boys’/Teen Boys’
These patterns are for boys who have not yet finished growing or attained full height.

<table>
<thead>
<tr>
<th>Size</th>
<th>7</th>
<th>8</th>
<th>10</th>
<th>12</th>
<th>14</th>
<th>16</th>
<th>18</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chest</td>
<td>26</td>
<td>27</td>
<td>28</td>
<td>30</td>
<td>32</td>
<td>33½</td>
<td>35</td>
</tr>
<tr>
<td>Waist</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
</tr>
<tr>
<td>Hip</td>
<td>27</td>
<td>28</td>
<td>29½</td>
<td>31</td>
<td>32½</td>
<td>34</td>
<td>35½</td>
</tr>
<tr>
<td>Neckband</td>
<td>11½</td>
<td>12</td>
<td>12½</td>
<td>13</td>
<td>13½</td>
<td>14</td>
<td>14½</td>
</tr>
<tr>
<td>Height</td>
<td>48</td>
<td>50</td>
<td>54</td>
<td>58</td>
<td>61</td>
<td>64</td>
<td>66</td>
</tr>
<tr>
<td>Sleeve</td>
<td>22½</td>
<td>23¼</td>
<td>25</td>
<td>26½</td>
<td>29</td>
<td>30</td>
<td>31</td>
</tr>
</tbody>
</table>

Misses’
Misses’ patterns are designed for a well proportioned and developed figure about 5’5 to 5’6 inches without shoes.

<table>
<thead>
<tr>
<th>Size</th>
<th>XS</th>
<th>S</th>
<th>M</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bust</td>
<td>30½</td>
<td>31½</td>
<td>32½</td>
<td>34</td>
</tr>
<tr>
<td>Waist</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>28</td>
</tr>
<tr>
<td>Hip</td>
<td>32½</td>
<td>33½</td>
<td>34½</td>
<td>38</td>
</tr>
<tr>
<td>Back Waist Length</td>
<td>15½</td>
<td>15¼</td>
<td>16</td>
<td>16½</td>
</tr>
</tbody>
</table>

150-Clothing & Textiles, Level II
Pattern Power, continued

Understanding Patterns
There is SO MUCH information in a pattern! Refer to your pattern as you learn about what is included on the pattern envelope, its guide sheet, and individual pattern pieces.

Information on the Pattern Envelope
Study your pattern envelope. The front of the envelope shows all the possible variations of the pattern. These are called “views.” The views are either marked by numbers or letters.

The back of the envelope includes additional information:
1. Back views of the garments.
2. A chart of body measurements.
3. A list of suggested fabrics.
4. A list of notions needed to make your project. Notions are things like buttons, zippers, elastic, thread, snaps, and hooks and eyes.
5. A yardage chart for each pattern view. To determine the amount of fabric needed:
   • Find the view you are making on the left side of the chart.
   • Find the line under that view which lists the width of your fabric.
   • Find your pattern size at the top of the chart.
   • Follow the pattern size column down until it meets the fabric width line. This is the amount of fabric you need if no adjustment in pattern length or width has been made.

Information on the Pattern Guide Sheet
Think of the guide sheet as your instruction book. It includes:
• Illustrations of all pattern pieces for the different pattern views.
• Pattern markings—an explanation of symbols and terms used in the pattern.
• General information about interfacing, adjusting the pattern, cutting and marking, and sewing which will help you complete the project.
• Cutting layouts—these illustrations show how to place the pattern pieces on the fabric before you cut them out.
• Step-by-step instructions and illustrations showing how to make the project from start to finish.
Symbols on Pattern Pieces
Symbols on a pattern are sewing and cutting “landmarks,” similar to those found on a road map.

1. Cutting line—a solid, dark outer line. A scissors is sometimes printed on this line to let you know this is where you should cut.
2. Stitching line—a dotted line inside the cutting line. This is the line on which seams will be stitched.
3. Grainline arrow—a straight line with an arrow at each end. It is used to position the pattern on the fabric. This arrow must be parallel to the fabric selvage or length-wise grainline.
4. Place on fold line—a narrower line than the cutting line which tells you to put that line on a fold of the fabric. “Place on fold” is usually printed along the line. Sometimes a second parallel line with double ended arrows points to the foldline.
5. Notches—single, double, or triple diamonds which help you match garment pieces accurately.
6. Circles and squares—marks which help you match garment pieces. Sometimes they show where you should start or stop stitching.
7. Lengthen and shorten lines—one or more lines which show where you can add or subtract length to make the pattern longer or shorter.
8. Hemline, center front and back, and foldline—show position and/or suggested sizes of special construction details.
Interfacings

Clothing & Textiles, Level II, Creating with Fabrics and Fibers

What Members Will Learn . . .

ABOUT THE PROJECT:
- How to identify types of interfacing properties
- Where interfacing is used
- Why interfacing is used
- How to apply interfacing

ABOUT THEMSELVES:
- Experimenting is a good way to test for desired results
- Confidence in sewing projects by mastering a new skill

Materials Needed:
- Various samples of fabric cut into 8 × 8-inch squares
- Various samples of different weight and types of interfacings, cut into 4 × 8-inch rectangles
- Steam iron
- Ironing board
- Press cloth
- Needle and thread
- Copies of Member Handout

ACTIVITY TIME NEEDED: 45 MINUTES

ACTIVITY:

Interfacing is an extra layer of fabric that provides shape and support in detail areas of a garment. Interfacing is frequently used in collars, cuffs, lapels, necklines, pockets, waistbands, and opening edges.

The two basic types of interfacings are sew-in and fusible, also called iron-on. Both are available in woven, knitted, and nonwoven versions, and in a variety of weights, ranging from heavy to sheer weight. In addition to these specially developed interfacing fabrics, self-fabric, batiste, organza, and organdy can be used as interfacings on sheer to lightweight fabrics. The rule of thumb is that the interfacing adds the amount of body needed for a selected end use. To test the body, fold the fashion fabric around the interfacing and check the feel. For iron-on interfacing, find the one that feels right and then go two steps lighter. Always iron a sample of your fabric to check the feel before you use fusible interfacing.

Choose an interfacing that can be cared for in the same manner as the outer fabric. Prewash washable interfacings by hand (even if they are labeled preshrunk). Line dry iron-on interfacing. Line dry or tumble dry sew-in interfacing. Warning: Iron-on interfacing cannot be dried in the

Leader Notes

Welcome members and have them sit in a comfortable place. If they do not know each other, have them introduce themselves. Ask them to tell one thing that is used to support another thing. (Wood in houses, cement in bridges, people support others, etc.) You begin with an example.

Beginning skill members may not be familiar with interfacings. You may want to show them examples of batiste, organza and organdy.
dryer because the heat of the dryer causes it to fuse together. Interfacings are available in several types and weights. Sew-in interfacing must be basted in place, either by hand or machine, and fusibles are applied with an iron using heat, pressure, and steam.

Your pattern will usually tell you to interface all the appropriate places for that style; sometimes you may even add extra. Always follow the manufacturer’s instructions when applying fusible interfacing, and make a test sample before applying fusibles to the garment fabric to check compatibility. A properly fused garment is smooth and unpuckered; interfacing should be invisible from the right side; garment edges should be unstretched; and the interfacing should not significantly change the hand (how the fabric feels) and color of the fabric.

Precut and perforated fusible interfacings are available in different weights and widths for waistbands, cuffs, facings and plackets. These can save you time but may cost more than by-the-yard interfacings. Look for these on sale and stock up. Keep extra on hand, but be sure to keep a copy of the instructions with the interfacing.

Choosing between a fusible or a sew-in interfacing is usually a matter of personal preference. In general, fusibles provide slightly crisper results. This is because the fusibles “set” the yarns, they’re an excellent choice for fabrics that fray. Some fabrics that don’t work well with fusibles include metallics, sequinned, beaded, re-embroidered fabrics, rayon and acetate velvets, most brocades, fake furs, leather, vinyl, and openwork fabrics.

Most people prefer the fusible because it is quicker than the sew-in type. The trick to good results is to follow the manufacturer’s directions exactly. Fuse it twice—once on the right side, cool, then once on the wrong side of the fabric. This will help you get the best results.

The pattern tells you where you must interface the garment to achieve the desired look. You may desire more crispness in another area. If you do, you can add interfacing there. This may call for a lighter weight or heavier weight interfacing than you are using somewhere else in the garment. This is fine—use the one that gives you the hand you desire. Be sure to test the sample on a scrap of the fabric. This will help you avoid a costly mistake.

Woven and knitted interfacings have lengthwise, crosswise, and bias grains. The interfacing pieces should be cut out so the pieces are on-grain as indicated in the pattern layouts.

Nonwoven interfacings do not have a grain. This doesn’t mean that you can cut out your pieces any way. Some of these are stable in all directions, others stretch in the crosswise direction, and others are all-bias. Read the instructions that come with the interfacing and follow manufacturer recommendations for how to place the pattern pieces.
Transfer the pattern markings to the interfacing sections, rather than to the fabric. Buttonhole markings are the exception to this rule. They must be on the outside of the garment.

Tips for Application:
- **Sew-in type:** Trim the outside corner of the interfacing diagonally, just inside the point where the seamlines meet. Then pin or glue-baste (with water-soluble glue) the interfacing to the wrong side of the garment section and machine-baste ½ inch from the edges. Trim the interfacing seam allowances close to the stitching and trim off any hem allowance.

- **Fusible type:** Trim the corners diagonally, the same as for sew-in interfacings, and trim off any hem allowances. Trim ½ inch off of the seam allowances to reduce bulk for the heaviest of fabrics. Follow the directions for applying the interfacing exactly.

Some of the specialty interfacings have been developed for special areas, such as waistbands, collars, cuffs and plackets. They come in standard widths. Some of these are very easy to use because they’re perforated to indicate seamline and foldlines. You can read the directions to learn how to cut from your fashion fabric for use on your garment.

**TIP:** If you are worried that a fusible interfacing may show on the right side of a garment where it is applied in an area not next to a seam, you should check for a ridge on a sample swatch. To help hide such a ridge on your garment, try pinning the outer edge of the interfacing with pinking shears before fusing to soften the outside ridge. If this doesn’t work, apply the interfacing to a facing rather than the garment.

**DIALOGUE FOR CRITICAL THINKING:**
**Share:**
Q. How do you apply interfacings?
A. Sew-in and fusible.

Q. Where are the proper places for interfacings?
A. Anywhere you want more crispness in a garment or a place that needs extra reinforcement.

Q. What does “hand” mean?
A. The feel and the drape of the fabric.

**Process:**
Q. Name some common areas in which you will find interfacings.
A. Collars, cuffs, waistbands, lapels, buttonholes, plackets, sleeve caps.

Q. How do you apply a fusible interfacing?
A. Follow the manufacturer’s directions exactly. Some combination of heat, pressure, time and perhaps steam.

**Leader Notes**

Allow members to experiment with the fusible interfacings on various fabrics. Check for the feel of the fabric after the fusible has been added. Press a fusible using the wrong directions and see what happens. Have each member stitch in a sample sew-in fusible. Compare to the fused samples, and talk about the “boardy” look of too stiff interfacing. You may want to allow members to try another fusing product like “Wonder Under” or “Heat ‘N Bond” and try making an applique or fuse trim onto samples. This is an important study in the use of interfacing. If you need to buy supplies, divide the cost among members. This lesson will save them money in the long run.

If you use any of these products show the members how they are used. Distribute the “Recommended Interfacing for Fabric Types” handout.
Generalize:
Q. You are making a garment out of a lightweight silk fabric and need to interface the collar, but find out that the fusible interfacing you have selected changes the color of the outside fabric after it is fused because the resin shows through. What can you do?
A. Fuse the interfacing to the undercollar or use a sew-in interfacing (self fabric is even a possibility as interfacing).

Q. Describe other 4-H projects or situations at home or school when it is helpful to experiment to make the right choice.

Apply:
Q. Would you use the same type of interfacing if you made another garment of the same fabric? Why or why not?
A. Answers will vary.

GOING FURTHER:
• Visit a fabric store looking for all the various types of interfacings that are available. Determine a project and fabric that would be suitable for each type.
• Have members bring a T-shirt and some fabric to cut out a portion to make an applique. Do this at the next lesson.
• Compare the cost of the various types of interfacings, precut and packaged, to the yardage type.
• Have members create a presentation about how to use interfacings and quick tips for each. Present this to the club or other community group.
• Make a poster or exhibit of as many different types and weights of sew-in and fusible interfacings as are available. Do it on different weights of fabric. Explain the differences and how they are used.
• Make a poster on how to preshrink and fuse fusible interfacing that could be displayed in a fabric department or at the fair.
REFERENCES:
Clothing Leader Guide, Texas Agriculture Extension Service, Alma Fonseca and Ann Beard, Clothing and Textile Specialists, Texas A&M, College Station, Texas
Simply The Best Sewing Book Simplicity Pattern Co., 200 Madison Avenue, New York, New York 10016

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Reviewed by:
Steve Fisher, Extension Specialist, 4-H Youth Programs, Cooperative Extension Service, Kansas State University; and members of the Family Living Curriculum Development Committee and Clothing & Textiles Design Team
### Recommended Interfacing for Fabric Types

**TIP** Sometimes one edge of the interfacing does not extend all the way to a seamline, for example, on a collarless neckline or on the front of a jacket. With a fusible interfacing, a ridge may be visible on the outside of the garment. To find out, test-fuse a piece of the interfacing to a scrap of the fashion fabric. If a ridge forms, try cutting the edge of the interfacing with pinking shears. If this doesn’t help, apply the interfacing to the facing rather than to the body of the garment.

#### Fabric and Use

<table>
<thead>
<tr>
<th>Fabric and Use</th>
<th>Interfacing</th>
<th>For a soft effect</th>
<th>For a crisp effect</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Very light to lightweight fabrics</strong></td>
<td></td>
<td>Batiste; organza; sew-in sheer, regular, or stretch very light-weight nonwoven; self fabric</td>
<td>Organdy; sew-in or fusible lightweight or sheer (non-woven or woven); fusible knit</td>
</tr>
<tr>
<td>(voile, gauze, crepe, challis, calico, chambray, interlock knit, jersey, single knit, batiste)</td>
<td>Do not use fusibles on chiffon or seersucker</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Medium weight fabrics</strong></td>
<td>Sew-in or fusible medium weight woven; regular or stretch light to medium weight nonwoven; fusible knit</td>
<td>Do not use fusibles on rainwear fabrics</td>
<td>Sew-in or fusible lightweight hair canvas; sew-in or fusible medium weight (woven or nonwoven)</td>
</tr>
<tr>
<td>(linen, denim, poplin, flannel, garbardine, satin, duck, chino, velour, stretch terry, double knit, sweater knit)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dresses, lightweight suits, active sportswear</td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Heavyweight fabrics</strong></td>
<td>Soft, lightweight canvas; sew-in or fusible medium weight nonwoven</td>
<td></td>
<td>Sew-in or fusible medium weight woven; crisp medium or heavyweight hair canvas; fusible heavyweight nonwoven</td>
</tr>
<tr>
<td>(corduroy, worsted, camel hair, melton, tweed, sailcloth, canvas, gabardine, coatings)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jackets, suits, coats</td>
<td>Crisp or soft canvas; fusible or sew-in medium weight nonwoven or woven</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Leather types</strong></td>
<td></td>
<td>Fusible nonwoven precut strips; woven stiffener sold by the width; sew-in or fusible medium to heavyweight (woven or nonwoven) Waistbands interfacing will be crisp and stabilize the fabric.</td>
<td></td>
</tr>
<tr>
<td>(suede, suede cloth)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Waistbands</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Crafts</strong></td>
<td>Sew-in nonwovens in all weights</td>
<td>fusible medium to heavy-weight</td>
<td></td>
</tr>
<tr>
<td>(belts, hats, bags, camping gear, home decorating items)</td>
<td></td>
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</table>
Sewing for Others

What Members Will Learn . . .

ABOUT THE PROJECT:
- Ways to contribute to the community using their sewing ability
- Steps of a recycling project
- Advanced hand stitches

ABOUT THEMSELVES:
- How it feels to contribute to the good of others in their community
- Confidence in planning and completing a task
- The importance of teamwork to the community
- Pride in their talents to help others
- How recycling can affect their lives

Materials Needed:
- Samples of fabric, thread, and needles for each member to practice stitches
- Old sweaters that are not used anymore (source: shrunken sweaters from a thrift store). Avoid loosely woven sweaters. Have the club or project members collect these for this project. These will be made into mittens and hats
- See additional list of the tools needed in the sweater recycling activity instructions
- Yarn that compliments the sweaters that will be remade (pompon for hat top)
- A second project of your choice. Ideas include: rags from old clothes, hospital gowns, busy books for hospital or doctor’s waiting rooms, lap robes/comforters, tote bags, stuffed toys, etc.
- Copies of Activity Sheets and Member Handouts

ACTIVITY TIME NEEDED: DUE TO NUMBER OF ACTIVITIES IN THIS LESSON, IT MAY BE NECESSARY TO TAKE TWO SESSIONS TO COMPLETE

ACTIVITY:

Have you ever sewn for others? Has someone else ever sewn for you? Why might you sew for others? (save money, more personal, share something they have admired, to earn money, to give someone something unique, etc.)

There are many good reasons to give home-sewn gifts. Some of the reasons were stated above. Everyone likes to get gifts that are special to them. Sometimes, these gifts are special because they are nicer or more...
expensive than we could make or purchase on our own. Sometimes, they are special because they mean the person giving the gift is thinking of us. Sometimes, it is because the gift is a surprise and we are not expecting it. All of these reasons make a gift special. Today we are going to talk about giving to others, and we are going to use some of our sewing talent to create a gift for someone else. You may be surprised how much you can give when you combine your thoughtfulness and your sewing ability without much expense.

Since we are members of many different groups, what we do and how we act affects many other people. In our families, we can choose to help with some of the workload, and thus our family runs more smoothly than if we ignore our share. If you play in sports, think about the team of which you are a part. If you choose to participate only a fraction of your ability, your team will not perform as well as when all members are playing at 100 percent. So it is when we are members of a community. As members of a community, we can make a difference for others when we share our talents and abilities with others.

Today, we are going to recycle unused sweaters into usable hats and mittens and donate them to persons that may be in need of these items. By recycling these unused sweaters we are saving landfill space and helping others in our community. We also get to practice our sewing skills.

There is no limit to the number of projects you can do for others. From garment construction to simple tearing of clothing into rags—you and your skill can be the greatest gift you give someone else.

Before making your gift, we are going to briefly introduce you to some more complex hand-sewing skills. These are used in many ways and you may find that by knowing more of these stitches you will be able to polish the look of other projects. Cut the thread in lengths no longer than 18 inches to avoid tangles. Draw the thread through beeswax. This will make the thread stronger and less likely to tangle.

**Vertical Hemming Stitch.** Use this stitch if the hem allowance is finished with seam binding. Begin at a seam, fastening the thread in the seam allowance. Take a tiny stitch through the garment, picking up a single thread. Insert the needle between the seam binding and the garment and bring it out through the seam binding, about ¼ inch to the left of the first stitch. Take another stitch in the garment, ¼ inch to the left of the second stitch. Continue, alternating from seam binding to garment, and taking several stitches on the needle before drawing the thread through the fabric.

**Catchstitch.** This stitch has some built-in stretch which makes it an especially good choice for hemming knits and for holding edges, such as facings, in place. Fasten the thread to the wrong side of the hem or facing. Work from left to right, with the needle pointing to the left. Take a tiny stitch in the garment ¼ inch to the right, close to the hem or facing edge.
Take the next stitch ¼ inch to the right in the hem or facing so that the stitches form an “X.” Continue, alternating from garment to hem or facing, keeping the stitches fairly loose.

**Blindstitch.** This stitch is useful for hemming knits and bulky fabrics. It will help prevent a ridge from forming at the hemline on the outside of the garment. Fold the hem slightly below the hem edge and hold it with your thumb. Fasten the thread in the folded edge of the hem and working from right to left, take a tiny stitch about ¼ inch to the left in the garment. Take the next stitch ¼ inch away in the folded hem edge. Continue, alternating from garment to hem and keeping the stitches evenly spaced.

