# Clothing and Textiles Project Area Guide Beginner 

## Clothing and Textiles Project Area STEM Activities

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## Activity 1: Use Color in Clothing to Look Your Best

## Selecting What's Right for Me

Project Outcome: Identify colors that coordinate when buying garments.
Project Indicator: Completing the Wardrobe Inventory, likes and needs and coordinating pieces in wardrobe.

The human sense of sight is very powerful. So it is not surprising that color is very important in our decision in what we want to wear.

Color is often the first element you notice. Color is very important to the response each of us feels when we see any item, such as a garment or a room. We can only see color when there is light (that's why everything looks black at night).
It is important when we are selecting what to wear that we put pieces together to create pleasing color co- ordination.
Some colors go better together than others. To discover how to identify colors that coordinate well, we must first know a little about color.

## Color Theory

A color (hue) can look different depending on its value and intensity. So what does this mean?
$H u e$ is the color name - examples include red, blue, yellow, violet and so on.
Value is the lightness or darkness of a color. A light value is called a "tint" and is created by adding white to a color. An example is pink, which is a tint of red. A dark value is called a "shade" and is created by adding black to a color. An example is burgundy, which is a shade of red.

Intensity is the brightness or dullness of a color. Some hues are more intense than
 others. To lessen the brightness of a color, you add some of the complement color.


To understand color better and how to put colors together, let's examine the color wheel.

The wheel begins with three basic hues (red, yellow, blue). All other colors are made from these. These are called the PRIMARYCOLORS.

Next, the three basic (primary) hues are mixed to form the $S E C O N D A R Y$ hues.
Red + Blue $=$ Violet $\quad$ Red + Yellow $=$ Orange $\quad$ Blue + Yellow $=$ Green

Next, we create TERTIARY colors. These result from mixing a primary plus one of its neighboring secondary colors. Red + Violet $=$ Red-violet

## Color Schemes

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.

The four major color harmonies are:

Monochromatic - "Mono" means one and "chromo" means color. So a monochromatic harmony is based on one hue (Example: various tints and shades of green).


Analogous - Analogous means similar. Analogous colors are similar to each other because they share a common hue. Blue-green, green and yellow-green are examples. They are neighbors on the color wheel.

Complementary - Complementary harmonies are based on hues directly across from each other on the color wheel. Red and green 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 that are equally distant from each other on the color wheel. Examples include red, yellow and blue or orange, green and violet.

Use this information about color schemes when determining colors that look good together. Ask yourself, where do the colors fall on the color wheel? Which color scheme includes the colors you have chosen?

Tips: When matching colors, consider using tints of different colors together or shades of different colors together. Example: sky blue and pale green work well together.

When using complementary colors, be sure that one color dominates with its complement being used in small amounts. If the fabric has a print (example a shirt with diamond shapes of an analogous color scheme), coordinate it with a solid color that appears in the fabric of the shirt

## TEST YOUR COLOR KNOWLEDGE

Fill in the blank with the correct answer to show you know your color facts:

1. The primary colors include: Red, Blue and $\qquad$ .
2. The term "value" means the lightness or $\qquad$ of a color.
3. An example of a monochromatic color scheme is shades and tints of $\qquad$ .

## More about Color

What is your favorite color? $\qquad$

Do you wear this color often? $\qquad$
How do you feel when you wear this color? (Example: Happy, Confident, Calm and Cheery) $\qquad$

Colors sometimes affect the way we feel. Think of the color of the sun. Not only does the sun give off heat, but its color, yellow, is warm and cheery. On the color wheel the colors red, orange and yellow are considered warm colors. They seem warmer in temperature. When thinking about wearing warm colors, they may give you a lift.

Another fun fact that can help you when considering colors in what you wear is that warm colors tend to make you look larger. So, depending on your body size, you may or may not want to wear these colors in large amounts. Warm colors can be used as a great accent color in a belt, scarf or even a shirt or a blouse

Now think of the sky or the sea, the coolness of blue and green. Blue, green and violet are considered cool colors. These colors make you feel cool and calm. Cool colors tend to make you look smaller. So consider this when selecting garments.

Do you prefer to wear warm or cool colors? $\qquad$
Explain why you chose that color group.

$\qquad$
$\qquad$
$\qquad$


Now that you have learned about the colors on the color wheel and about combinations and what works well together, let's not forget the neutral colors. Colors like tan, brown, gray, black, dark blue, white and off-white are considered neutral colors. They are timeless and by buying clothes in these colors, you will have classics that can be worn for many years. You may consider having at least one clothing item in each category (shirt, pants...) that is a neutral color.

Then you can add color to brighten your outfit. For example, add a red shirt to a navy pair of pants.