**Prickstitch.** This stitch, also called a half-backstitch, is a good one to know if you are inserting a zipper in a fragile or hard-to-handle fabric, such as those used in bridal or evening wear. Use it in place of the final topstitching. To assure a straight line of prickstitches, add a row of hand basting stitches as a guideline. Starting from the bottom of the zipper, fasten the thread on the underside of the zipper and bring the needle up through the zipper tape and the garment layers. Insert the needle back down through all the layers, a thread or two behind the point where it first emerged. Bring the needle up again about ¼ inch ahead of the first stitch. Continue along the length of the zipper.

**Tacking.** This stitch helps keep facings in place at the seams. Holding the edge of the facing and the seam allowance together, take three or four short stitches in one place through both layers. Do not sew through the garment fabric. Repeat on the other seam allowance. NOTE: This same stitch can be used for permanently attaching snaps or hooks and eyes.

- Stitch-in-the-ditch technique is the quick machine alternative to hand tacking a facing in place. (See page 43 in “Let’s Sew” by Nancy Zieman.)

**DIALOGUE FOR CRITICAL THINKING:**

**Share:**

Q. When is a blindstitch appropriate?
A. To hem knits and bulky fabrics.

Q. What is a quick way to tack facings?
A. Stitch-in-the-ditch.

Q. What hand stitch would you use to insert a zipper in a fragile or hard-to-handle fabric?
A. Prickstitch.

**Process:**

Q. What was the hardest stitch for you? The easiest? Why?

**Generalize:**

Q. How did you feel about making something for someone with a special need? Why do you think you feel this way?
A. Answers will vary.

All of these instructions are for people who are right-handed, and would need to be reversed for people who are left-handed.

At this time have members choose a sweater. Have them assemble their supplies of ruler or tape measure, scissors, pins, darning needles, and yarn in matching color. Begin the project by following steps in the handout. You may want to station different members to different jobs and do this project in an assembly line fashion. Members may not get as much satisfaction from only doing a part, however.
Leader Notes

Q. What are some other community service projects someone could do?
A. Answers will vary, i.e., healthcare kits, school bags, laundry bags for nursing home residents.

Apply:
Q. What are examples of teamwork done in our community?
A. Examples—road work; blood drives; chamber of commerce events, etc.

Q. What landfill problems do we have in our community? How can we change our habits to reduce landfill problems?

GOING FURTHER:
• Have members volunteer to complete another community service project of their choice.
• Have members design an illustrated poster that shows the type of hand stitches, when they are appropriate, and how to do them. This can be put on display at a local fabric store.
• Host a repair clinic for the community where members donate time to repair other’s articles.
• Choose a project for the members to make for someone special, to give as a gift.

REFERENCES:
Clothing Connections, Jacqueline Davis-Manigaulte and Jean McLean and Greta Atkin, New York State College of Human Ecology, Cornell University, Ithaca, New York 14853
Simply The Best Sewing Book, Simplicity Pattern Co., 200 Madison Avenue, New York, New York 10016
Clothing Encounters, Mary Beth R. Salisbury, C.H.C., Osceola County Extension Agent, Home Economics, University of Florida, July 1991

Author:
Developed by a team including, Carla Dill, Extension Assistant; Lucinda Schoenberger, Clothing Specialist; Mary Don Peterson, Clothing Specialist; Artyce Hedrick, Clothing Specialist, Cooperative Extension Service, Kansas State University

Reviewed by:
Steve Fisher, Extension Specialist, 4-H Youth Programs, Cooperative Extension Service, Kansas State University; and members of the Family Living Curriculum Development Committee and Clothing & Textiles Design Team
Glossary of Hand Stitches

Vertical hemming stitch. A durable and stable stitch best suited for hems whose edges are finished with wovenedge or stretch-lace seam tape. Very little thread is exposed, reducing the risk of fraying and breaking.

Fasten thread from wrong side of hem and bring needle and thread through hem edge. Directly opposite this point and beside the hem edge, begin first and each succeeding stitch by catching only one yarn of garment fabric. Then, direct the needle down diagonally to go through the hem edge approximately ¼ to ⅜ inch to the left. Short, vertical floats will appear between the stitches.

Catch stitch. Particularly well suited to a stitched-and-pinked hem edge. Take special note of the direction for working and of the position of the needle. Notice too, that with each stitch, the thread crosses over itself.

Fasten thread from wrong side of hem and bring needle and thread through hem edge. Take a very small stitch in the garment fabric directly above the hem edge and approximately ¼ to ⅜ inch to the right. Take the next stitch ⅛ to ⅜ to the right in the hem. Continue to alternate stitches, spacing them evenly. Take special care to keep the stitches small when catching the garment fabric.
SEWING FOR OTHERS
CLOTHING & TEXTILES, LEVEL II, CREATING WITH FABRICS AND FIBERS
Member Handout

Glossary of Hand Stitches, continued

**Blind Hemming Stitch.** These stitches are taken inside, between the hem and the garment. In the finished hem, no stitches are visible and the edge of the hem does not press into the garment. Blind-hemming stitch is a quick and easy stitch that can be used on any blind hem.

Blind-hemming stitch: Work from right to left with needle pointing left. Fold back the hem edge; fasten thread inside it. Take a very small stitch approximately ¼ inch to the left in the garment; take the next stitch ½ inch to the left in the hem. Continue to alternate stitches from garment to hem, spacing them approximately ¼ inch apart. Take care to keep stitches small, especially those taken on garment.

**Prickstitch.** A more decorative backstitch than the even or the half-backstitch. Seen from the top side, the stitches are very short, with long spaces between them. This stitch is mainly used to hand-pick a zipper.

Prickstitch is similar to the half-backstitch except that the needle is inserted through all fabric layers just a few fabric threads behind and then brought up approximately ⅛ to ¼ inch in front of the point where thread emerges. Finished stitches on the top side are very short, with ⅛ to ¼ inch space between them.

**Tacking.** Stitches to keep facing in place at seams.

With facing and garment seamlines aligned at shoulders, tack facing in place. Use either several closely spaced whipstitches (1) or a cross-stitch tack (2), catching only facing edge and seam allowances of garment.
SEWING FOR OTHERS
CLOTHING & TEXTILES, LEVEL II, CREATING WITH FABRICS AND FIBERS
Activity Sheet

Tennis Racquet Cover

Materials Needed:
½ yard sturdy 45-inch fabric (cotton duck, denim, vinyl)
1¼ yard trim (1 inch wide)
12 inch conventional zipper
1 package fold-over braid
Thread to match

Trace around racquet head and add 1½ inches for depth and seam allowance.
Use ¼-inch seams throughout.

1. Pin trim to zipper (A) mitering bottom edge along fold line to form square. Stitch trim to zipper (B).

2. Mark center line on front of racquet cover the length of zipper plus 1 inch. Reinforce by stitching ¼ inch around zipper opening line.

3. Slash along marking between rows of stitching to within ½ inch of lower edge. Clip diagonally to corners. Press slashed edges to right side of fabric along stitching line (C).

4. Top-stitch trimmed zipper to racquet cover. On inside of cover, slipstitch edges to zipper tape.

5. With wrong sides together, stitch racquet cover front to racquet cover back.

6. Apply fold-over braid to raw edges of racquet cover, turning under raw edges at neck (D).
**Bandan-A-Rama**

Make a bandana necklace or hatband to create an inexpensive accessory or change the look of an outfit or hat.

Materials Needed:
Bandana or 18 inch square of fabric
Sharp shears
Sewing Machine with matching thread

1. Fold the bandana or fabric square as illustrated. (figure A)

2. Sew down the middle of the folded bandana. Remember to backstitch (stitching two or three stitches back and forth on top of each other, to secure stitching at beginning and end of seams) at the beginning and the end of the bandana. (figure B)

3. Cut along the two long folded edges. Then, make cuts along both edges of the bandana from outer edge to stitching line, approximately 3/8 inch apart. Continue cutting along the entire length of the bandana. Be careful not to cut through the stitching. (figure C)

If you would like your hatband/necklace to fluff up, put it through the washer and dryer.
SEWING FOR OTHERS
CLOTHING & TEXTILES, LEVEL II, CREATING WITH FABRICS AND FIBERS
Activity Sheet

Packable Lingerie Cases

Materials Needed:
Case A, B, C—½ yard each of three different 36-inch color coordinated fabrics (18 × 36 inches)
Case D—¾ yard of 36-inch color coordinated fabric (27 × 36 inches)
3 conventional zippers: 2, 10-inch and 1, 16-inch to match fabric
1 invisible zipper: 14-inch
Thread to match
1 yard decorative trim or ribbon, 2 inches wide
Cut two pieces of fabric for each case according to measurement. Cut the front of each case 1½ inches wider than back to provide seam allowance for zipper application.

Case A, B, & C:
1. Cut front pieces in half lengthwise and apply zippers according to package directions. Use centered application in Case A, lapped application in Case B, and invisible application in Case C.
2. Open zipper. With right sides together, stitch case front to case back.
3. Trim seams and corners. Turn cases to right side. Press.

Case D:
1. Stitch trim to each side of zipper (figure D1).
2. Cut front of case in half lengthwise. Turn raw edges to outside of fabric ½ inch and press.
3. Pin decorative zipper to front of case. Stitch zipper along outside edges of trim (figure D2).
4. On inside, slipstitch edges of case to zipper tape.
5. Open zipper. Pin and stitch case front to case back, right sides together. Trim seams and corners. Turn case to right side. Press.
Packable Lingerie Cases, continued

Case A
- Centered
- 9"
- 12"

Case B
- Lapped
- 12"
- 15"

Case C
- Invisible
- 13"
- 17"

Case D
- Decorative trim
- 14"
- 18"

figure D1
- Decorative trim

figure D2
- Decorative trim
Materials Needed:
Clean sweater with ribbed bottom edge
Yarn in matching color
Ruler
Pins
Scissors
Darning needles

1. Lay the sweater out flat and match lower edges.

2. Measure up from lower edge 12 inches (30 centimeters) and mark with pins.

3. Cut off lower section of sweater along pin line.

4. Cut open one side seam and lay out flat.

5. Measure 18 inches (46 centimeters) and cut off. You may have enough for 2 hats, or a hat and mitten set.

6. Fold to bring short edges together, right sides inside. Pin.

7. With matching yarn, backstitch across short side ¼ inch (6 centimeters) from edge. Hand overcast or serge seam allowances together.

8. The cap is completed by placing 2 rows of running stitches, ¼ inch (6 centimeters) and ⅜ inch (1 centimeter) from the cut edge to the fabric opposite the ribbing. Instead of fastening the final thread, leave 6 inches (15 centimeters) free. Pull these threads up tight on the wrong side, tie, and fasten securely. This makes the top of the cap. Add pom-pom on the right side for a finishing touch.
Making a Hat, continued

Materials Needed:
Yarn
Cardboard—several pieces 8 1/2 × 11 inches (22 × 28 cm)
Scissors

Making a Pom-pom
1. Out of the cardboard, cut two, 4-inch circles with a 3/4-inch opening in the center, to form a donut shape.

2. Place two donuts together. Thread darning needle with yarn. Wind yarn through hole until filled. Join lengths of yarn as you go by tying ends together. (figure A)

3. Snip yarns all around between cardboard rings. (figure B)

4. Wind a length of yarn four times between cardboard circles. (figure C) Tie firmly with a knot. Leave 12 inches (30 cm) of this yarn to tie pom-pom to top of hat. Cut away cardboard circles. Trim pom-pom until smooth and even. Use yarn end to attach pom-pom. (figure D)

5. Have the members put their sewing tools in their storage boxes.
SEWING FOR OTHERS
CLOTHING & TEXTILES, LEVEL II, CREATING WITH FABRICS AND FIBERS
Activity Sheet

Making Mittens

Materials Needed:
1 or 2 sweaters with ribbing at waist and/or sleeves
Brown paper for making pattern
Pencil
Scissors
Pins
Matching yarn
Darning needles
Embroidery floss (optional)

1. To make the mitten pattern, place the hand on a piece of brown paper. Trace around the thumb and fingers. Add about 1 inch (2.5 cm) around fingers and thumb, but only ½ inch (1.3 cm or less at the wrist). This is for seam allowances and wearing ease. The length of the mittens can vary.

2. Lay the mitten patterns with the wrist edge on the ribbed section of the sweater, either on the sleeves (cut open first and lay flat) or at the waistband.

3. Cut 4 mittens for the right hand and 4 for the left. One set is for lining. The pieces used for lining do not have to be cut on the rib edge if there is a shortage of ribbing. The mitten linings can also be cut from a different sweater, in which case they can be reversible.

4. Sew the mitten pieces together with 2 rows of backstitch ¼ inch (6 mm) from the outside edge, or machine serge edges together.

5. To line the mittens, put lining mitten on the hand inside out and pull outer mitten (right side out) over first. Pin wrist edges together and overcast stitch securely.

6. Decorate mittens with embroidered initials or decorative designs. Mittens can be made very quickly for any member of the family.

7. Have members return sewing tools to sewing box.
What Members Will Learn . . .

ABOUT THE PROJECT:
- Parts of the sewing machine
- Parts of the serger
- Functions of the sewing machine and serger

ABOUT THEMSELVES:
- Confidence in their ability to use and adjust the sewing machine
- Confidence in their ability to use the serger machine
- How to make wise consumer choices when purchasing a machine

Materials Needed:
- A sewing machine for all members to view
- A serger for all members to view
- Pencils
- Copies of Activity Sheets and Member Handouts

ACTIVITY TIME NEEDED: 45 MINUTES

ACTIVITY:

As with any hobby or sport, there is special equipment that is used to perform the task. In sewing, we have two special pieces of equipment that we use to complete our projects. These items are the sewing machine and the serger. Some of you may own both, some of you may own neither. Whether you have your own or borrow, it is important for you to understand how each works, its parts, and the proper way in which to use the features of each one. Such machines are major investments by the owners, usually costing at least several hundred dollars. That is why it is essential that they are used properly, ensuring they last many years.

Learning to use the sewing machine is fun. By learning the sewing machine parts and the purpose of each before using them, you will enjoy sewing more because you will know how to fix some of the problems caused by the machine when sewing. The parts can be grouped as follows: tension disc, bobbin, upper threading system, presser foot, fabric feeders, and stitching regulators. Study your sewing machine manual to learn the parts. As a group, let’s take a closer look at parts common to most sewing machines.

Leader Notes

Welcome all members. Have them sit in a comfortable place around the machine and serger you are using for models. Have members introduce themselves, if they do not know each other. Have them tell about a machine or piece of equipment used in another sport or hobby. You begin.
Leader Notes

As you discuss these parts, point them out to members on the model machine you have. Allow time for questions. Pass out the Parts of the Sewing Machine handout. As you name the parts, have members fill in the spaces. See page 52 of the book, Stitch and Wear, located in the introduction of the notebook, for parts of the serger.

**TENSION PARTS**
- **Tension control:** Used to select the correct amount of tension for the stitch, thread and fabric you are using.
- **Tension disc:** Used to regulate the amount of tension (drag) on the thread as it comes through the needle.
- **Check spring:** Used to soften the sharp tugs of the take-up lever on the thread.

**BOBBIN PARTS**
- **Bobbin winder:** Holds the bobbin in place for filling.
- **Slide plate:** Slides or tilts to expose the bobbin area.
- **Bobbin case tension screws:** Used to adjust bobbin tension (on rare occasions).

**UPPER THREADING SYSTEM**
- **Spool pin:** Holds upper thread spool(s); may be vertical or horizontal.
- **Thread guides:** Used to guide the upper thread from spool, to tension discs, to check spring, to take-up lever, and to needle.
- **Balance wheel:** Controls the operation of the take-up lever and needle and is used on some sewing machines to start the sewing operation. The balance wheel loosens the clutch for bobbin winding.
- **Needle screw:** Used to hold the needle in place.

**PRESSER FOOT PARTS**
- **Presser foot:** Firmly holds the fabric in place against the feed dog.
- **Presser foot lever:** Used to raise and lower the presser foot. When raised, this releases the tension (drag or pull) on the upper thread.
- **Presser control:** Regulates the presser foot pressure on the fabric.

**FABRIC FEEDER PARTS**
- **Feed dog:** Moves the fabric at an even speed under the presser foot.
- **Throat plate:** Encloses the feed dog and provides an opening for the needle to go through to the bobbin area. Some machines have different throat plates for different stitching, such as zigzag.

**STITCHING REGULATOR PARTS**
- **Stitch length control:** Used to determine the desired stitch length.
- **Stitch width regulator:** Enables you to have a variety of stitch widths (from wide to narrow) on zigzag sewing machines.
• **Reverse stitch:** Is a lever or button which allows you to instantly reverse the direction of stitching.

• **Stitching speed:** Allows you to adjust the speed at which the sewing machine operates. It is either located on the body of the machine, or the foot pedal.

**OTHER PARTS**

• **Power switch:** Turns the sewing machine on and off.

• **Built-in light:** Illuminates the fabric in front of the needle.

• **Light switch:** Turns light on and off. On some models it is combined with the power switch.

• **Foot control or knee lever:** Controls the speed of the machine.

• **Thread cutter:** A sharp area for cutting sewing thread.

• **Free arm:** The part of a machine bed that sticks out like an arm and allows fabric to slide onto it for less bunching around curves and ease in sewing tubular shapes.

Here is a handout that will help you identify general problems that might happen to your sewing machine.

Another machine that is used for sewing is the serger or an overlock machine. A serger adds speed and ease to sewing. Sergers stitch, cut, and overcast the cut edge all in one step. They look and stitch differently than a sewing machine. From using a conventional sewing machine, you know that it has one needle with one spool of thread, and one bobbin, and that it usually stitches one row at a time. Sergers can have more than one needle and spool of thread; they have loopers instead of a bobbin.

There are several types of sergers. They are usually identified by the stitch they form and the number of threads the machine uses. Sergers do not have bobbins. Instead, they have loopers with a hole in one end through which thread is threaded. The threads from the loopers interlock and form a finish that covers the cut edge. Sergers also have a pair of very fine, sharp cutting blades to the right of the needles. The blades cut or trim the fabric before the loopers form the finish that covers the cut edge.

Sergers have one or two needles and can use two, three, four, or five spools of thread. The three and the three- or four-thread sergers are the most commonly used. A short description of each type follows.

• **Two-Thread:** The two-thread serger makes a chain stitch. This stitch is sturdy, but is easy to pull out.

• **Three-Thread:** Three-thread sergers have one needle, two loopers, and a set of cutting blades. They require three spools of thread. One spool is threaded through a needle and stitches much like a sewing machine. The other two are threaded through the two loopers. These two threads interlock to form an overcast stitch that finishes the cut edge.
Three-thread sergers are used to stitch seams and to finish the cut edges of seam allowances. The seams stitched are moderately strong. When more strength is needed, the seams should be reinforced with a row of sewing machine stitching. Some three-thread sergers can also make a rolled hem stitch and a flatlock stitch.

- **Three/Four-Thread**: A three/four-thread serger can be used either way, making it a very popular type. When used as a four-thread serger, two needles and two loopers are used. It requires four spools of thread. Two spools of thread are threaded through two needles. The other two spools of thread are threaded through the two loopers.

These machines actually make a three-thread stitch with an extra row of stitches, which is stitched by the second needle. The second row of stitching is stitched through the middle of the overcasted edge. As a result, this stitch is stronger and slightly wider than one formed by a three-thread machine.

This stitch should be used on all seams that need extra strength. Examples would be the seams stitched on blue jeans and jackets. If extra strength is not needed, avoid using it, as the seam is bulkier and uses additional thread.

- **Five-Thread**: The five-thread serger operates like the four-thread, using two needles and two loopers. It contains a lockstitch to the left of the regular serging. This stitch is less flexible and is not used as often as the three- or four-thread serging machines.

Parts of the Serger:
- Spool holders
- Needle thread tensions
- Upper-looper tension
- Lower-looper tension
- Presser foot lever
- Light
- Needles
- Cutting blades
- Upper-looper
- Lower-looper
- Presser foot
- Power switch
- Foot control

Since serger machines use more thread than a sewing machine, it is more economical to buy thread on large spools or cones than on small spools. Serger thread is finer than regular thread. Since sergers sew so fast, a special finish is applied to serger thread to make it extra strong for high-
speed sewing. The finer thread designed for sergers makes seams less bulky and less stiff. Serger thread can be finer because there is not as much abrasion from tension guides as on a sewing machine.

Thread on large spools or cones often is available in a limited assortment of colors, so matching thread to fabric can be a problem. If a garment requires matching thread and it is unavailable, buy matching thread on a small spool for the needle thread, and use large cone thread that blends with the fabric for the loopers.

The thread tension on a serger is controlled by tension knobs or discs. The thread tension on sergers is just as important as the thread tension on a sewing machine. When the tension is balanced, stitches are even on both sides of the fabric so there is no puckering, binding, ruffling, or loose loops. Upper and lower threads lock around each other just at the edge of the fabric.

If you or your family are considering purchasing a sewing machine or serger, here are some handouts to help you make your decisions.

**DIALOGUE FOR CRITICAL THINKING:**

**Share:**
Q. Name the part of the sewing machine that moves the fabric at an even speed under the presser foot.
A. Feed dog.

Q. How does a serger speed up sewing?
A. It stitches, cuts, and overcasts all at one time, as well as sewing more stitches per minute.

**Process:**
Q. How is a serger like a sewing machine? How is it different?

Q. What do you think is one of the most important parts of the sewing machine? Why?

**Generalize:**
Q. How will you decide whether to use the conventional sewing machine or serger?
A. Answers will vary. Things you can’t do on the serger are necessary for basic clothing construction, i.e., top stitching, button holes, lock stitch seams, etc.

Q. How would the serger be useful to you in your sewing project?

Pass out activity sheets on Selecting Overlock Machines and Buying a Sewing Machine, located in the resource section.
Apply:

Q. Now that you know about both types of machines, do you think that having a serger is a luxury or not? Why or why not?
A. Answers will vary, i.e., time saving in our busy lives might seem to make sergers necessary to some, while the expense for some who seldom sew would rule it out for them.

Q. Why is it a good idea to use checklists when making a major purchase decision?

GOING FURTHER:

• Take a field trip to a local sewing fair, the state fair, or a local fabric shop that sells sewing machines and sergers. Have members compare and discuss features of various makes and models. Design a check sheet for members to use to compare them.
• Have members practice winding bobbins on the machine.
• Have members experiment with different tensions on differing fabrics. Record results.
• Using two different colors in the top and bobbin threads. Sew on fabric until you get a perfect tension setting.
• Have an “instruction manual” scavenger hunt. Previously find answers about the sewing machine and serger from their instruction books. Divide members into two teams and have them look for the answers. The first team to find all the answers wins.
• Have members do a demonstration at the county fair about threading a sewing machine, serger tension, comparison shopping for machines, or some other related topic.

REFERENCES:

Stitch ‘N Wear, Ruth Gulbrandson, Clothing Specialist, and Merry Green, McHenry County Home Economist, Cooperative Extension Service, North Dakota State University, Fargo, North Dakota 58105

Clothing Leader Guide, Texas Agriculture Extension Service, Alma Fonseca and Ann Beard, Clothing and Textile Specialists, Texas A&M, College Station, Texas


Creative Clothing, Leader’s Guide, Gail Skinner, Clothing Specialist, Cooperative Extension Service, University of Nebraska-Lincoln, Lincoln, Nebraska

Selective Overlock Sewing Machines, Joyce A. Smith and Norma Deyo, Clothing Extension Specialists, Cooperative Extension Service, Ohio University, Columbus, Ohio 43210

Buying a Sewing Machine, Marilyn Stryker, Clothing Extension Specialist, Cooperative Extension Service, Kansas State University, Manhattan Kansas 66506

Member Activity Sheet, Sewing Machine Crossword Puzzle, can be given out while members are waiting to be picked up after the meeting, or sent home to be completed.
Author:
Developed by a team including, Carla Dill, Extension Assistant; Lucinda Schoenberger, Clothing Specialist; Mary Don Peterson, Clothing Specialist; Artyce Hedrick, Clothing Specialist, Cooperative Extension Service, Kansas State University

Reviewed by:
Steve Fisher, Extension Specialist, 4-H Youth Programs, Cooperative Extension Service, Kansas State University; and members of the Family Living Curriculum Development Committee and Clothing & Textiles Design Team
Name the parts of the sewing machine.
SEWING EQUIPMENT
CLOTHING & TEXTILES, LEVEL II, CREATING WITH FABRICS AND FIBERS
Activity Sheet

Sewing Machine Puzzle
# SEWING EQUIPMENT

## CLOTHING & TEXTILES, LEVEL II, CREATING WITH FABRICS AND FIBERS

### Member Handout

---

## First Aid for Sewing Machines

<table>
<thead>
<tr>
<th>Problems</th>
<th>Probable Causes</th>
<th>Problems</th>
<th>Probable Causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Motor doesn’t run</td>
<td>Not plugged in</td>
<td>6. <strong>continued</strong></td>
<td>Insufficient thread pulled through needle to start seam</td>
</tr>
<tr>
<td></td>
<td>Power and lightswitch turned off</td>
<td></td>
<td>Machine improperly threaded—top or bobbin</td>
</tr>
<tr>
<td>2. Motor runs/machine doesn’t</td>
<td>Hand wheel knob loose (set for bobbin winding)</td>
<td>7. Thread snarling at start of seam</td>
<td>Bobbin thread not pulled up through needle hole before start of seam</td>
</tr>
<tr>
<td>3. Machine won’t turn over (locked or jammed)</td>
<td>Needle threaded in wrong direction</td>
<td></td>
<td>Seam started without both threads placed under presser foot and drawn diagonally to right rear</td>
</tr>
<tr>
<td></td>
<td>Needle in backwards</td>
<td></td>
<td>Didn’t start seam with needle in fabric before lowering presser foot</td>
</tr>
<tr>
<td></td>
<td>Needle bent</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Needle not all the way up into clamp</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Needle wrong style</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Machine threaded incorrectly</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bobbin case inserted incorrectly</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Empty bobbin</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stitch length set at zero</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Machine turns over but won’t form a stitch</td>
<td>Needle threaded in wrong direction</td>
<td></td>
<td>Spool notch in wrong position when placing spool on spool pin/reel</td>
</tr>
<tr>
<td></td>
<td>Needle in backwards</td>
<td></td>
<td>Burrs around needle hole or presser foot area</td>
</tr>
<tr>
<td></td>
<td>Needle bent</td>
<td></td>
<td>Rough or burred thread guide</td>
</tr>
<tr>
<td></td>
<td>Needle not all the way up into clamp</td>
<td></td>
<td>Machine improperly threaded</td>
</tr>
<tr>
<td></td>
<td>Needle wrong style</td>
<td></td>
<td>Bent needle</td>
</tr>
<tr>
<td></td>
<td>Machine threaded incorrectly</td>
<td></td>
<td>Wrong size or type needle for fabric and thread</td>
</tr>
<tr>
<td></td>
<td>Bobbin case inserted incorrectly</td>
<td></td>
<td>Needle not all the way up into clamp</td>
</tr>
<tr>
<td></td>
<td>Empty bobbin</td>
<td></td>
<td>Defective thread</td>
</tr>
<tr>
<td></td>
<td>Stitch length set at zero</td>
<td></td>
<td>Both threads not diagonally to right rear in starting to sew</td>
</tr>
<tr>
<td>5. Machine skips stitches</td>
<td>Needle bent</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Needle not all the way up into clamp</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Needle incorrectly inserted (backwards)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Needle has accumulated lint and/or sizing, especially when sewing knits and permanent press fabrics</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Needle wrong style for machine or fabric or thread</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Needle unthreads</td>
<td>Started to sew without take-up lever at highest point</td>
<td>9. Bobbin thread breaks</td>
<td>Bobbin improperly or over wound</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bobbin cast not inserted properly</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Damaged bobbin and/or bobbin case</td>
</tr>
<tr>
<td>10. Thread looping between stitches</td>
<td></td>
<td></td>
<td>Machine improperly threaded (top or bobbin)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Tensions unbalanced</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Needle thread not seated between tension discs or under bobbin case tension spring</td>
</tr>
</tbody>
</table>

*Note: This chart provides a general guide for troubleshooting sewing machine problems. Always ensure the machine is unplugged before making any adjustments.*

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182-Clothing & Textiles, Level II
### First Aid for Sewing Machines, *continued*

<table>
<thead>
<tr>
<th>Issue</th>
<th>Possible Cause(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td>Seam puckering</td>
</tr>
<tr>
<td></td>
<td>Stitch length too long for fabric</td>
</tr>
<tr>
<td></td>
<td>Damaged or too coarse needle</td>
</tr>
<tr>
<td></td>
<td>Unbalanced tensions or balanced tensions both too tight</td>
</tr>
<tr>
<td></td>
<td>Presser foot pressure too heavy</td>
</tr>
<tr>
<td></td>
<td>Feed dog sits too high</td>
</tr>
<tr>
<td>11.</td>
<td><em>continued</em></td>
</tr>
<tr>
<td></td>
<td>Feed dog out of time (service required)</td>
</tr>
<tr>
<td></td>
<td>Thread too coarse for fabric</td>
</tr>
<tr>
<td></td>
<td>Presser foot pressure too light</td>
</tr>
<tr>
<td></td>
<td>Foreign matter between teeth of feed dog</td>
</tr>
<tr>
<td></td>
<td>Throat plate and/or feed in &quot;darn&quot; position</td>
</tr>
</tbody>
</table>

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SEWING EQUIPMENT
CLOTHING & TEXTILES, LEVEL II, CREATING WITH FABRICS AND FIBERS
Activity Sheet

Sewing Machine Crossword Puzzle

ACROSS
3. Moves up and down to pull thread to the needle.
6. Changes the size of stitches
8. Holds bottom thread.
10. Hole the needle goes through to make stitches.

DOWN
1. Goes through the fabric with the thread.
2. Raises and lowers the presser foot.
4. Moves needle up and down.
5. Holds fabric as you sew.
7. Controls tightness of thread.
9. Holds spool for top thread.
SEWING EQUIPMENT
CLOTHING & TEXTILES, LEVEL II, CREATING WITH FABRICS AND FIBERS
Activity Sheet, Leader’s Key

Sewing Machine Crossword Puzzle

ACROSS

3. Moves up and down to pull thread to the needle.
6. Changes the size of stitches
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DOWN

1. Goes through the fabric with the thread.
2. Raises and lowers the presser foot.
4. Moves needle up and down.
5. Holds fabric as you sew.
7. Controls tightness of thread.
9. Holds spool for top thread.
Buying a Sewing Machine

A sewing machine is a major family purchase. It should serve the family for many years. When you select a sewing machine, keep in mind the machine operation as well as the type of sewing machine that will meet the sewing needs of the family. Through careful planning of your sewing machine purchase, your sewing can be made more enjoyable and the satisfaction in your purchase will be long-lasting.

To help you in choosing a sewing machine—new or used—use this checklist. Compare several machines on operation, ease of use, care, and service in order to find the machine that will best fit your family sewing needs.

<table>
<thead>
<tr>
<th>Buying Considerations</th>
<th>Machine Checks</th>
<th>Compare and Check Three Sewing Machines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does it stitch evenly? Do the individual form a straight line?</td>
<td>Stitch Quality</td>
<td>Satisfactory Adequate Fair</td>
</tr>
<tr>
<td>Can speed be easily controlled? Does it start easily? Will it operate slowly? Does it change speeds easily?</td>
<td>Speed Control</td>
<td>#1 #2 #3 #1 #2 #3 #1 #2 #3</td>
</tr>
<tr>
<td>Is the stitch length control easy to read and operate? How does the machine reverse stitching? Is reverse lever easy to handle?</td>
<td>Stitch Length</td>
<td></td>
</tr>
<tr>
<td>Is the speed control comfortable for long periods of sewing? Does the machine stop quickly when you release the control?</td>
<td>Speed Control</td>
<td></td>
</tr>
<tr>
<td>Is the machine quiet? Is it free from objectionable noise and vibration at all speeds?</td>
<td>Quiet</td>
<td></td>
</tr>
<tr>
<td>Is there a well-written and illustrated instruction book explaining how to operate, adjust, and care for the machine?</td>
<td>Instructions</td>
<td></td>
</tr>
<tr>
<td>Are the controls easy to read and understand? are they sturdy?</td>
<td>Easy To Use</td>
<td></td>
</tr>
<tr>
<td>Does the machine make buttonholes? Does the buttonhole it makes look good?</td>
<td>Buttonholes</td>
<td></td>
</tr>
<tr>
<td>Can the pressure of the presser foot be easily adjusted to heavy and lightweight fabrics? Try sewing different fabrics.</td>
<td>Pressure</td>
<td></td>
</tr>
<tr>
<td>Can the bobbin be wound easily and evenly? Is it easy to insert and remove?</td>
<td>Bobbin</td>
<td></td>
</tr>
<tr>
<td>Are the upper and lower tension controls easy to adjust?</td>
<td>Tension</td>
<td></td>
</tr>
<tr>
<td>Can the feed dogs be easily lowered, raised or covered for embroidery, darning, etc.?</td>
<td>Feed Dogs</td>
<td></td>
</tr>
</tbody>
</table>
## Buying a Sewing Machine, *continued*

<table>
<thead>
<tr>
<th>Buying Considerations</th>
<th>Machine Checks</th>
<th>Compare and Check Three Sewing Machines</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Satisfactory (meets needs) Adequate (meets most needs) Fair (meets few needs)</td>
</tr>
<tr>
<td></td>
<td>#1</td>
<td>#2</td>
</tr>
<tr>
<td>Is the lighting adequate? Is the lamp placed or guarded so you will not be burned?</td>
<td>Light</td>
<td></td>
</tr>
<tr>
<td>Can the bulb be replaced easily?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is there a disturbing glare from light reflections on the sewing machine surface?</td>
<td>Glare</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
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<td>Is the needle simple to change? Can the needle position be adjusted to the center position and to the side positions?</td>
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<td>Will the machine be easy to care for at home? Can the areas where lint accumulates be conveniently brushed clean?</td>
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<td>How often does the machine have to be oiled? Are the directions simple and clear?</td>
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<td>Does the machine need a cabinet?</td>
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<td>What kind of storage will the machine require? Will it fit into the space you have at home?</td>
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<td>Is the electrical cord long enough?</td>
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<td>What is included in the warranty? When agrees to do what, when, and where?</td>
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<td>What is the purchase price? What does it include?</td>
<td>Price</td>
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### Reminders
- Don’t be afraid to ask questions about the things you want to know.
- Take time to select the type of sewing machine that will fit your needs.
- Try the machine out yourself. You will be the one who will be using it, not the salesperson.
- Don’t forget to take sample fabric swatches with you for testing. Many machines sew beautifully on stiff fabric, but some falter on lightweight or bulky fabrics.
- Sew long enouth to satisfy yourself as to what the machine will do.
- Upon delivery, be sure your machine operates as the one demonstrated.
- Learn to use and operate your machine.
## Selecting Overlock Machines Buyer’s Checklist

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<td>3 to 4 Thread Overlock to Chain, etc.</td>
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<td>8. Stitch Quality on Various Fabrics</td>
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Apparel Production

Clothing & Textiles, Level II, Creating with Fabrics and Fibers

What Members Will Learn . . .

ABOUT THE PROJECT:

• Techniques of handmade stitching, different types of seam finishes, darts, gatherings, buttonholes, top stitching
• Appropriate use of each of these techniques

ABOUT THEMSELVES:

• Confidence from learning and practicing advanced construction skills
• Sewing skills can be improved with practice and patience

Materials Needed:

• Let members bring a pattern and fabric of their choice to begin work
• Have samples for the members to look at (Area Extension Offices have a Construction File for check out)
• Have fabric scraps cut and ready for members to practice the mentioned techniques or to make their own construction file or notebook
• Copies of Activity Sheets and Member Handouts
• Copies of patterns for tool apron or shower wrap

ACTIVITY TIME NEEDED: 60 TO 90 MINUTES, OR COULD BE EXPANDED TO TWO SESSIONS

ACTIVITY:

As you learn to sew, you will find that all the steps become easier with practice. (You should have already done some machine sewing.) As you add a new technique, it may seem very difficult at first, but with practice and experimentation, it will get simpler. There is much more to sewing than a straight machine stitch. We will talk about some of the skills that will allow you to expand the kinds of items you can create. Don’t be discouraged if these techniques don’t seem easy at first.

Once you have decided upon a project, purchased the fabric, preshrunk it, and cut it out, you are ready to begin to sew. The best place to begin is with your pattern directions. Follow them step by step. As you learn new methods, you may feel comfortable changing some directions, but until you do, it is best to follow the pattern guide. Don’t be discouraged if the instructions seem hard to understand. Sewing has a language all its own, and you will be learning this new language. Sometimes it takes rereading directions before they are clear.

Leader Notes

Welcome members and have them sit in a comfortable place. If they do not know each other, allow them time to introduce themselves. Have each member tell one skill he/she wants to learn. You begin.
It is best to read directions, reread them, prepare the garment for the treatment, and then compare it to the picture and directions once again before performing the actual step. This can save you valuable time by reducing "rip-outs."

Today, we will talk about some special production terms. That way you will understand them and why they are important when you create garments.

The first thing most patterns tell you to do is **staystitching**. Staystitching is regular stitching done just inside the seam allowance to prevent stretching or to hold your pieces in shape while you are sewing them. Your pattern guide sheet shows the direction to staystitch. To staystitch, use matching thread, stitching on a single thickness with the grain, ⅛ inch inside the seam allowance. Do not backstitch or tie threads.

**Basting** temporarily holds fabric pieces together and can be done by hand, pins, machine, glue, or water soluble basting tape. Your guide sheet will tell you when to machine baste. You may want to pin baste or hand baste the fabric pieces together for fitting or machine stitching. Experienced sewers sometimes pin baste and fit before stitching.

To pin baste, place pins across the stitching at a right angle, if using a conventional machine. If using a serger, place pins the same direction as the stitching, or parallel to the edge and far enough back that they will not catch under the needle or cutter. For both types of machines, make the cut edges even and pin seam ends and notches first; add more pins if needed. To hand baste, use a needle with single thread in a contrasting color, and take short stitches. There are various types of basting stitches to use in sewing.

Use even basting stitches to hold fabric together for fitting or machine stitching. Uneven basting, a stitch made with a short stitch then a long stitch, is used to mark fold lines and location lines, such as the center front, button holes, or pockets. Long stitches are placed on the right side. Slip basting is made by working on the right side of the fabric, and used to match plaids and strips, hold pockets in position, and hold fitting adjustments in place. Diagonal basting is used to hold interfacing to the fashion fabric, hold the lips of buttonholes together, and keep the edges of the garment from pulling apart. To machine baste, pin baste first, then set machine to longest stitch, use contrasting thread, and baste just inside the seamline.

**Darts** are used to shape fabric to fit your figure. They provide fullness to fit body curves. Not all garments have darts, due to the design or fabric stretch. It is important that you are accurate in fitting, marking, stitching and pressing darts. Choose a marking method appropriate for your fabric. For darts, mark the stitching line, the center fold line, and any matching dots or symbols from the pattern to the fabric.
When sewing the darts, fold the dart on the center line to bring the marked stitching lines together. Pin at the point, at the wide end, and along the seamline. Add pins as needed along the stitching line. If you wish, hand baste along the stitching line. Start the machine stitching at the wide end of the dart and backstitch to secure the threads. Hold the tails of thread on the fabric as a stitching guide. (Stitch toward the point gradually so the last two or three stitches are along the fold. This will result in a smooth, pucker-free point end.) Run off the end of the fabric, then pull it toward you 1 to 1 1/2 inches. Then make three or four small stitches in the dart allowance to replace the knot. (See sample in the Construction File, Area Extension Office).