Give an example of clothing you wear that is a neutral color. $\qquad$

## Exploring the Color Palette in Your Closet

Now that you know about colors and how to put them together, it's time to take inventory of what you have, what goes together and what you can add that would give your closet even more pizazz. Try this activity in your own closet!

1. Organizing your closet, separating your tops, pants, skirts, dresses, etc.
2. Organize the colors within these groups.
3. Complete the chart below (if items are made of print fabric, count them in the color that is dominant in the print):

| Item: | Blue <br> (Number of <br> items) | Red <br> (Number of <br> items) | Yellow <br> (Number of <br> items) | Orange <br> (Number of <br> items) | Green <br> (Number of <br> items) | Violet <br> (Number of <br> items) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Tops (shirts, <br> blouses) |  |  |  |  |  |  |
| Pants, shorts |  |  |  |  |  |  |
| Skirts |  |  |  |  |  |  |
| Dresses |  |  |  |  |  |  |
| Sweaters, jackets |  |  |  |  |  |  |
| Scarves, belts |  |  |  |  |  |  |
| Other items |  |  |  |  |  |  |

## Items that are Neutral colors:

White, Beige: $\qquad$
Black, Gray: $\qquad$
Brown, Tan: $\qquad$
Navy: $\qquad$

## Likes, Needs, and Coordinating Your Wardrobe Pieces

Based on your inventory, what are your most common colors? $\qquad$
Why do you like these colors? $\qquad$
What other colors (including neutrals) would you like to add to your wardrobe? $\qquad$
Now that you have organized your closet, it's time to see how many different outfits you can make, putting together different colors based on color hues, values, intensities, color schemes, as well as accent pieces. Have fun and enjoy your new fashion combinations!

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# Activity 2: Use of Line, Color and Texture in Clothing to Look Your Best 

## Selecting What's Right for Me

Project Outcome: Recognize line, color and texture in clothing and consider these when selecting clothing.
Project Indicator: Complete analysis of lines, colors and textures that look best on you and take a picture of an outfit representing this analysis.

We all want to look our best. We can use clothing and accessories to create our unique style. It is important to understand how the elements of design (Line, Color, Texture and Shape) can help us look our best.

Our clothing can reveal or disguise the natural body contour. Clothing shapes that are most flattering to a person emphasize his or her good features and hide the less attractive ones. We want a unified blend of color, line, texture and shape/silhouette for the best look.

In order to create your best look, first you need to understand the effects of line, color, texture and shape on your total look and then determine what is most flattering to you.


Lines can create optical illusions in the clothing we wear, thus helping us to create a look that gives us our intended appearance. Look at the lines to the left above; which is longer?

As you can see from the same lines on the right, they both are the same length. However, the line with the inverted "V" on both ends looks shorter than the line with the "Y."

Lines are created through the silhouette of our body, details of the clothing we wear, and the patterns/designs of the fabric that is used to make our garments. When selecting clothing, be sure to consider the direction and placement of lines. Remember that the dominance of a specific line can include the length, width, brightness and repetition of a line.

## Types of Lines

Vertical Lines are lines that go up and down. Vertical lines make a person appear taller and thinner because they lead the eye up and down. However, when repeated at even intervals, the eye tends to move from one line to another, which does NOT make a person appear taller.

## Tips for looking taller:

- Use Vertical lines.
- Wear monochromatic (one color) from head to toe.
- Wear small prints and plaids.
- Wear narrow belts of self-fabric or the same color.


Horizontal Lines are lines that go across. These lines makes a person appear shorter, adding width to the silhouette. These lines will draw attention to where they are placed, so be sure to watch where the horizontal lines are placed on an outfit.

## Tips for looking shorter:

- Wear contrasting colors (different color on top of your body than on the bottom).
- Use Horizontal lines (lines that go across).


Diagonal Lines are lines at an angle that can either add height or width. If the lines are short, the eye moves from side to side. If the lines are long diagonal lines, the eye tends to move up and down, adding height. If the diagonal lines are closer to horizontal, then this will add width. Lines closer to vertical add height.

Curved Lines are softer and can add a graceful appearance. Also, if an individual has sharp features, such as a long face with a pointed chin, a curved neckline will soften the total appearance.

Zigzag Lines appear active, fast and exciting.


## TEST YOUR LINES KNOWLEDGE

Now that you have learned about lines and their effect on your appearance, test your gained knowledge by circling the correct answer:

1. What type of line should you use in clothing if you want to appear taller? Vertical, Horizontal, Diagonal
2. Wearing a shirt and pants of the same color will make you appear $\qquad$ . Taller, Shorter
3. Zigzag lines are characterized as softer, creating a graceful look. True or False
4. If you are tall and thin and want to appear shorter, which line would be best to include in a garment? Vertical, Curved, Diagonal Lines that are short

## BODIY SHAPIS

Knowing your body shape is another important aspect to putting an outfit together in order to look your best. Dressing correctly means dressing for your body shape and creating the perfect body balance.

Once you know the unique aspects of your figure/body 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.

## Basic Body Types for Males



Ectomorphic - slender/skinny, small shouldered, long body appearance


Mesomorphic - muscular, lean, large shouldered body appearance


Endomorphic - body thick, heavy, soft/full in appearance

## What Males Should Wear to Look Their Best

Tips for Ectomorphic Body Shapes:

- Wear horizontal stripes to make the upper part of your body appear bigger.
- Wear contrasting shirt/sweater/jacket and pants/shorts to make you appear shorter.
- Wear shirts with contrasting collars or jackets with wider lapels and slim-fitting pants to emphasize the top part of your body.
- Wear fuller shirts or jackets to make the upper part of your body appear larger.
- Wear bright-colored shirts to make the upper part of your body appear larger.


Tips for Mesomorphic Body Shapes:

- Emphasize your body's natural V-shape with well-fitting jackets or shirts.
- Wear shirts with small checks or prints.
- Wear bright-colored shirts.
- Wear straight-fitting pants.


Tips for Endomorphic Body Shapes:

- Wear solid colors from head to toe to help you look slimmer and taller.
- Wear vertical lines.
- Make sure your jackets fit well through the shoulders.
- Wear straight-legged relaxed-fit pants.



## Basic Body Types for Females

The most popular body types for girls are described as follows:
If you have an undefined waist and your bust measurement is larger than your hip measurement, you have an Apple body type. You probably also have slimmer legs and arms.
You have a Pear-shaped body type if your hip measurement is larger than your bust measurement. This means you have broad hips and a defined waistline, with shoulders more narrow than hips.
If your measurements are about the same for your bust and hips, with a welldefined waist, your body shape is Hourglass. This is a well-balanced figure type.
Your body type is Rectangle if your measurements are about the same for bust, waist and hips. Your waistline is not well defined.


What Females Should Wear to Look their Best
Tips for the Apple Body Shape:

- Wear high-waisted or raised-waisted dresses and shirts with V-necks or scoop neckline.
- Jackets that fall below the waist, fitted, open down front create a vertical line.
- Slacks/pants with boot cut or flared at bottom make you appear taller.
- A-line skirts using soft, flowy fabric with small patterns or designs are flattering.


Tips for the Pear Body Shape:

- Wear bright and beautiful scoop neck and boat neck tops. This will make your shoulders look wider. Also accessorize with wonderful necklaces.
- Wear shirts with bright colors and prints to draw attention to your upper body.
- Wear boot cut or flared pants that elongate your appearance.
- Wear jackets that come to the waist.


Tips for the Hour Glass Body Shape:

- Accentuate your waist and wear clothes that show off your balanced figure.
- Wear broad belts over your shirt or dress. Wear wrap-around tops and skirts, flowy dresses or skirts.
- Wear well-fitting tops, fitted jackets, tops or dresses with pleated waist or pencil skirts.


Tips for the Rectangle Body Shape:

- Wear slender-fitting tops with contrasting colored pants.
- Wear dresses with a fitted look or fitted at the top with flared skirt and contrasting belt.
- Jackets should be fitted, come to the waist, and a contrasting color than your dress, skirt or pants/shorts.
- Wear bright colors and try different textures



## TEST YOUR BODY SHAPES KNOWLEDGE

True (T) or False (F):
T F 1. The Ectomorphic body type is described as muscular, lean, large-shouldered body appearance.

T F 2. The Apple shaped body type has hip measurements larger than bust measurements.
T F 3. A person with a pear shaped body type should wear shirts with bright colors and prints to draw attention to your upper body.

T F 4. The Endomorphic body type should wear shirts with vertical lines to appear slimmer.
T F 5. The person with a rectangle body type should wear a contrasting colored belt.

What lines are best for your body shape?
From what you have learned about lines and the illusions they create, describe and sketch the line that looks best on you:

Explain why this is the line that looks best on you.

Identify pictures of garments (online or in magazines) that contain the lines that look best on you.

What is your shape and what should you wear?
Now that you have learned about different body shapes, what body type are you? $\qquad$

Describe the types of garments that look best on you according to your body shape:

Find garments in your closet that are similar to what you described above and try them on. See if the effect is as described in the information about that body shape. Describe or sketch your outfits below:

## COLOR

Color is often the first element you notice. Color is very important to the response each of us feels when we see any item such as a garment or a room. We can only see color when there is light (that's why everything looks black at night). Some colors make you feel different. One way to group colors is by their feel. Warm colors are red, orange and yellow. They seem warmer in temperature. Cool colors are green, blue, and violet. These colors seem cooler.