Before pressing the darts, be sure the fit is correct. Then, press the folded side of the dart flat the way it was stitched, but be careful not to press beyond the point. Next, open out the garment, wrong side up, and shape the dart by finishing the pressing over a pressing ham or rounded surface. Press the dart in the direction that allows the smoothest finish. If the fold of a dart tends to make a ridge on the front of the fabric, slip a piece of paper between the dart and the fabric before pressing firmly.

A **seam** is made of two layers of fabric with a line of machine stitching. Seams are usually functional, but some are also decorative. The standard seam allowance is 5/8 inch, but some patterns may have a different seam allowance, so always check. When stitching seams, use your sewing machine throat plate markings to help you maintain an even width. NOTE: If your machine does not have this marking, accurately mark and place tape on the machine. Always press a seam open before crossing with another seam. It is important to secure stitching at the beginning and end of the seam.

**Seam finishes** are important on fabrics that may ravel or roll, or will receive much wear. Some firmly woven fabrics and double and single knits may be left unfinished.

It is wise to try several seam finishes before deciding if you need to use one and which one to use. Different fabrics call for different finishes. To decide, consider:

- The fabric type and weight, whether it is woven or knit, its tendency to ravel or run, or the tendency of the seam edges to roll.
- The wear and care the garment will receive. Garments which are worn and washed frequently will need more durable finishes than infrequently worn or fad-type garments.
- Whether or not the seams will be seen. An unlined jacket requires attractive seam finishing, while a lined garment may need no seam finish or only one which will prevent raveling.

Types of seam finishes include:

- **Machine stitched**—Use a line of short machine stitches (10 to 12 stitches per inch or 2.5 to 3.0 setting) ¼ inch from the edge of the seam allowance. Allow the ¼ inch edge to fray and soften for fabrics.
with tightly twisted yarns, to prevent the edge from forming a ridge visible to the right side. This is a quick but not long lasting finish.

- Stitched and pinked—Use a line of short stitches ¼ inch from the edge of the seam allowance. Then cut the edge of the seam allowance with pinking shears. This finish allows for the softening of the edge by pinking and minimizes raveling.

- Zigzag—Test a sample of your fabric using a short stitch length and medium stitch width (2.0 to 2.5). Stitch near, but not on the edge of, the seam allowance for soft fabrics; stitch over the edge for firm fabrics. Multi-stitch zigzag, machine overedge, or blind stitch may also be used. Check that the seam finish remains flat, not causing a ridge or imprint when pressed and not stretching or rippling. Readjust stitch length, width, and location on the seam allowance, if needed. After zigzagging, trim the edge of the seam allowance to stitching if needed. This is an effective finish to prevent raveling.

Understitching is an extra row of machine stitching added after an area such as a collar or neckline has been completed. Understitching prevents a facing or under section of a collar or cuff from rolling outwards. It is easiest to understitch on the right side of a garment.

First, grade the enclosed seam and clip or notch if necessary. Turn seam to facing or under collar/cuff. On the right side, stitch close to the original seamline catching the seam to the facing or under collar/cuff.

Gathering is used to control a large amount of fullness that is part of the garment design. Areas that might use gathering are waistlines, cuffs, yokes and ruffles. Gathers should be evenly distributed without gaps or folds. Gathers are indicated on patterns by seamlines labeled “gathering line.” Dots or circles show the beginning and ending of the area to be gathered. These symbols should be transferred from the pattern to the fabric when you do the marking.

Before gathering, be sure to stitch, edge finish, and press open any seams that will be crossed by the gathering. The gathering stitch should be slightly longer than the normal stitch used for seams. You may want to test this length.

Stitch two parallel rows of gathering stitching in the seam allowance. Put the first row of gathering ¾ inch from the edge and the second row ½ inch from the edge. The seam is then sewn on the ⅜ inch line. Remove the gathering stitch that is ¾ inch from the edge.

Another way of gathering is to use zigzag stitching over a thin, strong cord (Dental floss works great!) Set the machine for medium-stitch width and medium-stitch length. Place the cord ¼ inch above the seamline and zigzag stitch over the cord to hold it in place. If needed, adjust the stitch width in order to avoid stitching into the cord. To draw up the gathering, pull on the cord from one end. This method is especially good for long areas that are to be gathered since gathering threads break easily.

Pass out Member Handout, “Gathering” for more specific details and illustrations.
To attach a gathered edge to a straight edge, pin the right sides of the fabric together at any points of matching, such as notches or center front and center back seams. Temporarily fasten the bobbin threads at one end by winding them in a figure-8 around a pin. Pull the bobbin threads at the opposite end by sliding the fabric along the bobbin thread until the edges match in length. Secure the threads around a pin in a figure-8 and repeat from each end until the edges match and the gathers are evenly distributed. Pin crosswise to the cut edge as needed in the body of the garment (never on the stitching line; broken needles!) to hold the gathers in place and keep them from slipping or bunching.

Readjust the sewing machine to the correct length of stitch for seams before stitching the gathered and straight edges into a seam. Place the gathers on the bottom so that the feed dog can assist in pulling the gathers through evenly.

Press the seam allowance flat as it was stitched, using the tip of the iron. Finish the gathered seam edge. Open the garment flat with the straight edge folded back. This leaves the gathers so you can press them. Press the seam allowance with the tip of the iron, being careful not to press folds into the gathered section. When you press the gathered area, work by directing the point of the iron into the gathers.

**Buttonholes** must be all the same length and width, stitched on grain, and an even distance from the edge. They should be just large enough to let the button slip through easily, but small enough to hold the garment closed. Always make, cut, and try a sample buttonhole before making buttonholes on your garment.

For flat buttons, buttonhole length should equal the diameter of the button, plus the thickness of the button. Mark buttonhole placements on the overlap section only.

On very stretchy fabric, the area under the buttonhole should be stabilized with a lightweight interfacing. This will prevent the buttonhole from having “fishlike” lips. If your garment has not been interfaced before, add a rectangular shaped piece of interfacing under each buttonhole area.

Follow your sewing machine directions for making buttonholes. Practice making sample buttonholes on two scraps of your fabric with interfacing until you are happy with the way it looks.

After you have made a sample you are satisfied with, check these points:

- Stitching is secure
- Stitching is uniform
- Thread matches unless you want a contrast
- Buttonhole is on grain
- Buttonhole is interfaced
- Right length for button
- Buttonhole is neatly slashed (place a pin just inside each end of the buttonhole before you cut to reduce the chances of cutting through the ends)
Leader Notes

Allow members to experiment with making machine buttonholes. (Refer to sewing machine instruction book.)

If these are done to your satisfaction, take a moment to check the garment on which you will be applying them. Are the buttonhole spaces:

- marked the same distance apart?
- placed in the right spots to hold the garment closed securely?
- providing enough overlap when buttoned?

Make your buttonholes. Here are some cutting tips.

- To prevent thread ends from poking out after cutting the buttonhole, put a narrow line of seam sealant (Fray Check, No Fray, Fray No More) along both lips of the buttonhole before and after cutting it open.
- To keep from cutting past the ends of the buttonhole, insert a straight pin at each end of the buttonhole stitching.

As you gain skill, these techniques will become much easier and faster for you. The more you attempt these skills, the more satisfying sewing will become for you. Look for patterns that have only the skills you have practiced. This way, sewing can be fun and challenging instead of frustrating.

**DIALOGUE FOR CRITICAL THINKING:**

**Share:**

Q. Name two seam finishes.
A. Pinked, machine stitched, zigzagged.

Q. Why are darts sewn into garments?
A. Darts are used to shape fabric to fit a curve.

Q. Why do you only press to the point of a dart and to the seamline of gathers?
A. So that the outside of the garment looks neat without crease lines or ridges.

**Process:**

Q. Name three traits of a well-made buttonhole.
A. Stitching is secure and uniform, thread matches unless you want a contrast, buttonhole is on grain and interfaced, it is the right length for the button, and the buttonhole is neatly slashed.

Q. What skill seemed the most difficult for you? Why?

**Generalize:**

Q. Which of the skills that you have learned in this lesson seem to be the most useful and helpful sewing techniques that you will use in the future. Why?
A. Answers will vary, i.e., buttonholes, seam finishes, gathering, pressing.

194-Clothing & Textiles, Level II
Apply:
Q. What other hobbies or careers have their “own language?”
A. Computer, building construction, art, etc.

Q. How will you decide what seam finishes are appropriate for your fabric? How will the laundering procedure affect this decision?
A. Ravel of the fabric, are the seams to be visible, will correct care be given to this garment, how often it will be worn.

GOING FURTHER:
• Have members practice these skills at home and return with samples.
• Have members judge each others samples and make suggestions.
• For a community service project, have members host a repair clinic for a local homeless shelter that receives donated items in need of repairs.
• Members may want to volunteer to sew on buttons, etc., for elderly or shut-in persons.
• Have a sewing Olympics—the first person with a quality project wins. Projects must all be the same.

REFERENCES:
Easing and Gathering and Plain Seams and Their Finishes, Ardis Koester, Extension Textiles and Clothing Specialist, and Barbara Sawer, Extension Specialist, 4-H Youth, Oregon State University Extension Service, Oregon State University, Corvallis, Oregon
Stitch ‘N Wear, Ruth Gulbrandson, Clothing Specialist and Merry Green, McHenry County Home Economist, Cooperative Extension Service, North Dakota State University, Fargo, North Dakota 58105
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Reader’s Digest Complete Guide to Sewing
Let’s Sew, Nancy Zieman, Beaver Dam, WI, Nancy’s Notions, Ltd., 1991

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Reviewed by:
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Stitching Illustration Guide

Basting
To hold two or more layers of fabric together temporarily, hand basting is used. There are many types: even, uneven, diagonal, and slip basting.

Even basting is small stitches of the same length which are used to hold fabrics together that need a level of high control.

Uneven basting is long stitches which are used for marking seam lines and holding low control areas together.
Diagonal basting is small horizontal stitches which are a short distance from one another in order to create diagonal floats on the top fabric. The needle is worked right to left for this basting stitch. Smaller stitches have more control and longer stitches have less control.

Slip basting assists in accurate matching of plaids, stripes or other directional fabrics. It can also be used for fitting and for curved sections. Slip basting is done by working the needle from right to left with ¼-inch stitches with seam allowances matched and the top layer folded back along the seam. Stitches are taken bottom to top layer across the length of the seam.
Stitching Illustration Guide, continued

Machine Stitched
Stitch ⅛ inch from raw edge.

Multi-stitch Zigzag
See machine instruction book to set multi-stitch zigzag and stitch close to seam allowance edges.

Blind Stitch
This is an optional stitch for some machines. See instruction manual for setting. Generally used on knit fabrics to allow for stretch in the seam.
Zigzagged: Remember, stitch only on the edge of the seam allowance, not through the outside of the garment. Set stitch for medium width and short (about 15) length. Then stitch near, but not on, the edge of seam allowance. Trim close to stitching. This is one of the quickest and most effective ways to finish a fabric that ravels. It can be used for a knit, but special care must be taken not to stretch the seam edge, or it will ripple.

Stitched and Pinked: Using a short stitch, place a line of stitching ¼ inch from edge of seam allowance, (stitching only through seam allowance edge) then pink edge. This finish can be used when pinking is desired, and it will minimize raveling.
Edgestitch close to each seam edge. Set the machine to straight stitch. Guide the right edge of the presser foot along the cut edge of the fabric. (stitching will be 1/8 to 1/4 inch, 6 millimeters, from the cut edge)
Gathering

The purpose of gathering is to supply fullness as part of the design of a garment. Garment areas which may use gathering are distributed without gaps or folds. Gathering may be done by hand, but it is more even if done by machine.

The pattern symbol for gathering is the labeled seamline. Dots or circles frequently indicate the beginning and ending of the area to be gathered. These symbols should be transferred from the pattern to the fabric. Usually, gathers reduce fabric one-third to one-half its original width. Plan 1 1/2 to 2 times the finished length if you are not using a pattern.

Before beginning gathering—stitch, finish, and press open any seams that will be crossed by the gathering. Adjust the sewing machine upper tension to slightly looser than normal. An unbalanced tension makes pulling the bobbin thread easier. Test stitch lengths suitable for your fabric. Stitch lengths may vary from 6 stitches per inch (3 to 4 mm long) for thick, heavy materials, to 12 stitches per inch (2 to 2.5 mm long) for sheer, light fabrics. Use the shortest stitch length suitable for your fabric to give the most control of the gathers.

Stitch two parallel rows of gathering in the seam allowance. Locate the first line just inside the seamline and the second line 1/4 inch (6 mm) from the first in the seam allowance. If your fabric does not show needle holes after stitching has been removed, the gathers can be better controlled by locating three rows of gathering 1/4 inch (6 mm), 1/2 inch (1.3 cm), and 3/4 inch (1.9 cm) from the cut edge. The seam is sewn between the two lines, then the 3/4 inch (1.9 cm) line of stitching is removed. Stitch the rows of gathering from the right side.

If the fabric is heavy, stitch under the seam allowance, stop short of the seam, and start again on the other side of the seam leaving long thread ends to pull.

Zig zag stitching over a thin strong cord (dental floss works great!) or a double length of thread is used for long gathered edges or bulky fabrics. Set the machine for medium stitch width and medium stitch length. Place the cord or doubled thread 1/8 inch (3 mm) above the seamline and stitch over the cord to hold it in place. Adjust stitch width if needed in order to avoid stitching through the cord.
A gathering foot automatically gathers with each machine stitch. The longer the stitch, the closer the gathers will be. Determine the desired closeness and fabric needed by measuring a sample before and after gathering. Refer to your sewing machine manual for directions on operating the gathering foot.

To attach a gathered edge to a straight edge, pin the right sides together at any points of matching such as notches, center lines, and seams. To evenly distribute gathers in a long area, find the center point of each section and pin, then continue to match the centers of each section of fabric. Temporarily fasten the bobbin threads at one end by winding them in a figure 8 around a pin. Pull bobbin threads at the opposite end by sliding the fabric along the threads until the edges match in length. Secure threads around a pin and repeat as needed from each end until lengths match and gathers are evenly distributed. Pin as needed to hold gathers in place.

Adjust sewing machine to balanced tension and appropriate length stitch for seams before stitching seam with gathered and straight edges. Stitch on the seamline with the gathered side up—watching that pleats are not formed. Trim any seam allowances which are crossed.
Gathering, continued

Press the seam allowance flat as it was stitched using the tip of the iron. Finish the seam edge with a zigzag or overedge stitch, or apply a woven seam binding, twill tape, or grosgrain ribbon stay if the seam will receive stress, as a waistine seam. Open the garment flat with straight edge folded back and the gathers extended. Again, press the seam allowance with the tip of the iron, being careful not to press folds in the gathered section. When you press the gathered area, work by directing the point of the iron into the gathers.
APPAREL PRODUCTION
CLOTHING & TEXTILES, LEVEL II, CREATING WITH FABRICS AND FIBERS
Member Handout

Stitching Darts

Darts are used to shape a garment so it fits around your body’s curves. Marking Darts (see A):
Mark the darts on the wrong side of the fabric in one of these ways:
1. Using a fabric marking pen or chalk:
   • Mark the outer ends and the point of each dart.
   • Connect the ends and the point to mark the stitching line.
2. Mark the dart’s outline using a tracing wheel and tracing paper.

Stitching Darts
1. Fold the dart, right sides together, so the outer ends and the stitching lines meet.
2. Place the fabric under the presser foot. Lower the needle into the fabric at the outer edge of the dart.
3. Lock stitching by backstitching or stitching in place several times. Then, stitch from the dart’s outer edge to its point (see B).
4. At the point of the dart, stitch 2 or 3 stitches along the fold. This makes the end of the dart smooth and prevents a “dimple” (see C).
5. Tie threads by “chain stitching.”
   • Sew off the fabric, allowing threads to chain and lock together.
   • Attach the chain of stitches to the dart fold by sewing 2 or 3 stitches in the fold. Clip threads (see D).

As you gain experience, try this shortcut for marking and stitching darts:
• Mark only the ends and point of the dart with a marker or chalk. (Or mark the ends with “nips” and the point with a pin.)
• When you’re ready to sew, match the dart’s outer ends.
• Lower the needle into the fabric.
• Find a piece of lightweight cardboard at least as long as the dart. Before lowering the presser foot, place the cardboard between the ends and the point of the dart.
• Stitch, following the cardboard as a guide (see E).
Tools of the Trade Apron

Materials needed:

- 2/3 yard of 44-45-inch fabric
- Contrasting thread
- 1/4 yard fusible interfacing
- 4 1/2 yards of foldover braid
- Matching thread for braid

Suggested fabrics; Level 2—duck, medium-weight poplin, broadcloth, muslin, chambray; Level 3—canvas, denim

1. Make pattern on see-through paper.
   - Trace apron and pocket
   - Trace tool shapes from stitching guide

2. Cut out from fabric (see A).
   - Apron
   - Pocket

3. Cut out from fusible interfacing.
   - Pocket

4. Cut the fold over braid.
   - 43 inches for bottom edge of apron
   - 87 inches for apron sides and ties
   - 20 1/2 inches for top edge of pocket
   - 9 1/2 inches for top edge of apron

5. Trace, using white tracing paper
   - Pocket division lines
   - Tools on three pocket sections
Tools of the Trade Apron, continued

To decorate your apron
1. Fuse interfacing to wrong side of pocket, using manufacturer’s instructions.
2. Machine stitch around the outlines of the tools, using decorative stitches indicated on stitching guides. (Practice these stitches on scraps of fabric) (See B)

Applying fold over braid
1. Always place the narrower edge on top (see C).
2. Use the inside toe of the presser foot as your guide for straight stitching.

Ready to sew
1. Apply the 9½-inch piece of fold-over braid along top edge of apron (see C).
2. Apply the 20½-inch piece of braid along the top edge of pocket.
3. Position the pocket on apron and pin in place. Now, machine baste pocket around the outer raw edge (see D).

Finishing touches
1. Apply the 43-inch piece of braid around the bottom and sides of apron.
2. Apply the 87-inch piece of braid around the upper sides of apron.
Allow 20 inches for each tie and 23 inches for neck (see E).
Terry Shower Wrap

Materials Needed
¾ to 1 yard of 45-inch wide terrycloth. Yardage is determined by length desired. For boys: From waist to desired length. For girls: From high bust (above the bust, just under the armpits) to desired length.
Washable, contrasting fabric swatches for applique
Matching thread
1 yard ¾ inch wide no-roll waistband elastic
Hook and loop fastener dots or strip
Tissue paper

1. The width of the terry shower wrap is determined by the waist or high bust measurement plus 12 inches. The extra 12 inches are necessary for the overlap and 1-inch self-facing on each side.

2. For the length, figure the desired finished length, plus 3 inches. 1 inch will be turned over for the elastic casing, the other 2 inches will be for the 2-inch hem.

3. Overcast the four outside edges of terrycloth using the multiple stitch zigzag, the overlock or the double overlock stitch.

4. Fold top edge down 1 inch, pin, press and topstitch with a medium straight stitch. This makes the casing for the elastic to slide through.

5. The ¾ inch no-roll elastic should be approximately 5 inches shorter than the width of wrap. Double check this measurement by comfortably stretching the elastic around the waist, for a boy, or above the bust for a girl. Be sure elastic is long enough for the 5-inch overlap.

6. Fold up a 2-inch hem. Press and topstitch with a medium length straight stitch.

7. Feed elastic through casing and fold back 1 inch self-facings on both sides. Stitch facing down with the straight stretch stitch so each end of elastic is securely caught into the stitching.

8. Try wrap on, and mark loop fastener placement so wrap is held closed. Stitch hook and loop fastener in place, using the straight stretch stitch or a tiny zigzag stitch. Note: There will be at least 5 inches over lap so wrap won’t flap open.
Terry Shower Wrap, *continued*

9. Transfer applique design to a piece of paper (newsprint or tissue paper).

10. Pin a larger piece of fabric than needed for the applique to the right side of garment. Place transferred pattern over applique being sure pins will not interfere with stitching.