You can use color in what you wear to make you look cheery and glow, while other colors may tend to drain the color from your face and make you look drab. Look at the garments in your closet. Is there one basic color for most of the items? If so, this is probably a good choice as your wardrobe basic color. But there are some steps you can take to make sure the colors you wear are the best for you and give you that glow.

Some important words you need to know before discovering your best colors:
Hue - the name of a color (red, blue, etc.).
Value - the lightness or darkness of a color. A tint is made when white is added to the hue, making it light. A shade is when black is added to the hue, which makes the color dark.

Intensity - the brightness or dullness of a color. A color can be made less intense by adding gray to it. In the color circle to the right, the most intense colors are found along the outside of the circle.


Each person is a unique individual in terms of skin pigmentation, eye color and natural hair color. Let's begin to discover the colors that make you glow. Take a look at yourself in the mirror near natural light. Look at your skin, hair, eyes - all without makeup.


SKIN TONE FACTS: Skin tone comes from three pigments: brown, blue and yellow. The combination of these three pigments give you your skin tone. Because your skin acts as a thin filter, it is the tone just under its surface that determines whether your coloring is cool or warm. To help you identify your skin tone, take a silver-colored (cool) and a gold-colored (warm) piece of fabric or paper. Place one hand on the silver-colored piece and the other hand on the gold-colored piece. Also try the inner side of your wrists that rarely get sun exposure. You will notice that with the right color your skin color will blend in well with the color of the paper or fabric, and your skin will look even. With the wrong color your skin will look uneven and speckled.

You can also look at the veins in this same area. If they look blue or purple, you're cool toned. If they look green or have a yellow cast, you're warm toned.

## Identifying Your Best Colors

Hair Facts: Blonde, brown and black hair color have blue undertones, while strawberry blonde, red and some brown hair colors have golden undertones.

Eye Color Facts: Eye color does not fade or change with age as skin color and hair color do. It remains the same from infancy on, unless it is changed by disease or by the use of contact lenses. Blue, gray or green eye colors are considered to have cool undertones, while brown, amber or hazel eye colors contain golden undertones.

Almost everyone can wear all hues, but the value and intensity of a hue determine which colors are best for you. Each undertone group contains both soft and vivid colors. Some people feel more comfortable with a soft image; others love bright colors, and still others prefer to dress in neutrals. The specific colors you select will reflect your mood and personality.

Now complete the information below with what you have learned:
My skin tone is: WARM COOL
My hair color is: $\qquad$ . It has a WARM COOL undertone.

My eye color is: $\qquad$ It has a COOL/BLUE WARM/GOLDEN undertone.

Now that you know more about color and facts about skin, hair and eye color, it's time to determine you best colors.
Which palette best suits you based on the above information?
Cool Color Palette: Cool-toned individuals look best in what we call "cool" colors like blue, green and neutrals, such as white, black, navy blue and gray. Think of colors that remind you of water, sea and sky.

Warm Color Palette: Warm-toned individuals look best in red, sunny yellow, burnt orange and neutral colors like beige, camel and browns. Think of the sun and the fall colors of leaves.

## Things to try:

Now that you have some idea what your color palette may be, put it to the test.

1. Pull out clothes in your closet that represent cool and warm palettes.
2. Next, hold up a specific colored garment to your face and look in a mirror. You can
 also get together with your friends and help each other identify your best colors. As you hold colors up to your face, the right color will smooth and clarify your complexion, minimize lines, shadows and circles, and bring a healthy color (glow) to your face. The wrong color will make your complexion look pale, sallow or muddy and create shadows around the mouth and nose, dark circles under the eyes, and blotches. It will tend to drain the color from your face. Find colors that make your skin, hair and eyes glow.
3. Familiarize yourself with your colors so that when you shop, you will understand the colors best for you. Analyze the new fashion color trends carefully before buying, because they may or may not be right for you. Only consider buying garments and accessories in colors best for you.

Remember, if people compliment you on what you are wearing, that usually means you're wearing your best color.
Use the space below to sketch or describe the wardrobe pieces that are in your best color:

## TEXTURE

Texture represents the feel of an item. Different textures add variety to life and are all around us. Think of sandpaper, metal, rocks, fur, burlap, velvet and peaches. Each of these has a different texture. Whether you know it or not, you react to texture. Some textures make you want to touch them; others are the opposite. Would you want to touch a porcupine? A fuzzy kitten? Looks can sometimes be misleading when it comes to texture. Have you ever seen something that looked soft, or stiff, or slick, and then you touched it and found that it wasn't that way at all? This may be due to the fibers used or the color that is reflected or absorbed. The important thing about texture, when it comes to clothing, is that rough textures seem to take up more space; smooth textures seem to recede (take up less space.)