11. With a straight or tiny zigzag stitch, follow the design so the appliqued fabric is stitched in place. Tear away excess paper.

12. Trim away excess fabric from the right side of applique. Topstitch around applique with a satin stitch or the stretch blind hem stitch on the widest stitch width and $\frac{1}{2}$ stitch length.
Wearable Fiber Art
*Clothing & Textiles, Level II, Creating with Fabrics and Fibers*

What Members Will Learn . . .

ABOUT THE PROJECT:
- Recognize wearable fiber art
- How fiber art has been passed through the generations
- How to do one type of fiber art

ABOUT THEMSELVES:
- How to express creativity through designing a fiber art project of their own
- Possible links to their heritage by tracing ethnic wearable art

Materials Needed:
Depends upon the activity chosen; check the instruction sheets:
- Copies of Activity Sheets
- Each member should bring one sweatshirt or T-shirt or fabric scrap
- Examples of fiber arts (you may want to hold the meeting at a local museum)
- Materials for the chosen project

ACTIVITY TIME NEEDED: 60 TO 90 MINUTES, DEPENDING ON ACTIVITY CHOSEN. IF YOU CHOOSE TO MEET AT A MUSEUM OR CRAFT SHOP, TWO MEETING TIMES WILL BE NECESSARY. THE SECOND MEETING COULD BE FOR THE MAKING OF THE PROJECT.

ACTIVITY:
Art is defined as:
- Human creativity
- Skill
- Any specific skill/craft or its application
- A making of things that have form or beauty

If we consider these definitions, then it is easy to think of creating items from textiles as an art. Truly, any item we make in sewing takes skill, is creative, and is an application of this skill. Today, we will focus on the creative aspect of sewing; something that takes us a step beyond following a pattern.

As we have talked before, textile art in many cases has been handed down from one generation to the next. Knitting, crochet, cross-stitch, embroidery, tatting, rug hooking, needlepoint, smocking, and many other skilled art forms have survived the generations. What heirloom textile items does your family have, i.e., a quilt, or dresser scarves, or homemade hats. Most of us have these items, and many of us may have actual garments that

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Leader Notes

Welcome all members. Have them sit in a comfortable place. Have all supplies ready and the work area prepared. If members do not know each other, have them introduce themselves. Ask them to tell about a particular piece of wearable art that comes to mind. You begin.

(Think about items for sale at bazaars: painted sweatshirts, accessories, needlework, ethnic dress, etc.)
were made many years ago. If you do, take proper care of these so that they may continue to be family treasures. See lesson “Care and Storage of Heirlooms and Special Items,” Level IV, for heirloom care.

Today, we have a whole new generation of possibilities to choose from as we decide to express ourselves through what we wear and create for our homes. New chemicals and fabrics have expanded not only what is available for us to experiment with, but also how much time is required to achieve the results. As our time constraints tighten, we can purchase items that have been partially completed for us. We can buy prepackaged kits or kits that speed finishing an item after we have done the artwork.

**DIALOGUE FOR CRITICAL THINKING**

**Share:**
Q. How does creating items from textiles classify as an art?
A. It is an expression of human creativity, skill, application of skill/craft, and making of things that have form or beauty.

Q. What are some of the textile arts that have been handed down from one generation to the next?
A. Knitting, crochet, cross-stitch, embroidery, tatting, rug hooking, needlepoint, smocking, quilting, and many others, encourage members to think of as many as possible.

**Process:**
Q. What textile art forms do you have at home? Share their history with your group.

Q. Name some person in your community who you have admired for wearable art they have made or worn.

Q. Would you feel comfortable wearing this type of garment? Why or why not?

**Generalize:**
Q. If you would do this project again, what would you do differently?

Q. What is the next wearable art project you would like to attempt?

Q. What was the hardest part of this project?

**Apply:**
Q. How can you use these ideas to decorate your home space?

Q. How have fashion designers used wearable art in their designs?

**GOING FURTHER:**
- Visit a local arts and craft store for ideas on other wearable fabric art projects.
- Have members look for ideas for other projects and bring them to the next meeting.

210-Clothing & Textiles, Level II
• Take members to an art gallery that contains some textile exhibits and look for the special characteristics that might have caused it to be labeled art.
• Take members to a museum to look for historic textile products.
• Have members visit a local ethnic celebration, noting the fiber art that is worn or present for exhibition.
• Have members trace and record their family textile heirlooms.
• Have members plan for an item they would like to create for an heirloom from their time.
• Have members hold a textile art contest for the community.
• Have members display their creations at the fabric store, mall, or school.
• Have members start to collect a 9-inch square of fabric from all sewing projects for use in an art project later.

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WEARABLE FIBER ART
CLOTHING & TEXTILES, LEVEL II, CREATING WITH FABRICS AND FIBERS
Activity Sheet

Bicycle Back Pack

Materials Needed:
¾ yard sturdy 45-inch fabric (cotton duck, denim, corduroy or vinyl)
1 spool thread
14-inch zipper
2 yards—1 ¼ inch wide rickrack
1, 12-inch Decorative Strip Velcro® Quick Sewing Fastener

Use ½ inch seams throughout.
1. Cut back pack fabric according to measurements.
2. On outer bag, pin trim 2 inches from edge as shown. Miter corners. Stitch trim to bag 1 inch beyond fold line on each side (A).
3. On inner bag, cut along cutting line. Apply zipper to cutting line edges according to package instructions. Open zipper.
4. With right sides together, pin inner bag to outer bag. Stitch around outside. Trim seam and turn bag to right side. Press.
5. Pin straps to back as shown. Adjust length and position to suit you. Stitch in place (C).
6. To keep bag closed, hand or machine stitch Velcro Decorator Strip fastener to position for closing (D).
WEARABLE FIBER ART
CLOTHING & TEXTILES, LEVEL II, CREATING WITH FABRICS AND FIBERS
Activity Sheet

Happy Face Coin Purse

Materials Needed:
Felt in the following sizes:
5-inch circle (face back)
7-inch circle (face front)
Two quarter size circles (outer eyes)
Two tiny circles (inner eyes)
Spool of thread
7-inch zipper
14-inch length of yarn-type fringe
Fabric glue

1. Cut through 7-inch circle as shown. Shorten zipper
   by whip stitching over closed coil 3½ inches
   above bottom stop. Cut off excess zipper ½ inch
   below whipstitching as shown.

2. Apply zipper according to package directions
   along the two straight edges. Trim circle to 5 inch
   diameter and zipper seam allowances to ¼ inch.

3. Fold fringe in half to form double thickness of
   hair. Center on top of other circle and pin in place.
   Place circle with zipper over circle with fringe.
   Topstitch around circle ⅛ inch from the edge.

4. Glue eyes in place.
WEARABLE FIBER ART
CLOTHING & TEXTILES, LEVEL II, CREATING WITH FABRICS AND FIBERS
Activity Sheet

Fancy Laces

Materials
- Ribbon or fabric in the amount dictated by the chosen design (see below)
- 1-inch wide transparent tape
- Round wooden toothpick
- Wax paper scraps
- Tacky glue

Perfect Shoelace Tips (see illustration below)
1. Place one end of the shoelace (ribbon or fabric tube) on wax paper. Spread glue across ¾ inch of the end, then use the toothpick to roll the end tightly. Remove the toothpick, then secure the end by rolling a 1½-inch piece of tape around it. Clip the end. Repeat with the other ribbon ends.
2. Dip each ribbon end into the glue bottle up to the tape edge, until the taped tips and ends are smoothly covered with glue (A). Place them on waxed paper and allow them to dry overnight.

A Little Ribbon!
Shoelaces from sheer ribbons are the fastest version, and you’ll love the new striped, printed and solid varieties. Choose ⅜ to 1 ⅛-inch wide ribbons for the best results. Note: Avoid grosgrain and satin ribbons, as the former is too thick to make a nice tip, and the latter is too slippery to keep tied.
1. Cut two pieces of ribbon the necessary length (use existing shoelaces as a measuring guide), plus 2 inches, cutting the ends straight across.
2. Finish the ends as explained under Perfect Shoelace Tips.

Favorite Fabrics
Coordinate your shoelaces to special garments, using stripes, plaids or prints to add visual vitality to a simple shoe.
1. Cut two 1-inch wide bias fabric strips the necessary length (use existing shoe laces as a measure guide), plus 2 inches. Tip: Use nylon/Lycra-blend fabric cut on the straight grain for novel stretchy shoe laces.
2. Fold one fabric strip in half lengthwise, right sides together; stitch in a ¼-inch seam, creating a tube. Turn the tube right side out and cut the ends straight across. Repeat with the other fabric strip.
   Tip: Use a tube-turning tool, such as the Fasturn for faster results.
3. Finish the ends as explained under Perfect Shoelace Tips.
WEARABLE FIBER ART
CLOTHING & TEXTILES, LEVEL II, CREATING WITH FABRICS AND FIBERS
Activity Sheet

Fringes, Patches and Piping!

Neat Ideas
- Embellish denim garments with decorative “patches” (actually a form of cutwork): Cut out the desired shape from the denim, layer the denim over a contrasting fabric, such as lace, gingham, calico or metallic, so the contrast fabric peeks through the cutout, then stitch two rows of topstitching around the cutout at the desired width from the edge. The denim edges might fray a bit, but this will just enhance the look, and the topstitching will control the fraying.
- Add strips of washable synthetic leather or suede to jackets and jeans.
- Add a decorated denim pocket and epaulets to an old white shirt, or a jeweled denim yoke to a dated white T-shirt.
- Use striped chambrays or bright calicos for upper pockets, upper collar and under cuffs on a jeans jacket.
- Replace the collar and cuffs of a jeans jacket with a contrast or matching finished knit collar and cuffs.
- Apply by-the-yard metal zippers as piping.
- Embellish garments with fringes. Fringing a straight edge:
  1. Pull the threads to fringe the edge to the desired depth rather than trying to find the straight grain (difficult on twills).
  2. Topstitch ¼ inch above the fringe upper edge, using a contrasting heavier thread or matching all-purpose thread.
  3. Stitch again ¼ inch above the first row of stitching for more durability.
- Making a seam-insertion fringe trim: Fringe, as explained above, eliminating the topstitching and cutting the unfringed fabric with a 5/8 inch seam allowance.
- Making strip fringe: Strip fringe consists of narrow strips cut up to within ¼ inch of an anchor stitching line. It’s made on the bias to prevent fraying, and the bias causes the fringe to curl. Then follow these steps:
  1. Draw a line at the desired fringe depth; topstitch ¼ inch above the marked line.
  2. Cut the fringe strips ¾ inch wide or wider (to prevent fraying) to ¼ inch from the topstitching line. **Note:** Cut out seam-insertion strip fringe ⅛ inch above the topstitching (this will be the seam allowance); insert where desired.
Echoing combines applique, quilting and free-motion sewing.
1. Complete the applique
2. Place a piece of fleece under the fabric which had been appliqued.
3. Set the sewing machine as you would for machine monogramming.
   a. Remove the presser foot and replace with a darning spring or darning foot.
   b. Lower or cover the feed dogs.
   c. Loosen the top tension.
   d. Lower the presser bar before sewing.
4. Place the applique under the presser bar; bring the bobbin thread to the top of the fabric by turning the hand wheel one complete turn. Lock the stitch by sewing a few stitches; clip the thread.
5. Moving the fabric slowly, stitch around the applique. Sew at a consistent speed for even stitches. This stitching line can be any distance from the applique.
6. Trim the excess fleece from the back of the fabric where the stitching lines stop.
7. After you have completed the quilting, finish the garment.
What Members Will Learn . . .

ABOUT THE PROJECT:
• How to make a wardrobe plan and begin a wardrobe inventory
• How to use the “scarecrow” process
• How to estimate clothing costs

ABOUT THEMSELVES:
• Decision making skills used in making clothing choices and financial plans for their personal wardrobe
• Self-confidence in determining proper fit

Materials Needed:
• Wardrobe Inventory—Members should complete this inventory before they come to the meeting, so it should be assigned earlier. Complete a file card for each garment in your wardrobe. Include style name or sketch, color, a swatch, if possible, size, care instructions, date, and original cost. Number the cards in the top corner (e.g. T-shirt 1, T-shirt 2, jeans 1, jeans 2, etc.) While scarecrowing, (see directions on page 218 of this lesson) write down the combination (e.g. T-shirt 1, shirts 5, socks 10, shoes 2).
• Copies of Activity Sheets and Member Handout
• Current copies of magazines showing fashion trends

ACTIVITY TIME NEEDED: 60 MINUTES. THIS LESSON IS BEST DONE IN TWO OR THREE LESSONS.

ACTIVITY:

Building a workable wardrobe doesn’t just happen, it takes both planning and effort. The first step in wardrobe planning is to make a wardrobe inventory of the clothes and accessories you have. A well planned wardrobe contains enough variety to take you from weddings to picnics without special purchases. It can be challenging, fun, and rewarding if you do it right. If you choose not to plan, your wardrobe may become a constant, expensive frustration.

How many of you wanted to throw away all your clothes and start over as you were filling out your inventory? That sounds much simpler, but unfortunately this is not practical for most of us. Look at the inventory cards you completed. Did you have any items that you dislike and have not worn in a year? If so, get rid of them, or if it still fits, determine what you don’t like about it. Try not to make the same mistake again. Some questions to ask yourself include: is it poor design, wrong color, shoddy workmanship, too small or large, not right for my clothing personality?
Leave in your closet only the things that can and will be worn. Discard or give away anything that does not work for you. Group items together that can be mixed, such as blouses and slacks and skirts. Arrange these items by color families to help you coordinate outfits. Do this before the season arrives. Then, if you need to acquire basic items, they can be purchased early and filled in with extras at sale time.

This is good time to do two things; decide on a basic color for your wardrobe and “scarecrow” (will be explained later).

Look at the garments in your closet. Is there one basic color of most of the items? If so, this is a good choice as your wardrobe basic color. Make sure the color is a flattering choice for your skin and hair tones. If it is not or if you do not see a basic predominant color, then you need to choose one. Refer to the color lesson in Me & My Body. Pick one or two matching colors that are flattering on you. This will give you the most coordination from the fewest garments.

Next, do a little “scarecrowing.” Take out the garments and lay the complete outfit on the bed like you are making a scarecrow. Try to form total outfits. You can try blending and using accessories to mix and match together. If you find items that cannot be used—either plan a way to economically bring them into the wardrobe or get rid of them. As you begin this process, you will find that as you grow and gain new items, you can add a second or third basic color through the years and always look attractive. While you are young, it only takes about a year to change to different colors because you are growing so fast. As an adult, it will take about five years to completely change wardrobe colors as you replace worn out garments. This is why you should select colors that look good on you as an individual, regardless of fashion fads that change every season. If you can, ask someone from a clothing store to demonstrate how to mix and match a few garments into a complete wardrobe.

After these steps have been completed, you should have an idea of items you need. It is wise to scan the fashion magazines or stores to get the new color and style ideas. Be sure to consider your clothing style as well as flattering silhouettes for your unique body type.

Now you are ready to prepare your wardrobe plan.
1. You need to evaluate your clothing budget.
2. How much money do you have to spend? This will help you know how much you can afford and how you can prioritize the items. Use of a mail order catalog can help you estimate prices.
3. List your needs, considering the items that will give you the most mileage in combination with other clothing you own.
4. Then consider your wants.

As you shop for your planned wardrobe items, purchase as much as you can afford at one time. This approach will reduce the chance of buying items that do not coordinate. The piece-meal approach to shopping can be very expensive because garments from different dye lots do not match.
perfectly. Also, always launder or dry clean all of the matching garments at the same time so they wear the same. Look for and compare quality and styles.

It also is important to know what good fit means. Basically, good fit means that when a garment is viewed on someone it looks attractive from all sides, without pulls, gaps, or folds. It is essential that each and every item be tried on to determine the fit before purchasing.

One way to help determine proper fit is to wear the undergarments and shoes that you’ll be wearing with what you’re buying. To test for a good fit before you buy, try on clothes in front of a three-way mirror. Check the view from the back as well as the front. Test fit by sitting, walking, bending, stretching, or reaching. Remember to check for pocket size and fit. As you check the fit of outergarments, such as coats, remember that they will top several other layers of clothing. Allow for extra room and sleeve length.

To assist in determining fit, it is important that you know your measurements. Depending on the garment, different measurements may be needed. Boys and girls require different measurements. These should be taken at least every six months or when weight and/or body has varied its size or shape. A string or elastic tied around the waist and the base of the neck helps establish reference points for measuring. If you are buying clothes from a catalog, in a secondhand store, or at a garage sale where you can’t try on before buying, use your measurements as a guide. Use charts in catalogs to help you decide the correct size.

Sizes vary among manufacturers and pattern companies somewhat. It is important to know your measurements to ensure a proper fit.

Changing fashion trends and design ease (amount of fullness in a design) determine fit. Over time trends change from tightly to loosely fitted garments. By combining this ease with your ease of comfort allowance (to allow the body to move), you should be able to find a garment that fits. By following these guidelines you should have a workable wardrobe and one that is unique and pleasing to you.

**DIALOGUE FOR CRITICAL THINKING:**

**Share:**

Q. What is the first step in wardrobe planning?
A. Doing a wardrobe inventory.

Q. What is “scarecrowing?”
A. Taking the garments from your closet and laying them next to each other to form total outfits. This also includes blending and using accessories to mix and match together.

Q. Why is this technique useful to practice?
Leader Notes

Process:
Q. Why is it recommended to decide on one basic color for your wardrobe?
A. From one basic color you can add coordinating garments to allow your wardrobe to be better utilized with fewer items.

Q. How can you tell if a garment fits properly?
A. When a garment is viewed on someone it looks attractive without pulls, gaps, or folds from any side.

Q. How can scarecrowing be adopted to use for other decision-making opportunities at home?

Generalize:
Q. How can having a wardrobe plan influence your use of resources, e.g., money, current garments, time?
A. Resources can be used more effectively obtaining more clothing for the money to enhance current wardrobe items. Time can also be used more effectively by planning ahead rather than making spur-of-the-moment decisions which may not take into consideration current and future resources.

Q. How can this process be adapted to use for other decision making opportunities at home?
A. Answers will vary, i.e., household linens, furnishings, pottery and tableware, bed linens.

Apply:
Q. Think of other situations when taking an inventory is used.

GOING FURTHER:
• Have members scarecrow ensembles from their wardrobe before next meeting and bring back a plan of needed items.
• Discuss the amount families spend on clothing. Have them begin record keeping for their family if it is not done.
• Have members bring items they don’t like; have the group help them evaluate for fit, color etc., to see why they may choose not to wear them or what would make this item wearable.
• Take a field trip to a retail store to try on and evaluate items for fit.
• Discuss how coats fit differently from blouses.
• Aid members in measuring themselves.
• Have members volunteer to measure elderly residents to aide them in purchasing clothing.
• Try clothing on in the same size and tell how the same size of different items fit differently.
• Work with younger club members to help them mix and match clothing items.
• Collect unwanted clothing and give to a charity.
• Give members a variety of garments of different colors, then see how many combinations (make a list) they can put together applying what they have learned.