Texture in FABRIC is the surface quality of fabrics and is assessed mainly by feeling the fabric. Fabric texture can be rough, smooth, shiny or stiff. This is determined by the fabric's fibers, yarns and method of construction. You can use your knowledge of texture in your appearance through these tips:


- Smooth, flat textures make a person look smaller.
- Shiny textures make the body look larger because the fabric reflects light (silk, satin). They make fabric colors look lighter and brighter, thus making the body look larger.

- Rough textures tend to subdue the colors of fabrics.
- Sheer fabrics reveal the true body shape. It tends to soften the figure when used over a soft lining.
- Dull textures make a person appear smaller because they absorb light. Example: blue jeans.

- Stiff, crisp textures make a total shape appear bigger because they stand away from the body (linen jacket).
- Pile fabrics, such as velveteen and corduroy, and heavier weight fabric, such as tweeds, nubby wools and denim look good for casual occasions and add bulk.



## TEST YOUR TEXTURE KNOWLEDGE:

- Do all textures feel the way they look? $\qquad$
- Why might some textures feel similar but look different? $\qquad$
- Which textures do you like best? $\qquad$
- Would you say there are smoother or rough textures in the clothes you wear? $\qquad$
- Name a fabric that is shiny: $\qquad$
- Name a garment you wear that you would consider fuzzy: $\qquad$
- What textures look best on you? $\qquad$
- Why? $\qquad$


## What Looks Best on Me?

We can use our knowledge of the design elements to make us look taller-shorter or bigger-smaller. As you can see, the combinations of line, shape, color and texture are endless. Something can look different by changing one or more of these elements. The more you experiment with them the more you will understand them. Now you will be able to use art elements to your benefit in deciding what to wear. So have fun with line, shape, color and texture!

Now that you have learned your best line, shape, color and texture, list and describe it below.

| Design Element | My Type | Description of what I would wear <br> for my best look |
| :---: | :---: | :---: | :---: |
| Line |  |  |
| Body Shape |  |  |
| Color Palette |  |  |
| Textures |  |  |

Now the fun begins! Do a wardrobe analysis and separate out all the clothes that match your description above. When looking at your best colors, remember that these colors should be worn, especially on the top part of your body. So if you have skirts or pants that are not your best colors, match them with a top that is one of your best colors.

Since you can't go out and buy a whole new wardrobe, try to mix what you have in your wardrobe with the combinations that are most flattering. Then as you go shopping for clothes, be sure to buy only those clothes that are best for you. HAVE FUN!

## What you can do with what you have learned:

1. Have someone take a picture of you sorting out your wardrobe.
2. Take a picture of you wearing an outfit that includes all elements of what is best for you.
3. Create a poster or PowerPoint that includes information about your best lines, color palette, textures and your body shape. Include pictures of outfits that show these best elements for you.

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We all have more clothes than we need. This lesson will help you determine the difference in a need and a want related to buying new clothes.

Start off by answering these questions:

1. Why do you wear what you wear? $\qquad$
2. How do you decide when you need more clothes? $\qquad$
3. Do you like to get new clothes? Why? $\qquad$
4. Have you ever heard your parents say they need to take you shopping because you need a new clothing item? $\qquad$
5. Why did you need this item, for school, special occasions, or what you have doesn't fit any more or it is worn out? $\qquad$
It's important to realize the difference in a need and a want in clothing. We can often accumulate lots of clothing items and still say, "I have nothing to wear." A little planning can help you know what you have, what you need, and then know when you go shopping that you are buying something you need or buying something just because you want something new.

Wearing something new can make us feel good, especially when we get compliments, but most of us don't have the money to buy what we want all the time. So careful planning can help us be able to buy something we want every
 once and a while but concentrate on buying things that we need (that fill a gap

of a color or style or item that is missing from our wardrobe).
To do this takes planning, and planning means looking at what you have now, thinking about what you will need, and taking steps to get those things.

Let's learn how to know when you need a new clothing item. It all begins with developing a wardrobe plan.

You need to know what is in your wardrobe (through a plan) in order to:

1. Know what you have.
2. Coordinate (match) items, mixing and matching garments that you can change around to get more wear out of fewer garments.
3. Know that when you have a special occasion, you will be aware of what is in your closet.
4. Not buy something similar to what you already have when you go shopping.

## Developing a Wardrobe Plan

Step 1: Look at what you already have.
To do this you have to separate all your clothing items into two categories: 1. things that are wearable and 2 . things that are not wearable.