Optional: Give members crayons or colored pencils and copies of Member Handout, “Basic Wardrobe, Girls/Boys” to do this activity.
REFERENCES:
Fashion Magic, Wardrobe Planning, Linda Heaton, Clothing and Textiles Specialist, and Karen Hicks, 4-H Program Specialist, University of Kentucky, Cooperative Extension Service, Lexington, Kentucky
Teens Shopping Smart, Rose Marie Tondl, Extension Clothing Specialist, and Janet Wilson, Extension Consumer Education Specialist, Cooperative Extension Service, University of Nebraska, Institute of Agriculture and Natural Resources, Lincoln, Nebraska
Building a Workable Wardrobe, Betty Feather, Clothing and Textiles Specialist, University of Missouri-Columbia, Extension Division, College of Home Economics, Columbia, Missouri 65211
Clothing Leader Guide, Texas Agriculture Extension Service, Alma Fonseca and Ann Beard, Clothing and Textile Specialists, Texas A&M, College Station, Texas
Let’s Sew: A Beginner’s Sewing Guide, Nancy Zieman, Beaver Dam, Wisconsin, Nancy’s Notions, 1991

Author:
Developed by a team including, Carla Dill, Extension Assistant; Lucinda Schoenberger, Clothing Specialist; Mary Don Peterson, Clothing Specialist; Artyce Hedrick, Clothing Specialist, Cooperative Extension Service, Kansas State University

Reviewed by:
Steve Fisher, Extension Specialist, 4-H Youth Programs, Cooperative Extension Service, Kansas State University; and members of the Family Living Curriculum Development Committee and Clothing & Textiles Design Team
WARDROBE PLANNING BASICS I
CLOTHING & TEXTILES, LEVEL II, WARDROBE PLANNING
Member Handout

Hints to Achieve Proper Fit

• Adequate ease is needed for comfortable movement when sitting, walking, or bending. The garment does not bind or restrict. Strained, pulled, or popped seams and wrinkles mean the garment is too tight. Wrinkles point to the area that is too tight.
• Garment fit is in line with current fashion trends, fabric used, garment design and figure type. Bagginess, extra fabric folds, and uneven lengths mean the garment is too large.
• Crosswise grainlines, horizontal seams, and hems are parallel to the floor unless specifically designed to be at another angle. Uneven dipping, rising, or sloping means fitting problems.
• Lengthwise grainlines and vertical seams are at right angles to the floor unless they are specifically designed to be at a different angle. Sloping or twisting means a poor fit.

Evaluate these particular areas for fit:
• The neckline should lie flat against the body. A high collar lies smoothly against the neck; a scoop neck collar lies against the body at the seam line.
• Lapels roll against the garment without gapping or turning up.
• Natural shoulder seams lie directly over the top of the shoulder or approximately 1 inch behind the ear lobe. Shoulder seams are not usually noticeable from the front or back when viewed at eye level unless they are dropped or otherwise modified by garment styling.
• Natural armhole seams lie closely and evenly around the armhole. The underarm seam is usually about 1 inch below the armpit.
• Sleeves hang straight from the shoulder. Long sleeves end at the wrist bone.
• The waistline lies along the natural waistline, or if raised or lowered, along the midriff or hips.
• The zipper lies flat against the body.
• Buttonhole closings are smooth when the garment is buttoned.
• Darts point toward the curves of the body and end before reaching the fullest part of the body. One dart should point directly at the fullest part of the curve while several darts should be balanced around the curve.
• Pleats, vents, and tucks hang evenly and are closed when the wearer is standing still.
• The pant crotch follows the body curve evenly in both front and back. The pant seat fits without bagging or pulling.
• Pant legs fall straight to the floor with creases following the lengthwise grain in the center of each leg.
• Hems hang straight.
WARDROBE PLANNING BASICS I  
CLOTHING & TEXTILES, LEVEL II, WARDROBE PLANNING  
Activity Sheet

Spending Plan for Clothing

1. You need to evaluate your clothing budget.  
2. How much money do you have to spend? This will help you know how much you can afford and how you can prioritize the items. Use of a mail order catalog can help you estimate prices.  
3. List your needs, considering the items that will give you the most mileage in combination with other clothing you own.  
4. Then consider your wants.  

From the period from ___________ to ___________. Total amount of money available to spend for clothing and clothing services $________.

<table>
<thead>
<tr>
<th>Needs</th>
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<th>Estimated Costs</th>
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</thead>
<tbody>
<tr>
<td>Clothing Purchases (Including fabric and notions for home sewing)</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$</td>
<td></td>
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<td>$</td>
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<td>Total</td>
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<td></td>
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</table>

<table>
<thead>
<tr>
<th>Wants</th>
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<th>Estimated Costs</th>
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<tbody>
<tr>
<td>Clothing Purchases (Including fabric and notions for home sewing)</td>
<td>$</td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
<td>$</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$</td>
<td></td>
</tr>
</tbody>
</table>
Selecting the Correct Pattern Size

Patterns are like “road maps” for your projects. A pattern helps you turn a piece of fabric into a great finished project.

Before choosing a pattern, think about what you would like to sew. Would you like to make a simple top, or a pair of shorts or pants? Or do you want to sew a pillow, a tote bag, or some other kind of project? The choice is yours!

Next, look for a pattern you like in a pattern catalog. Pattern catalogs are divided into separate sections for different types of projects. Flip to the section that includes the kind of project you want.

For your first project, choose a simple pattern. Easy patterns have few pattern pieces and simple sewing steps. Most pattern books include special sections with patterns which are easy for beginners. Some also label patterns for beginners as “easy to sew” or “learn to sew.”

Let’s take a look at how a pattern helps you sew.

Selecting the Correct Pattern Size
Ask someone to help you take your body measurements so you can choose the correct pattern size. The measurements you will need are:
1. Bustline or chest
2. Waist
3. Hip
4. Height

Record your measurements in the chart below. Use this information to help you determine your pattern size.

<table>
<thead>
<tr>
<th>My Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bust/chest</td>
</tr>
<tr>
<td>Waist</td>
</tr>
<tr>
<td>Hip</td>
</tr>
<tr>
<td>Height</td>
</tr>
</tbody>
</table>

Compare your measurements to those in the size charts in the back of the pattern catalog. Choose the pattern type and size closest to your measurements. The following charts are examples of several pattern types.

If your measurements don’t exactly match those listed, use the chest or bust measurement for tops, dresses, or jackets. Use hip and waist measurements for pants or skirts.
Selecting the Correct Pattern Size, continued

Girls’ patterns are designed for the girl who has not yet begun to mature.

<table>
<thead>
<tr>
<th>Size</th>
<th>S</th>
<th>M</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bust</td>
<td>26</td>
<td>28½</td>
<td>30</td>
</tr>
<tr>
<td>Waist</td>
<td>23</td>
<td>24½</td>
<td>26½</td>
</tr>
<tr>
<td>Hip</td>
<td>27</td>
<td>30</td>
<td>32</td>
</tr>
<tr>
<td>Back Waist Length</td>
<td>11½</td>
<td>12</td>
<td>13½</td>
</tr>
<tr>
<td>Approx. Heights</td>
<td>50</td>
<td>52</td>
<td>56</td>
</tr>
</tbody>
</table>

Girls’ patterns are designed for the girl who has not yet begun to mature.

<table>
<thead>
<tr>
<th>Size</th>
<th>5/6</th>
<th>7/8</th>
<th>9/10</th>
<th>11/12</th>
<th>13/14</th>
<th>15/16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bust</td>
<td>28</td>
<td>29</td>
<td>30½</td>
<td>32</td>
<td>33½</td>
<td>35</td>
</tr>
<tr>
<td>Waist</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
</tr>
<tr>
<td>Hip</td>
<td>31</td>
<td>32</td>
<td>33½</td>
<td>35</td>
<td>36½</td>
<td>38</td>
</tr>
<tr>
<td>Back Waist Length</td>
<td>13½</td>
<td>14</td>
<td>15</td>
<td>15¼</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Young Junior/Teen

This size range is designed for the developing preteen and teen figures, about 5’1 to 5’3 inches without shoes.

<table>
<thead>
<tr>
<th>Size</th>
<th>7</th>
<th>8</th>
<th>10</th>
<th>12</th>
<th>14</th>
<th>16</th>
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</thead>
<tbody>
<tr>
<td>Chest</td>
<td>26</td>
<td>27</td>
<td>28</td>
<td>30</td>
<td>32</td>
<td>33½</td>
</tr>
<tr>
<td>Waist</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
</tr>
<tr>
<td>Hip</td>
<td>27</td>
<td>28</td>
<td>29½</td>
<td>31</td>
<td>32½</td>
<td>34</td>
</tr>
<tr>
<td>Neckband</td>
<td>11½</td>
<td>12</td>
<td>12½</td>
<td>13</td>
<td>13½</td>
<td>14</td>
</tr>
<tr>
<td>Height</td>
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<td>50</td>
<td>54</td>
<td>58</td>
<td>61</td>
<td>64</td>
</tr>
<tr>
<td>Sleeve</td>
<td>22½</td>
<td>23½</td>
<td>25</td>
<td>26½</td>
<td>29</td>
<td>30</td>
</tr>
</tbody>
</table>

Boys’/Teen Boys’ patterns are for boys who have not yet finished growing or attained full height.

<table>
<thead>
<tr>
<th>Size</th>
<th>XS</th>
<th>S</th>
<th>M</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bust</td>
<td>30½</td>
<td>31½</td>
<td>32½</td>
<td>34</td>
</tr>
<tr>
<td>Waist</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26½</td>
</tr>
<tr>
<td>Hip</td>
<td>32½</td>
<td>33½</td>
<td>34½</td>
<td>36</td>
</tr>
<tr>
<td>Back Waist Length</td>
<td>15½</td>
<td>15¼</td>
<td>16</td>
<td>16½</td>
</tr>
</tbody>
</table>

Misses’ patterns are designed for a well proportioned and developed figure about 5’5 to 5’6 inches without shoes.

<table>
<thead>
<tr>
<th>Size</th>
<th>XS</th>
<th>S</th>
<th>M</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bust</td>
<td>30½</td>
<td>31½</td>
<td>32½</td>
<td>34</td>
</tr>
<tr>
<td>Waist</td>
<td>23</td>
<td>24</td>
<td>25</td>
<td>26½</td>
</tr>
<tr>
<td>Hip</td>
<td>32½</td>
<td>33½</td>
<td>34½</td>
<td>36</td>
</tr>
<tr>
<td>Back Waist Length</td>
<td>15½</td>
<td>15¼</td>
<td>16</td>
<td>16½</td>
</tr>
</tbody>
</table>
Correctly Fitted Basic Garment
Incorrectly Fitted Basic Garments

- Broad upper back
- Broad lower hip
- Short midriff
- Long torso
- Flat buttocks
Incorrectly Fitted Basic Garments, continued

Small bust
Large bust
Large elbow
Single high hip

Broad, square shoulders
Narrow shoulders, broad lower back and large waist

Rounded upper back, sloped shoulders and large waist

Protruding abdomen, full front thigh and hyperextended calf
Basic Wardrobe, Girls
Basic Wardrobe, Boys
What Members Will Learn . . .

ABOUT THE PROJECT:
• Ways to recognize fads versus classic styles
• Ways to determine when it is wise to purchase a classic or a faddish style
• How to create an all season wardrobe

ABOUT THEMSELVES:
• To appreciate clothing choices as a life-long skill

Materials Needed:
• Copies of Activity Sheet and Member Handout
• Pictures from fashion magazines, catalogs, other visual guides to study (You may want to ask each member to bring one of the above with them.)
• This lesson may be held at a retail store, if so, the above pictures will not be needed.

ACTIVITY TIME NEEDED: 45 TO 60 MINUTES

ACTIVITY:
Do you wonder why everything looks right when the store puts a look together? Do store displays tend to show just the right clothes with just the right touch in accessories? Today, we are going to teach you some secrets about how to put together these creative looks. With practice, you will become as creative as the pros. Remember, people differ in the comfort level they have when it comes to wearing new fashions. Changes in fashion are one of the reasons we buy new clothing. Some people like to be the first to appear in a new style, others prefer to wait until they have seen it worn by others.

You might want to window shop or glance through magazines to get ideas of new color trends and design details that you might like to try. This costs you nothing (but time) and can save you future time by reducing your selections. You can also decide what things to sew in place of buying.

To spot fashion trends quickly, check only one detail at a time. If you are interested in trends in hem lengths, look only at hems in all the ads or window. Look again noting only shoulder widths and sleeve styles, then again looking at collars and necklines. You will have learned much more in the same amount of time as investigating all changes once very carefully.

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In addition, scan magazines and catalogs to determine costs as well as styles. To get an in-depth overview, read fashion magazine editorial features and fashion ads. Focus on pre-season issues in August and September, and again in January and February. Fashion magazines from a year ago seem to have more of the styles that we find in local stores today, so go to the library to check current midwest fashion trends in past magazines. Newspaper ads usually give sketches so colors are missing but prices are usually listed. Television programs show what others are wearing and can be a clue as to trends developing for the mass market. Don’t forget to look at friends and ask sales clerks about what is new.

Before we continue, let’s consider some language that is used by the clothing industry. The better you speak the language, the more you will understand what the industry is trying to tell you.

**Fashion**—Current mode of dress or clothing worn by a majority of the people.

**Style**—A particular or distinctive fashion. Example—boots are in fashion, but there are many styles of boots from which to choose.

**Classic**—A style that is so popular and so lasting that it becomes custom rather than fashion. Blue jeans can be considered a fashion classic. The dark business suit is another example.

**Fad**—A strikingly different fashion that is popular for a short period of time. It may last a few weeks or for a season, but a fad is soon forgotten. The tuxedo look for women, leg warmers, platform shoes, and concho belts have all come and gone as fads.

**Trend**—The general direction in which a particular change is moving. This may include special colors, fabrics, or shapes. Example—lapels may be getting narrower or trousers may be getting slimmer.

Fashions, styles, fads, and trends all have an influence on people’s clothing selections. Usually the people who make the most satisfactory use of their clothing money buy classic styles currently enjoying fashion popularity. These buyers follow trends in colors and fabrics but reserve their fad buying for small, accessory items. Their major clothing items remain wearable for longer periods.

The direction in which fashion moves is called a fashion trend or cycle. This cycle has four stages:

- **Introduction**—A fashion trend is usually introduced by a high fashion designer who creates an expensive one-of-a-kind original. The styles are often too extreme for the average person. Many laugh at the look.
- **Rise**—Designer looks are copied for mass production by high quality manufacturers. The style may be modified in order to lower prices, but the clothes are still expensive and somewhat extreme.

You might ask your group to list male fashion fads.
• Peak—Additional modifications have been made to lower the price or to make it less extreme for greater acceptance.
• Fall—Since everyone who wants it has it, it goes on sale in stores and sells well at reduced prices. Stores often continue to buy the style, but only at manufacturers’ promotional prices.

In the past, fashions repeated their popularity every 10 to 20 years, but the world is moving faster today and people are willing to change more quickly. We are exposed to international fashion influences immediately with modern media. So we find a much greater blend of fashions today than in the past, thus allowing you to dress in a more individual and unique manner.

How does this knowledge help you when it comes to building your wardrobe? Think of the money and time you spend on clothing as an investment. The wiser your decisions are, the more money you save. Let’s look at how each factor fits into your planning.

Both classics and fads have a place in your wardrobe. Knowing that you need an item to wear all year or perhaps two years should tell you to avoid a fad. Over the years, as certain fashions have become known for their classic styling, you can count on them to always be acceptable to wear. These garments are always fashionable when made in a quality fabric. Basic characteristics you generally find in classic garment or accessories include plain set-in sleeves, medium width collars or lapels, slightly flared skirts, and straight leg pants. Most of the preppy styles tend to be classic in nature.

A fad can be a bright accent color like fuchsia or teal, a certain accessory such as beads, a piece of clothing such as T-shirts with messages, or a look such as military. Since fads don’t last, don’t spend much money for them. Shop for these items at discount stores. These tend to mark an era—they remind us of a point in time in history (example—flapper style of the 1920s or oversized sag or grunge look of the early ’90s).

If you look at the fashion trends, consider the stage the trend is in. Any item that’s at the peak of the curve is one that you won’t be able to wear as long as one that is a rising trend. In other words, if you buy or sew a style that everyone is wearing now (except classics), chances are it’s at the peak and will be out of fashion before it’s worn out, or before you’ve saved enough for your next clothing investment.

To get the most value from an item, buy or sew it at the beginning of a cycle, wear it, and be ready to quit wearing it when it begins to fall from favor. This way you enjoy wearing fashionable styles and reap the economic benefits of longer wear.

It takes about a year and a half for individual fibers to go from the fiber producer to manufactured garments or accessories. The fabric is often dyed six months before you purchase the garment so fabrics and colors are

Leader Notes

Allow members to scan magazines (or the store racks) to look for some new fashion trends. Look for trends in colors, textures, and design. Ask the members to tell if they like the trends or not, and why.
already set for the coming season. This is also why you often cannot
match colors from one season to the next. Some of the colors and fabrics
that you desire just haven’t been produced, so some seasons there is little
available in appropriate styles and colors for some individuals. Fortu-
nately, the same individuals are rarely “left out” of the trend cycle for
more than a few seasons.

There are different types of fashion followers. Which type are you?
- Innovators or pioneers—they want to be first and don’t worry about
  price. They usually buy during the first five weeks of the season.
- Early majority—they buy trend merchandise when they need it, in
  proper season and at the regular prices. They usually buy during the
  second and third months after the merchandise is available.
- Majority—middle of the road/average acceptance of new styles.
  Sales are often used at the end of the early majority buying period to
draw the majority into the market.
- Late majority—they wait to buy until they see others with the
  merchandise. They will typically buy during the fourth and fifth
  month.
- Laggards—they are discount oriented and do not buy unless there is
  a break in price. They are not into wearing new looks or trend items.

As we get realistic, it is obvious most of us cannot afford to change our
complete wardrobe each season. A good rule is to aim for at least one-half
of your wardrobe to be classic styles in fabrics that can be worn nine to 10
months of the year.

We talked before about seasonless colors, but those colors need to be in
the form of seasonless fabrics that can go from warm to cold temperatures.
It makes sense that you should look for lightweight outfits that can be
worn individually or as layered components. The key to seasonless
dressing is to select outfits made of mediumweight fabrics that are perfect
for every season.

Year round fabric types include lightweight jerseys, twills, challis, gabardine,
and lightweight flannels made of wool, cotton, silk, or natural fibers
blended with synthetics.

Keeping cool or warm can be accomplished through clothing and accesso-
ries. Keep warm by layering your clothes; air trapped by the layers serves
as an insulator. Thick fabrics of dark, rich colors will add to your apparent
warmth. Clothes may be loosely fitted except at ankles, neck, and wrists
where a close fit will trap air.

Staying cool in summer is accomplished by wearing fewer layers of
clothes. Loose garments with large necklines and sleeves with loose/large
closures and a loose weave will allow air to pass through and encourage
evaporation to feel cool. Avoid extra necklaces, belts, scarves, and layers
of clothes. Light colors are a good choice. Open footwear, without socks
or hose, are coolest.
Pick a flattering neutral color for the majority of your classic styles. Then choose accent colors that blend, harmonize, or contrast to coordinate with the neutrals. Plan outfits with a variety of garments and styles (e.g., skirts, slacks and jackets). Choose various styles of blouses or shirts, sweaters, and underwear to adjust for your thermal comfort as the seasons change. When colors harmonize, you can mix and match for many different ensembles. But clothes should not be so sensible that they bore you to death. Allow some spark and surprise. This can be done with colorful accessories.

A plan for an adequate wardrobe is never finished. You change sizes, ideas, goals about clothing, or your lifestyle may change. Your lifestyle dictates how you expand or alter your basic plan.

**DIALOGUE FOR CRITICAL THINKING:**

**Share:**

Q. What is a fashion trend?
A. The general direction in which a particular change is moving. It may relate to special colors, fabrics, or shapes. Example—lapels may be getting narrower or trousers may be getting slimmer.

Q. What are the five types of fashion trend followers?
A. Innovators or pioneers, early majority, majority, late majority, laggards.

Q. What are some examples of seasonless fabrics?
A. Year round fabric types include lightweight jerseys, twills, challis, gabardine, and lightweight flannels made of wool, cotton, silk, or natural fibers blended with synthetics.

**Process:**

Q. Why is it important to build your wardrobe around classic clothing?
A. Saves money; saves time in shopping

Q. What classic clothing is similar for boys and girls? Which are specific to boys or girls?
A. See handout

**Generalize:**

Q. Now that you have learned some classic styles, what would be one or two classic garments that would add more flexibility to your wardrobe?
A. Answers will vary (classic blazer, straight leg pants, white button-down blouse).

Q. What would be a seasonless garment that you could add to your wardrobe? Why is it seasonless? What fiber is it made from?
A. Answers will vary (tailored cotton jersey, straight skirt, cotton gabardine pants, twill jacket of cotton or a lightweight wool).

Pass out the Classic Clothing Handout, as well as the sheet discussing seasonless wardrobe creation. If time remains, do the Trivia Pursuit page. If not, send it home for them to complete with their family. Take time to look for some classic styles available in the catalogs or store. Let the members experiment in matching outfits of classics, trends and fads. Offer feedback.
Apply:
Q. Have you ever made a “wrong decision” pertaining to a clothing purchase? What were the consequences of this decision? Would you make the same decision in a different situation? Why or why not?
A. Answers will vary.

GOING FURTHER:
• Have members list the differences in their daily life from two years before. Illustrate how clothing needs change accordingly.
• Collect pictures of additional clothing items to go with a garment to form an outfit that can be worn from season to season.
• Tour a fabric store and have the owner or manager discuss appropriate fabrics for year round wear.
• Identify new fashion trends and discuss how the trends relate and influence seasonless choices for you. Also, discuss how they are influenced by world events.
• Name items in your wardrobe that are seasonless.
• Have members host a fashion show of seasonless garments and how to use them.
• Have members talk to local store personnel about how fashion has changed the last five years.
• Visit a museum to study historic clothing and what influenced fashion at the different times.
• Name five world or national events, movies, or people that have influenced fashion change.
• Clip three pictures of classic items and three of fad items. Tell why each is a classic or fad.
• Discuss creating “Your Own Seasonless Wardrobe” and give students handouts to take home.
• Have a garage sale as a fund-raising project with no longer wearables or unwanted clothing and accessories.
REFERENCES:
Looking Great, Joanne Thurber Schultink, Extension Specialist, Clothing
and Textiles, Cooperative Extension Service, Michigan State University,
East Lansing, Michigan 48824
Clothing Leader Guide, Texas Agriculture Extension Service, Alma
Fonseca, Ann Beard, Clothing and Textile Specialists, Texas A&M,
College Station, Texas

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Reviewed by:
Steve Fisher, Extension Specialist, 4-H Youth Programs, Cooperative
Extension Service, Kansas State University; and members of the Family
Living Curriculum Development Committee and Clothing & Textiles
Design Team
Classic Clothing

Every wardrobe needs a backbone of a few basic garments. Building this basic wardrobe around one or two flattering color schemes allows you to mix and match for a variety of looks. Basics include:

- 2 jackets
- 1 pair of pants and 1 skirt (girls)
- 2 shirts
- 2 pair of pants (boys)

Basic colors are black, brown, navy, beige, camel, red and white. If the basics are not your best colors, select one of your becoming colors to go with a basic color.

Investing your money and time in classic styles is one of the best ways to build an investment wardrobe. When these pieces are carefully planned in terms of style, color, and fabric, you will get more than your money’s worth in wear, and at the same time build some identity and continuity into your look.

Classic clothes are no-nonsense, no-frills pieces that endure over the years. They are usually designed with simple, clean lines that put you in control and allow you to cope with continuing style change. Classics are the old reliables—always comfortable no matter what else is on the fashion forefront.

Classics give you more for your money when they are done in neutral colors. Also, the higher the quality of fabric used, the longer wearing they will be and the more stylish they will look. Linen and wool are examples of classic fabrics.

The following is a list of true classics that can be worn by older members and adults.

**Girls**
- shirtwaist dress (one or two piece)
- classic cardigan jacket (V or round neckline)
- standard and shawl collared blazer
- turtlenecks
- convertible collar and bow blouses
- menswear-style shirts
- crewneck and V-neck sweaters
- simple cardigan sweater
- fitted, straight-legged pant with fly front zipper
- straight skirt or straight legged pant
- dirndl, gathered skirt (40 to 50 inches around bottom)
- blue jeans

**Guys**
- Oxford cloth button-down shirt
- classic navy or camel blazer
- broadcloth dress shirt
- turtlenecks
- polo shirts
- crewneck and v-neck sweaters
- cardigan sweater
- grey wool all-season weight slacks
- khaki cotton pants
- blue jeans
- dark suit

Classic details include:

- set-in sleeves
- medium-width sleeves gathered into blouse cuffs or pleated into shirt cuffs
- hems just below the knee for skirts or dress, and to the top of the shoe on pants, with a slight break
- medium-width lapels and collars on jackets
- straight medium-width sleeves on jackets

- spread collar
- tie with Windsor knot
- pant cuffs
Create Your Own Seasonless Wardrobe

Follow these eight easy steps to mastering the art of seasonless dressing.

1. Experiment—Introduce your clothes to one another and you’ll be surprised how many different ensembles you can create that will easily live nine lives, up to 10 months annually.

2. Select basics—Your seasonless wardrobe should be built around “basics”—pieces that are easy to layer and never go out of style—including a straight skirt or pant, classic suit, comfortable pants, tailored shirt and blazer, and several sweaters.

3. Stock up on sweaters—Sweaters are one of the key elements to building a seasonless wardrobe because of their versatility and the mix-and-match options. However, for pre-teens and teens, you might want to substitute T-shirts or sweatshirts.

4. Choose brights—Select bright colors to keep your wardrobe vibrant no matter what the season. Whether high-noon or high-tech, the brightest color palette works year-round to help pieces move easily in and out of seasons.

5. Pick fabrics that are 100 percent natural—Your best bets are cottons or lightweight wools.

6. Include classics—Seasonless dressing works best when your closet is stocked with classics such as (for girls) men’s style shirts or a pleated skirt ensemble that endures from one season to the next and (for boys) straight-leg pants and a single breasted blazer, oxford cloth or polo shirts.

7. Add accessories—Accessories make the mood and create your fashion style. You can add them or change them to complement the season. Some of your best choices are; for girls, bangles, beads, pearls, earrings and medallions; and for boys, ties, belts, gold chains and bandanas.

8. Special effects—Don’t forget to include a special outfit for that special occasion—you never know when you may need it!

Adapted from Making It!, Fall 1985, by Texas 4-H Clothing Project Team, 1986
WARDROBE PLANNING BASICS II
CLOTHING & TEXTILES, LEVEL II, WARDROBE PLANNING
Activity Sheet

Fashion Trivial Pursuit

Do you know what cartwheels, cutaways and cocoons have in common? Each is the name of a fashion style that was popular in the past. Fashion history buffs can tell you that a cartwheel was a hairstyle, a cutaway was a coat, and a cocoon was a dress style.

How do you rank with the fashion experts? Can you correctly identify and classify fashions from the past? Here’s a fashion trivia test that’s been designed to help you find out.

Below are six fashion classifications that have been lettered “A-F” and a list of the names of 24 different fashion styles. Write the correct classification letter in the box next to each fashion item.

Fashion classifications:
A. hats
B. hairstyles
C. shirts/sweaters
D. jackets
E. skirts/pants
F. footwear

1. artichoke
2. balloon
3. bomber
4. polo
5. pillbox
6. mules
7. surfers
8. fanny
9. mushroom
10. pea
11. desert
12. corkscrew
13. boater
14. safari
15. spectator
16. beehive
17. lumber
18. poor boy
19. romeo
20. ducktail
21. clam digger
22. skullcap
23. tank
24. bubble
Answers to Fashion Trivial Pursuit

1. Artichoke (B) A short, layered hairstyle combed back from the face, from the 1960s.
2. Balloon (E) A full skirt tightly fitted at both the waistband and a hem band.
3. Bomber (D) An adaptation of an air force pilot’s jacket.
4. Polo (C) A classic square-collared, knit shirt.
5. Pillbox (A) Worn in the 1960s; a round, brimless hat that sits on top of the head.
6. Mules (F) Also known as scuffs of slides; slip-on, open backed shoes worn by women.
7. Surfers (E) Tight-fitting knee-length pants worn in the 1960s.
8. Fanny (C) A long pullover sweater with a side ribbed band at the buttocks.
9. Mushroom (A) 1960s hat with a large brim which turns downward at the face.
10. Pea (D) Adaptation of a sailor’s coat; hip-length, double breasted wool.
11. Desert (F) Another name for the chukka, a suede ankle-high boot with cushioned soles and eyelet laceings.
12. Corkscrew (B) Also called a Shirley Temple, tightly curled spirals of hair that hang freely.
13. Boater (A) A straw hat with a flat brim, low crown and ribbon band.
14. Safari (D) Also called a bush jacket; a single-breasted, khaki cotton, hip-length coat with large pockets and a matching fabric belt.
15. Spectator (F) Classic women’s shoe; a pump with contrasting colors or stitching in a distinct pattern on the toe and heel.
16. Beehive (B) A wide, high sweep of the hair into a dome or beehiver shape; popular in the 1950s and 1960s.
17. Lumber (D) A hip or waist-length wool plaid shirt jacket worn as outerwear.
18. Poor boy (C) A clingy, ribbed pullover with short or long sleeves and a turtleneck.
19. Romeo (F) A simple boot shaped slipper for men with elastic inserts on both sides.
20. Ducktail (B) A short hairstyle for men and women in the 1950s; the hair sweeps back from the forehead and comes to a point at the back of the neck.
21. Clam diggers (E) First popular in the 1950s, a full cut, mid-calf cuffed pant.
22. Skullcap (A) Also called a juliet, a small hat that sits on the top of the head and hugs the skull.
23. Tank (C) A scooped-neck, sleeveless shirt worn for casual wear or sports.
24. Bubble (E) or (B) Also known as the tulip skirt, a bubble has a fitted waist and hem band similar to the balloon skirt; also a popular ’60s hairstyle, short, layered and full round shape.
Hidden Costs of Garments/Advertising

Clothing & Textiles, Level II, Wardrobe Planning

What Members Will Learn . . .

ABOUT THE PROJECT:
- Steps involved in making and selling a garment
- How clothing prices are figured
- How shoplifting effects the price of garments
- Types of advertising

ABOUT THEMSELVES:
- How decision-making is affected by advertising

Materials Needed:
- Ads you have collected from newspapers, magazines, flyers, etc. (You may want to request each member to bring one to the meeting.)
- Copies of Activity Sheets
- Video, “How Clothing Is Made,” by The Learning Seed, 1990, 24 minutes (Area Extension Office should have copies)
- Television and VHS video player

ACTIVITY TIME NEEDED: 50 MINUTES

ACTIVITY:

The final price you see on a price tag is the result of many factors. Many people work with a garment before it arrives in the store for sale. Each person that comes into contact with it adds extra cost to the final price. (Ask members to name as many steps as they can.) You may have thought that the steps included: growing and preparing the fibers, cutting and sewing the garment, and sending out to retail. As you will find out today, the steps that a garment passes through are surprisingly numerous. All of these steps add to the final price you see in the store. In addition, we will talk about advertising—the different types of advertising and how to judge them to get the information you need to make the best buy for you.

The price of a garment is the result of both the wholesale cost and the retail cost. These costs are added together to produce the retail price of the item.

The wholesale costs include the cost of producing a dozen of the same garments. Things that are included in these costs are: price of fabric, trimmings, labor; price of making patterns, grading them to the sizes needed, and adding markings for construction; price to cut the fabric; price of construction; price of trucking or freight, and markup for overhead (rent for buildings, utilities, salaries, commissions, advertising and markdowns, shortages, theft and profits). The markup is usually double the price the retailers pay the wholesaler to purchase this item for retail sale.

Leader Notes

Have all members sit in a comfortable place as they arrive. Have each member introduce themselves if they do not know each other. If they bring a clothing ad, have them show the ad after their introduction. If not, have them tell what they selected for their most recent clothing purchase and why. You begin.

Show the video “How Clothing Is Made” to learn about all the steps necessary to produce a garment. Pass out copies of the Activity Sheet, “How Clothing is Made.” Members can complete it while watching the video, or if it is not shown, use this as a worksheet so members will learn the correct steps. Key in order of steps listed is 5, 7, 10, 13, 1, 4, 11, 3, 6, 8, 2, 12, 9.
Show the members the sample cost sheets. Have them discuss how each cost has to be passed on to the consumer. Remind them that businesses must make a profit to remain in business. Ask them to consider the inventory that retailers have left after each season. This amount is a loss to the retailer because they have purchased this item and not resold it. Point out that government plays a role in the price of garments by increasing taxes or tariffs (fees added to items coming from other countries). Remind members that the greater the profits of a company, the more that company can reinvest in new technology, offer better employee benefits, and be competitive with other companies.

The retail costs are those costs a retailer must pay while trying to resell this item. These charges are added to the price the retailer paid to purchase this item and the resulting total equals the garment price seen on the hang tag.

Buyers for retail stores place orders with many different manufacturers. The retail markup must cover both the store’s operating expenses and profit. Expenses included are: amount that items will be marked down, amount lost to theft, salaries for buyers, sales persons, clerical and stockers; administrative costs, employee benefits; advertising; rent; utilities, cleaning and security; and lastly, state and local taxes.

Usually retailers will average these expenses to determine markup per item. The difference in overhead cost may be the reason that the same or a similar garment may be sold at different prices from one store to another.

NOTE: Theft in retail stores is a serious problem. Not only do shoplifting and theft by employees create losses for the store, but also losses for consumers. Often, stores must hire security personnel, attach electronic devices to merchandise, or use special equipment to monitor the store. The cost of these measures adds to the overall price of merchandise sold in the store. Stores don’t like to take these precautions, but they must to protect their business.

If the members are interested, have them interview a store manager. Make an appointment ahead of time (or invite one to the meeting). Ask these questions.

1. What precautions does the store take to reduce shoplifting?
2. What precautions does the store take to reduce employee theft?
3. What is the age of most shoplifters?
4. What kinds of items do they take?
5. What does the store estimate as the average percent loss each year through theft?
6. When someone is caught shoplifting, what procedures are followed?
7. What are the penalties for shoplifting?

See Going Further for activity idea.

NOTE: One way stores are keeping costs down is through the use of computers. This action decreases the amount of manual labor needed. Costs to hire employees are most expensive. If more work can be done with fewer people, the output of work is greater (higher productivity) and this keeps costs down.

Now that we know stores must sell items to stay in business, we must consider how they convince us we need to buy our items from them. This step is done through advertising. Advertising is a way for companies to let us know what they have to sell. It is informative and tells us about styles, features, performance, and availability of products. Shopping would be more difficult if there weren’t advertisements. Advertisements provide an opportunity to study the market.

Advertisements can also manipulate (persuade you to do something you would not usually do). They can make suggestions about items that are not true, such as wearing a certain brand of clothes will make you popular or
ensure success in a job. Often, these ads will be repeated on television, radio, newspapers, or magazines. With repetition, other good (or better) products can be blocked from your decision-making process. Advertising is powerful, and it works. That is why you are constantly bombarded with it. Recent figures say that every year you are subjected to about $60 billion of sponsored information about products.

Responsible advertising should be favorable, not offensive, annoying, or misleading. No matter what the subject or theme, useful advertising should have these general characteristics:

- Informative
- Fair and accurate
- Tasteful to the majority of people
- Clear
- Valid

Emotional appeals that are frequently used in advertisements may be:

- Emotional security such as youthfulness, glamour, belonging, sex appeal, prestige, or status.
- Convenience and comfort such as ease of care, upkeep, or use.
- Safety and health such as best for yourself and those you love.
- Financial gain such as wise buys, bargains, or shrewd investments.

Beware of faulty ads. Here are some common types:

- Bait and switch—when the advertised bargain isn’t stocked and an expensive alternative is suggested.
- Misleading savings—when the advertised discount price is compared to an inflated or false price to look good.
- Failure to state facts—when what you need to know to make a wise decision is not given.
- Free gimmicks—when you are encouraged to purchase to “get one free” or “get something else free.”
- Jumping on the band wagon—when it is a “hot” item and it may be gone if you don’t get it now.
- Puffery—when you are persuaded by extreme claims or flattery.

If you fall victim to one of these misleading claims, it is your duty to make a complaint. That way you can help end deceptive advertising practices. For local complaints not handled to your satisfaction by the retailer, contact the local office of the Better Business Bureau. If further action is required, contact your state Attorney General or the Federal Trade Commission. If the ad is a national one, contact the Council of Better Business Bureaus. (Get the address from your local library or local BBB.) Remember the saying “buyer beware” is meant for your clothing investment as well as other investments you will make.
Leader Notes

Federal Trade Commission
6th & Pennsylvania
Washington, DC 20580
(202) 326-2222

Kansas Attorney General
Judicial Center, 2nd Floor
Topeka, KS 66612-1597
(785) 296-2215

Mass Media Bureau, FCC
Complaints & Investigations
2025 M. St., N.W., Room 8210
(202) 632-7048

Council of Better Business Bureau
1515 Wilson Blvd.
Arlington, VA 22209
(703) 276-0100

Better Business Bureaus of Kansas
501 Jefferson, Suite 24
Topeka, KS 66607
(785) 232-0455
OR
300 Kaufman Bldg.
Wichita, KS 67202
(316) 263-3146

DIALOGUE FOR CRITICAL THINKING:

Share:
Q. Name some of the steps that describe how clothing is made.

Q. Name three things that add to the retail cost of a garment.
A. Amount that it will be marked down; amount lost to theft; salaries for: buyers, sales persons, clerical and stockers; administrative costs; employee benefits; advertising; rent; utilities, cleaning, and security; state and local taxes; profit.

Q. Describe a favorite ad you have seen. Why did you like it?

Process:
Q. Look at your ads and tell me words that are informative.
A. Answers will vary.

Q. Look at your ads and tell me words that are promotional.
A. Answers will vary.

Q. How do you feel about advertising?
Generalize:
Q. How might you help reduce shoplifting in retail stores?
A. Begin a peer education program, make a display for school or store. Members may offer suggestions.

Q. Now that you are aware of some of the techniques that are used to influence people to buy clothing, think about some that are most effective with teenagers. Why do they work? Do you think you will still be so impressed by them?
A. Answers will vary, i.e., teen idols use product, sexy, sophisticated, popularity, etc.

Apply:
Q. If you are aware of a shoplifter, what choices do you have? What are the consequences of the choices for you? For the shoplifter? The store? Other shoppers? What if the shoplifter is your friend? What are your responsibilities as a consumer? Ethically? Are there personal safety issues that should be mentioned?
A. Answers will vary. You can tell store personnel.

GOING FURTHER:
• Have members write a script for an advertisement for a piece of clothing.
• Have members scan several types of magazines (especially teen versus adult). Have them list the number of pages in each, the number of pages of advertisements, and the number of pages of clothing advertisements.
• Have members visit a store that uses a computerized ordering system. Get answers to these questions.
  1. How does the computer read the tag information?
  2. What do the numbers or codes on the tags mean?
  3. Where does the computer transmit the information?
  4. How was inventory control done before computer scanning of tags?
  5. How many units per week of a particular item of clothing would have to be sold for it to be considered a “good seller”?
  6. Who does the reordering or decides what needs to be reordered?
  7. Where is the warehouse that sends replacement merchandise?
  8. Is it difficult to learn to operate point of sale computers? How much training do employees need to use one?
  9. How costly is a computer system for a retail store?
• Have a group tour an advertising department of a newspaper, radio, or television station. Ask how important advertising is to their business and how much it costs?
• Visit the library to familiarize members with how to look up consumer information.
• Ask members to watch television for one hour (Saturday morning is good). Have them keep track of how many commercials appear, list the products and comments about the quality, quantity and price. Also comment about special effects and emotional appeal. Bring to next meeting to discuss.
Leader Notes

- Have members begin a product information file for their families. Include information and instruction manuals for the appliances their families own, or volunteer to do this for elderly residents.
- Have members plan a business. Help them to consider all costs from overhead to profit.
- Have members practice writing letters of complaint about a product.
- Construct and display an exhibit of various magazine clothing or accessory advertisements.