For the things that are wearable, put separate pieces together to make outfits. You may want to use the "scarecrowing" technique. This is done by taking garments and laying complete outfits on your bed like you are making a scarecrow. This may also help you know specific garment pieces that you need to make more outfits.

Take the things that are unwearable and decide if they should be repaired to be wearable (and do it), given away or used for some other purpose. Then remove these items from your wardrobe.

Step 2: Look at your wearables and categorize them.
To do this, you need to make an activity chart similar to the one below. This will tell you exactly what you need for the various activities in which you are involved.

1. Total the approximate number of hours you spend per week on each activity listed (you may add some not listed). After you have totaled the number of hours you spend on each activity, then rearrange them from the highest number of hours to the least. This indicates the type of clothing for which you have the greatest need.
2. Complete the "Number of Outfits I Have for Each Activity" portion of the chart by dividing your
 wearable clothes into categories/different piles (using your bed or similar surface) depending on your activities. You should have at least one garment to wear for each activity. Some can fit into more than one category. This is great because it really stretches your wardrobe.
3. Look at the results to decide if you have enough clothes for each category related to the amount of time spent in each category. You may find by doing this that you indeed have enough clothes for your various activities. So now when you go shopping you will be able to say, "I need this garment" for a specific activity as well as know when you simply want a new outfit.

## Inventory of Clothing Based on Activities

| How I Spend My Day (Activity) | 1. Number of hours per week spent on this activity | 2. Number of outfits I have for this type of activity | 3. Do I have enough outfits for the amount of time I spend on this activity? |  |
| :---: | :---: | :---: | :---: | :---: |
| School |  |  | YES | NO |
| At home (relaxing, studying, watching TV, etc.) |  |  | YES | NO |
| Recreation/Sports |  |  | YES | NO |
| Hanging out with friends |  |  | YES | NO |
| Other |  |  | YES | NO |
| Other |  |  | YES | NO |

## Creating a Shopping Plan

Now that you have determined your clothing needs, you are ready to create a shopping plan. Here are the basic steps:

1. Evaluate your clothing budget. How much money do you have to spend on clothing? If you don't know your clothing budget, ask your parents to give you a limit on how much you can spend on new clothes. This will help you know how much you can afford and how you can prioritize the items.

2. List your needs, considering the items that will give you the most mileage in combination with other clothing you already own. Consider the upcoming season and your needs.
3. Then consider your wants. Remember, it's okay to want something new. Make sure that it coordinates with something you already have so your purchase can go farther.
4. If possible go online or use catalogs, fashion magazines or other sources to get an idea of what is available, what styles are popular, and what you may have to pay for the items you want to buy.
5. As you shop for your planned wardrobe items, purchase coordinating items, not just one piece. This approach will reduce the chance of buying items if bought at different times that don't coordinate. The piecemeal approach to shopping (buying a few things now and a few things later) can be very expensive because garments you think will match may not. An example: there are a lot of different shades of red.

Take photos of you separating your clothing items or shopping for the clothes on your list and keep it for use in your portfolio, as part of a poster, or in teaching this to fellow 4-H'ers.

## Shopping Plan

Clothing Item Description of What Is To Be Bought Approximate Cost

| Outerwear |  |  |  |
| :--- | :--- | :--- | :--- |
| Jackets/Sweaters |  |  |  |
| Tops |  |  |  |
| Shirts |  |  |  |
| Slacks/Shorts |  |  |  |
| Jeans |  |  |  |
| Skirts |  |  |  |
| Dresses |  |  |  |
| Athletic Wear |  |  |  |
| Shoes |  |  |  |
| Socks |  |  |  |
| Accessories <br> (jewlery, belts, <br> ties, etc. |  |  |  |
| Other |  |  |  |

Now that you have completed this process, enjoy your well coordinated wardrobe!

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## Activity 4: How Do Your Clothes Fit?

## Selecting What's Right for Me

Project Outcome: Select clothing that has the proper fit.
Project Indicator: Completed measurements and size chart.
We all want our clothes to look good on us. One key factor in looking your best is that the clothes you wear fit properly. In this activity we will explore the many aspects of what it means for clothing to fit well. What constitutes a good fit? When a garment is viewed on someone from all sides, it looks good without pulls, gaps or folds.

Sizes vary among manufacturers and brands. 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 and looks good.


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 have varied in size. Depending on the garment, different measurements may be needed. 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 online that you can't try on before buying, use your measurements as a guide. Use charts available on the online site to help you decide the correct size.


## Find Your Size

Now it's time to take your measurements and determine your size. To complete the chart below:

1. Take each measurement and record in the space provided at the bottom.
2. Circle the number in the same column that is closest to your measurement. If the number is not exact go to the next higher number.
3. Now determine which size best matches your measurements.

Girls' Sizes with Measurements

| SIZE | HEIGHT | WAIST | BUST | HIPS |
| :---: | :---: | :---: | :---: | :---: |
| $7(\mathrm{~S})$ | $51-52$ in | 23 in | 26.5 in | 31.5 in |
| $8(\mathrm{~S})$ | $53-54$ in | 23.5 in | 27.5 in | 29 in |
| $10(\mathrm{M})$ | $55-57$ in | 24.5 in | 29 in | 30.5 in |
| $12(\mathrm{~L})$ | $58-59$ in | 25.5 in | 30.5 in | 32.5 in |
| $14(\mathrm{~L})$ | $60-62$ in | 26.5 in | 32 in | 34.5 in |
| $16(\mathrm{XL})$ | $63-64$ in | 27.5 in | 33.5 in | 36.5 in |
| My <br> Measurements: |  |  |  |  |

Boys' Sizes with Measurements

| SIZE | HEIGHT | WAIST | CHEST | HIPS |
| :---: | :---: | :---: | :---: | :---: |
| 8 (S) | 50-53 in | 23.5 in | 27 in | 27.5 in |
| 10(M) | 54-57 in | 25 in | 28.5 in | 29.5 in |
| 12 (M) | 58-60 in | 26 in | 30 in | 31.5 in |
| 14 (L) | 61-63 in | 27 in | 32 in | 33.5 in |
| 16 (L) | 64-65 in | 28 in | 33.5 in | 35.5 in |
| 18 (L) | 65-66 in | 29 in | 35 in | 37.5 in |
| 20 (XL) | 67-68 in | 30 in | 37 in | 39.5 in |
| My <br> Measurements: |  |  |  |  |

MY SIZE: $\qquad$

Remember that different stores and brands provide different amounts of ease in their garments. So it is always best to try garments on before you buy them. 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 outer garments, such as coats, remember that they will top several other layers of clothing. Allow for extra room and sleeve length.

## Hints to Fit Your Size

- 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.


## 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.
- 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 wristbone when arm is bent.
- Waistline lies along the natural waistline, or if raised or lowered, along the midriff or hips.

- 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.

By following these guidelines, you should have a workable wardrobe and one that is unique, pleasing to you, and fits well.


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## Activity 5: Expressing Your Personality Through Your Clothing

> Selecting What's Right for Me
> Project Outcome: Select clothing that expresses an individual's unique personality.
> Project Indicator: Complete analysis of personal style with picture in outfit that represents personal style.


Clothing conveys much about our personalities and who we are. It is one of the most important clues from which first impressions are made. When you learn what your clothing says about you and ideas for adding your own personal touch to your clothing, you can have fun with your wardrobe.


To get started, think about what you wear on a daily basis and describe two outfits here:

| OUTFIT ONE (circle) |  | OUTFIT TWO (circle) |  |
| :---: | :---: | :---: | :---: |
| Knit top or Button-up shirt | Pants or shorts or skirt | Knit top or Button-up shirt | Pants or shorts or skirt |
| Long Sleeve or Short Sleeve or Sleeveless | Long or short | Long Sleeve or Short Sleeve or Sleeveless | Long or short |
| Loose or Body fitting | Loose or Body fitting | Loose or Body fitting | Loose or Body fitting |
| Fabric: Solid color or Print Actual Color: $\qquad$ | Fabric: Solid color or Print <br> Actual Color: $\qquad$ | Fabric: Solid color or Print <br> Actual Color: | Fabric: Solid color or Print <br> Actual Color: $\qquad$ |
| Shoe type: <br> Shoe color: | Accessories (List): | Shoe type: <br> Shoe color: | Accessories (List): |

## CLOTHING REFLECTS OUR VALUES, CREATING OUR CLOTHING PERSONALITY

Our society has developed ideas about 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 about ourselves by the way we dress. This is our own "clothing personality."


Whether you believe it or not, values are reflected through the clothing we wear. Do you and your parents ever disagree on appearances? One reason may be the values of each person. You may feel a style is a statement of independence from your parents, while your parents may 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 they would make the news?

That is how important our choice of clothing is to us and others. 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 get 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 them as often if they don't fit your clothing style.

## WHERE DO YOU WEAR YOUR CLOTHING?

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. Look in your closet and identify where you wear the majority of your clothes:
I wear the majority of the clothes in my closet at:
$\qquad$ School
Leisure Activities
When Enjoying My Hobbies
Religious Functions
Cultural and/or Formal (dressy) Occasions
(If you have a good amount of clothes in your closet in more than one category above, check those above.)