REFERENCES:
The Super Shopper Connection Joyce E. Jones, Doris “Katey” Walker, and A. Lois Redman, Extension Specialists, Cooperative Extension Service, Kansas State University, Manhattan, Kansas 66506
Time Out For Clothing, Joyce Ann Smith, Extension Clothing Specialist, Kathy Jelley, Carla Menelle, and Jill Nolan, Extension Home Economists, Ohio Cooperative Extension Service, Ohio State University, Columbus, Ohio 75733
Clothing Leader Guide, Texas Agriculture Extension Service, Alma Fonseca and Ann Beard, Clothing and Textile Specialists, Texas A&M, College Station, Texas
Buying Your Clothes, Clothing 2, Marjorie Mead, Extension Textile and Clothing Specialist, and Michelle Morganosky, Assistant Professor, University of Illinois at Urbana-Champaign, Cooperative Extension Service, Champaign, Illinois
How Clothing Is Made, 24 minute VHS video, The Learning Seed, 330 Telser Road, Lake Zurich, Illinois 60047, $89.00

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How Clothing is Made

Steps Necessary to Produce a Garment:

1. Grade Patterns
2. Spread Fabric
3. Sew Garment
4. Ship Garment
5. Design
6. Check for Fit, Appearance, Line
7. Inspection of Garment
8. First Sample
9. Marker
10. Cut
11. Pattern
12. Press Garment
13. Bundle Pieces
HIDDEN COSTS OF GARMENTS/ADVERTISING
CLOTHING & TEXTILES, LEVEL II, WARDROBE PLANNING
Activity Sheet

Word Search

C B Z B A J Y A E S N L C O L A N W L M Y I R
E T A U A T H E B X K B J C D B S H I R T C H
A R M I G R P Q P G A J A R S Z D X A O T I B
R Y F A W E G M I R S H T E K C A J M G L S A
O I L V S R E A B F I R L B A N U V O K C S I
C T R O L O C D I D T C Z D D T C S R P S A J
X O E E Y T K T M N R M D M C E Z T V I G L C
F N M Q N S D I L A S G A F Z C T I C L Q C A
N G H I X G M S T E L T U O Y R O T C A F U R
S C T R J P R O M Y C H T P B E J C S Y U V E
B M L H U I X Z F H H I S I U D L H R A T U L
Y T I L A U Q S J R G N R O I I Q E T W P D A
L A S R D A N E E L K N I R W T S D Q A M G B
D E B O R D R A W V M H S R K W P M U Y R J E
R G B P E Q A B U T A V R W M L G H I A X V L
B N D C P U Q D E N E H T G N E L Z L I E W S

1. classic
2. care labels
3. credit
4. quality
5. jacket
6. bargains
7. wardrobe
8. try it on
9. shirt
10. impulse
11. sit
12. wrinkle
13. color
14. stitched
15. lengthened
16. layaway
17. mix and match
18. store
19. factory outlets
HIDDEN COSTS OF GARMENTS/ADVERTISING
CLOTHING & TEXTILES, LEVEL II, WARDROBE PLANNING
Activity Sheet, Leader’s Key

Word Search

C B Z B A J Y A E S N L C O L A N W L M Y I R
E T A U A T H E B X K B J C D B S H I R T C H
A R M I G R P Q P G A J A R S Z D X A O T I B
R Y F A W E G M I R S H T E K C A J M G L S A
O I L V S R E A B F I R L B A N U V O K C S I
C T R O L O C D I D T C Z D D T C S R P S A J
X O E E Y T K T M N R M D M C E Z T V I G L C
F N M Q N S D I L A S G A F Z C T I C L Q C A
N G H I X G M S T E L T U O Y R O T C A F U R
S C T R J P R O M Y C H T P B E J C S Y U V E
B M L H U I X Z F H H I S I U D L H R A T U L
Y T I L A U Q S J R G N R O I I Q E T W P D A
L A S R D A N E E L K N I R W T S D Q A M G B
D E B O R D R A W V M H S R K W P M U Y R J E
R G B P E Q A B U T A V R W M L G H I A X V L
B N D C P U Q D E N E H T G N E L Z L I E W S

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2. care labels
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7. wardrobe
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12. wrinkle
13. color
14. stitched
15. lengthened
16. layaway
17. mix and match
18. store
19. factory outlets
Buying for Yourself and Others
Clothing & Textiles, Level II, Wardrobe Planning

What Members Will Learn . . .

ABOUT THE PROJECT:
• How clothing stores are different
• Retail terms used to describe categories of items
• Identify types of sales

ABOUT THEMSELVES:
• How to improve consumer making decision skills with increased knowledge
• Personal responsibility for planning to make wise consumer choices

MATERIALS NEEDED:
• Copies of Activity Sheet
• Video “Wardrobe Management: Dress Well for Less,” 21 minutes, by Learning Seed (if you do not have access to the video, main points are discussed below)
• Calculators, pencils, and paper
• Television and 1⁄2-inch VHS video player

ACTIVITY TIME NEEDED: 45 MINUTES

ACTIVITY:
We have talked about buying for others in the past (Wardrobe Planning Level I, “Giving and Receiving”). You have developed a system to give yourself ideas about things others might like. We briefly discussed considering how much you have to spend for gifts. Today, we will talk about where to shop and when to shop. This is more important than you might think. These two factors can greatly influence the quality and quantity of items your dollars will purchase.

We will focus today on clothing, but remember in retail some of these same principals apply on other non-clothing items.

There are many different types of clothing stores. No one type of store is right for everyone. Understanding the differences between kinds of stores, and the characteristics of each, will help you to make better buying decisions.

When thinking about any store, you should consider several things. First of all, ask yourself about the price of the store’s merchandise. Do the prices tend to be high, medium, or low? Price is not the only thing to consider.

Leader Notes
Welcome members. Have them sit in a comfortable place. Have the members introduce themselves and identify a person they will need to purchase an item for (also name the item if they have decided).
Think about selection. How many different categories of clothing are carried? How good is the selection in the category for which you are shopping? How good is their selection of sizes that you need?

In addition, what services do they provide that you want or need? Examples of services are charge accounts, layaway, gift wrapping, delivery and alterations. Are these services free or is there a charge for them? One of the most important services to ask about (especially if buying for someone else) is the store’s return policy. Can merchandise be returned, and under what conditions? Will you need the sales receipt? (It is always a good idea to keep it.) If you return a purchase, will the store give a cash refund or make an exchange for other merchandise?

Here are some differences between several kinds of stores.

**Department Stores**—Department stores usually offer clothing in the medium to higher price ranges. The selection is very wide; shoes to sportswear to underwear. In addition, a variety of colors, sizes, styles and brands are available. Department stores offer many services, but may charge for some of them. They usually have liberal return policies, but be sure to ask.

**Specialty Stores**—Specialty stores sell only one type of clothing (shoes or jeans) or clothes for a particular group (men, children, women). The prices in specialty stores frequently range from medium to high. The range of clothing categories is narrower than that in department stores; however, the selection in terms of color, sizes, styles and brands is usually quite large. Some specialty stores offer services, such as free gift wrapping. Inquire about return policies, they tend to be less liberal than department stores.

**Mass Merchandisers**—Mass merchandisers have many stores both in the United States and in other countries. They sell to large numbers of people, which is why they are called mass merchandisers. Such stores are similar to department stores, but their prices tend to be in the medium range. They carry fewer brand names than department stores. Their policies on services and returns tend to apply nationally, however, so this may be a good place to shop for gifts for out-of-town friends and relatives.

**Discount Stores**—Discount stores appeal to the customer on the basis of price. Their prices are usually lower than those of either the department store or the mass merchandiser. Each store carries a wide range of goods and usually offers many color and size choices. Discount stores offer fewer services than do department stores, specialty stores, or mass merchandisers. Examples include Kmart, Wal-Mart, and Target.

**Off-Price Stores**—Off-price stores are a fairly new kind of clothing store. They carry many of the same brands that department stores carry, but their prices are lower. The selection can be limited, especially in terms of size and color choices because many off-price stores obtain their merchandise from manufacturers’ canceled orders, overruns, and end of season close-
outs. Off-price stores usually offer few services and have strict return policies. Examples include Marshall’s, Hit or Miss, and T.J. Maxx.

Factory Outlets—Factory outlets are owned and operated by clothing manufacturers. Instead of selling their close-outs, canceled orders, and discounted merchandise to off-price stores, manufacturers open their own retail stores. These stores frequently offer only one brand of merchandise and the overall selection is usually limited. However, prices can be very low for good quality merchandise. Services are nonexistent or very limited and returns may not be allowed. Examples include Bass Shoe Outlet and Burlington Coat Factory Outlet.

Secondhand Stores—Secondhand stores have become more popular recently. Look in the yellow pages of your telephone directory under “secondhand,” “thrift shops,” or “resale shops.” You may be surprised to find out how many exist. They offer low prices to their customers. The selection may be very limited in terms of sizes, colors, styles, and brands. You may be able to find unique or like-new clothing here. Services are nonexistent and returns not allowed. Examples of national secondhand stores are those run by Goodwill or the Salvation Army.

Home Parties—A person invites people into their home to sell and try on clothing and then place orders.

Flea Markets—Flea Markets are generally held in shopping malls, parking lots, or open fields. They offer consumers a variety of items varying greatly in quality. Watch for advertisements in your area. It is important to arrive early to find the best buys. Sellers may bargain over prices for additional savings. No services or exchanges are permitted.

Auctions—Auctions can be a shopper’s paradise, inexpensive entertainment, or a costly, sobering adventure. They offer a variety of goods, from jewelry and furs to general merchandise to useless junk. Although the types of auctions vary greatly, the terms of the auction are the same—cash and carry and no returns. Since the goods are sold “as is” the burden of making a wise purchase falls on the buyer. Arrive in time to preview the items. As you examine them, write down any interesting articles and note any damages.

Garage Sales—Garage sales have become a hobby for many smart shoppers. The night before, study the ads in your local paper. Careful planning can save you time and gasoline. Read each description carefully for the day, time, place and type of merchandise. Obtain sufficient cash beforehand. Do not hesitate to bargain. Offer what you feel is a fair price. The seller has the option of accepting, refusing, or making a counter offer.

There are two popular ways the media have gotten into the shopping business as well.

Mail Order Catalogs—Mail order catalogs allow you to shop at home. A retail store may or may not also be available to sell carryout merchandise.
These are rapidly increasing in popularity. Keep records of the shipping costs and your order to avoid problems with the company or to settle disputes. Never send cash through the mail. Use of a check, money order, or charge card are better alternatives. Depending on the company, some extra services are available and returns are usually allowed. Policies are printed in the ordering information for you to read.

*Computers and Electronic Shopping*—Home shopping networks currently are doing big business. They offer a wide variety of goods but only one item at a time is displayed. Pay attention to return information, and if it is not given, ask before placing your order. This marketing method seems to work because the pressure of an immediate decision is needed. Quality is hard to check and services and returns may pose problems.

In some cities, electronic systems housed within stores include some or all of the components to allow you to view items and order by computer. This high tech equipment will become more widely distributed in the future.

Some retailing terms you need to know are:

- **Regular**—Clothing that meets the manufacturer’s standards and are sold at regular price or special sale prices.
- **Samples**—Clothing that may have been used by sales representatives. They typically come in small sizes and may be shopworn or soiled.
- **Irregulars**—Clothing that has an imperfection in color, size, or fabric construction. These will not necessarily affect the wear of the garment and may or may not be visible. But make sure you know why the item has been labeled “irregular” before you buy it.
- **Seconds**—Clothing with a visible tear, run, color loss, or other imperfection.
- **Surplus**—Clothing that is generally “left-over,” either because they didn’t sell well or the manufacturer overestimated the number to make. Clothing may be end of season or of odd sizes.
- **Mill-Ends**—Fabric that is regular first quality fabric left on the end of the bolt. They usually come in short lengths and sell for a fraction of the cost. Be sure to check for flaws or wrinkles that may not press out.

Next, we will discuss sale bargains. How many times have you seen those words in a store window or advertisement? When is a sale really a sale?

Here are explanations of some common sales:

- **Promotional Sales**—These sales promote certain items. They are offered on regularly priced merchandise for a short period of time. They are often offered on well known brands and held at the beginning of the season. These sales offer the customer an unusual value. It is smart to take advantage of these sales if the item is one you already planned to purchase.

- **Special Purchase Sales**—These sales represent special offers by manufacturers to stores. The store has purchased the merchandise at a lower price because the manufacturer has excess inventory. These special purchases
usually remain at the sale price until all are sold. These may be good buys, but inspect carefully.

Clearance Sales—These sales are designed to move merchandise that is fast becoming out of season or out of style. As the selling seasons change, stores will put already stocked items on sale to make room for incoming merchandise. The two major clearance sale months are January and July. Often, it is not uncommon to find clearance sales on merchandise that are occurring during the peak wearing season. If you purchase during these sales, select styles that will not go out of fashion quickly. This way you can wear it now and next year.

Percent-off Sale—These sales are offered to generate store traffic. They may be a storewide sale, on individual items, or in a general department. Frequently, these sales are for only a limited period of time. Many stores hold storewide percent-off sales on a regular basis once or twice a year for one day. If a store where you like to shop does this, you can postpone purchasing an item until the day of the sale. This is a good way to save money on your clothing, provided you are able to wait until the sale to get what you need.

Anniversary or Founder’s Day Sales—These sales are held to commemorate the founding of the store. Some regular stock is reduced in price; some may be specially purchased for the sale and will not be carried in regular stock. They may be a good way to save some money if it is on an item you would purchase anyway.

Seasonal Sales—These sales are repeated each year, such as back-to-school sales. Good buys can be made at these sales, and it is good to pay attention to when they are and plan purchases around them if possible.

Stimulative Sales—These are offered to boost sales during slow periods. Sales like one-cent sales, two-for-the-price-of-one, buy one, get one free. Beware of these offers. They may be artificial and offer little savings.

Can you get a bargain at a sale? A good buy is anything that meets your needs at a price you want to pay. If you can get what you want for less money than usual, or if you can get better quality for the same money, you have a bargain. But just because you saved money on purchasing an item doesn’t make it a bargain. It is never a bargain if you cannot use it. Some items in your closet which you seldom wear seemed like a bargain when they were purchased but ended up as “closet monsters” taking up space.

You may want to stop here and help members calculate percent off on prices. This will sharpen their math skills.

Pass out the cards in the “I’ll Buy That” game. Explain the game rules and allow members to play. This will require some thinking skills, so after a period of time let members help each other.
DIALOGUE FOR CRITICAL THINKING:

Share:
Q. Name types of sales that happen regularly each year?
A. Seasonal Sales, Anniversary or Founder’s Day Sales.

Q. Describe the most recent clothing or accessory item you or your family purchased on sale.
A. Answers will vary.

Q. What are the two ways to shop at home?
A. Mail order catalogs, home shopping networks and home parties.

Process:
Q. What was one of the most important things you learned from this lesson? Why?

Q. What type of store is your favorite to shop? Why?

Q. What did you enjoy the most about playing “I’ll Buy That?” What did you like the least? Why?

Generalize:
Q. Where do you think you would like to shop for a gift you plan to buy? When do you think you will make that purchase?
A. Answers will vary.

Q. In the future, which type of store or method of shopping do you think will be the most common? Why?
A. Answers will vary. Catalogs because people (especially parents who also work outside the home) are so busy, discount because more people have to watch their money, a mall because of wider choices, department store because people want better and more service.

Q. If you need to shop for a gift, what types of store or other sources will you consider before you purchase? What considerations will affect your purchasing location?
A. Answers will vary.

Apply:
Q. When you have to purchase a Christmas gift for which you can plan in advance, how will your choices differ from those for a gift you need immediately for an event you just learned about?
A. Answers will vary, but may include differences in time allowed, opportunity to look for various sources, compare prices and quality, and take advantage of seasonal sales.
GOING FURTHER:

• Take a field trip to compare three different types of stores.
• Accumulate mail order catalogs and compare differences.
• Compare regular, surplus, irregular, samples, and seconds of items. Have members tell their observations.
• Make a list of the various types of clothing outlets in your county or shopping area.
• Interview local store owner/manager about sales they offer. Discuss at next meeting. Or invite a few to come to the meeting as a panel to discuss when and why of sales.
• Go to the historical museum and research sales of years ago: How do prices compare? How were things marketed? What audience was the sale geared to?
• Develop a skit on the pros and cons of a typical sale. Present it to other peer groups.
• Talk to local clothing stores to see if and how you can assist with or observe an upcoming sale.

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Wardrobe Management: Dress Well for Less (to defeat the closet monsters!), 21 min VHS videotape, Learning Seed, $89, 1-800-634-4941

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BUYING FOR YOURSELF AND OTHERS  
CLOTHING & TEXTILES, LEVEL II, WARDROBE PLANNING  
Activity Sheet

I’ll Buy That!

To play:
To make cards, photocopy the cards on the following page and mount them on cardboard or construction paper. For more than three players, add more cards using your own statements. Each game needs a person to act as leader to check the answers.

1. Shuffle the deck and deal four cards to each player. Place the remainder of the deck face down in the center of the table. The player to the left of the dealer begins, playing clockwise.

2. On each turn, a player selects one card from the deck. The player places the card, or any other card from his/her hand, face up on the table, reads the statement on the card aloud, and responds to it with either “I'll buy that!” (meaning the statement is true), or “I don't buy that!” (meaning the statement is false). Players have one minute to answer. (They may use scrap paper and a pencil.) The answer player checks the answer. If correct, the player leaves the card in front of him/her and may either play a second card from his/her hand in the same way or may challenge another player. If incorrect, the player places the card in the discard pile, and selects two more cards from the deck to add to his/her hand. When needed, shuffle the discarded cards into the deck.

To challenge, a player selects a card from his/her hand and places it face up in front of another player. If the challenged player answers correctly, the card is left face up in front of him/her. If the challenged player answers incorrectly, the card now becomes a part of the challenged player’s hand.

When any player discards all of his/her cards and goes out, the game is over. The person with the greatest number of correctly answered cards face up in front of him/her wins the game.
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| **BUYING FOR YOURSELF AND OTHERS**  
CLOTHING & TEXTILES, LEVEL II, WARDROBE PLANNING  
**Activity Sheet** | **I’ll Buy That! continued** |   |   |
| 1. | A 6.4 ounce tube of toothpaste for $1.99 is a better buy than two 3.2 ounce tubes for $1.09 each. | 2. | A curling wand for $18.99 with a $3 rebate is a better buy than the same wand for $14.99. |
| 3. | Three disposable shavers for $1 are a better buy than three for 29 cents each. | 4. | A three-yard package of ribbon for 89 cents is a better buy than three yards at 25 cents. |
| 5. | A three-ounce sample size of shampoo for 39 cents is a better buy than 12 ounces for $1.99. | 6. | Two swimsuits for $40 are a better buy than one for $29.99 and the second one for 1 cent. |
| 7. | Pantyhose at $1.50 a pair is a better buy than three pairs for $5. | 8. | Two sweaters at $25 each are a better buy than two sweaters for $40. |
| 9. | Two shirts for $30 are a better buy than two shirts at $17 each. | 10. | Four plastic combs for $2 are a better buy than four for 59 cents each. |
| 11. | A bar of deodorant soap for 35 cents is a better buy than 4 bars for $1.00. | 12. | Earrings with changeable parts to make 3 different looks are a better buy for $10 than 3 separate pairs for $5 each. |
| 13. | Two pairs of jeans at $17 each are a better buy than two pairs for $30. | 14. | Two lipsticks for $1.99 each are a better buy than one for $2.39 and one free. |
| 15. | A down jacket for $89 is a better buy than the same jacket for $100 with 5 percent off. | 16. | Two blouses for $19.99 each are a better buy than one for $39.99 with the second for 1 cent. |
| 17. | A six-ounce bottle of cologne for $9.99 is a better buy than two ounces for $3.99. | 18. | Two bow ties for $3 each are a better buy than two for $6.99. |
| 19. | Two pairs of shoes for $23.99 each are a better buy than one pair for $30 and one pair free. | 20. | Coats at $35 each are a better buy than one for $50 and the second one for $5.00. |
| 21. | Belts at $3.50 each are a better buy than three belts for $15. | 22. | A $23 blow dryer with a $5 rebate is a better buy than a $19 blow dryer. |
| 23. | Six pair of socks for $1.98 are a better buy than for 50 cents a pair. | 24. | Two skirts for $50 are a better buy than three skirts for $69.99. |
| 25. | Two lip glosses for $1 are a better buy than two at 49 cents each. |   |   |