At all of the above occasions, our dress reflects our personality as well as our values, such as:

- Material comfort (economics)
- External conformity (belonging to a peer group)
- Equality of social status (wanting to belong to a different group)
- Individuality (being unique)


## Clothing Personality Styles

To get a better picture of various styles that can be identified through the clothing we wear, examine the clothing personality styles below.
Dramatic - enjoys bold, colorful dressing. Uses large and spectacular accessories. This person is often the first to try a new style. Everyone notices when a "dramatic" person walks into the room. Guys who like this style are usually tall and thin.


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 and prefer to be outside. The sporty/natural will find their style of clothes in places like Eddie Bauer.

| Gamine - a smaller/shorter version of sporty/natural. The <br> gamin looks great in pixie hairstyles and sporty/natural clothing <br> styles. Guys are youthful looking and have an eye for detail. |
| :--- |
| Classic - enjoys dressing in a tailored look. Classic sweaters, <br> pleated skirts or pants. This person is naturally very neat; <br> everything is in place and stylish in moderation. |
| Romantic - likes dressing with lots of fullness and softness. <br> This person chooses large plaids, large printed designs on <br> fabrics, and large details (females like large ruffles, lace and <br> bows; males like baggy pants and full-cut shirts and sweaters). |

## IDENTIFYING YOUR PERSONAL STYLE

Now that you have learned more about personal style, look at the two outfits you described in this exercise (or look at your favorite outfits in your closet and identify your style as one of the following (Dramatic, Sporty/Natural, Gamine, Classic, Romantic, Ingénue):
My style is: $\qquad$
Is there anything you would add to your outfits to make them better reflect your style? Yes No If "yes" describe here what you would add: $\qquad$
Now that you have identified your personal style, look at the descriptions of that style and/or examples given. If you could buy an outfit for a special occasion reflecting your identified style, describe what that outfit would look like, including color, fit, length, etc.
I would wear my special occasion outfit to: $\qquad$
Description of outfit: $\qquad$

## Test Your Knowledge

1. Identify the following images with the correct style. Choose from: Dramatic, Gamine, Romantic.

a $\qquad$ b $\qquad$ c $\qquad$
2. Identify the following images with the correct style. Choose from: Sporty/Natural, Ingénue, Classic.

a $\qquad$ b $\qquad$ c $\qquad$

To complete this activity, take a picture of you in an outfit that expresses your identified personality style and keep it for your portfolio or to use to show others what you have learned.


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# Activity 6: Getting Your Clothes Ready to Clean 

## Caring for My Clothes

Project Outcome: Identify proper sorting techniques for laundering. Project Indicator: Using proper sorting techniques to prepare.


Do you ever wish your clothes could be magically cleaned and hung in your closet? Of course this won't happen magically, but it can be made easier by knowing what to do to properly sort your soiled clothes. Proper sorting before washing will make your clothes last longer. If you don't wash your own clothes, you can help your parents by getting them ready to wash.

## FOLLOW THESE TIPS FOR CLEANER CLOTHES:

There are several groups in which you will sort the clothes. Use the following groups to sort your items.

## Sort by color:

Be sure to sort your clothes by color so your white shirts won't turn out pink or blue.
Whites - launder in hot water.
Brights or darks - launder in cool water.
Some dyes (colors) may fade onto other clothes, so these should be washed alone. Look at the care label to see if an item should be washed separately.

## Sort by construction and fabric type:

Woolens and loose wovens, sheers and delicates need less agitation, so should be washed on a delicate cycle. Towels and washcloths are lint producers and should be washed together. By keeping fabrics and clothes of similar weights together, they last longer. Be sure to close zippers to avoid harm to other clothes.

## Sort by dirtiness:

If your clothes are very soiled or stained, you'll want to choose a longer, heavy-duty or specialty cycle. Sorting by dirtiness keeps excess soils from redepositing on less dirty items.


Now that you know how to sort your clothes properly for washing, take the challenge. For two weeks track your clothing sorting habits using the tips you just learned. Put dates and a check under the face according to what you did or didn't do.

|  | DATE: | DI |  | DATE: | 11 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Sorted laundry by color |  |  |  |  |  |  |
| Sorted laundry by <br> construction and fabric type |  |  |  |  |  |  |
| Sorted laundry by dirtiness |  |  |  |  |  |  |

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## Activity 7: Take Care of Your Clothes!

## Caring for My Clothes

Project Outcomes: Identify and follow proper techniques for caring for clothes daily. Know why having well-pressed garments is important to a person's overall look.

Project Indicator: Taking care of your clothes using proper techniques, completing the clothing care evaluation with mostly smiley faces. Wearing neatly pressed clothes.

## TIPPs Outcome: <br> -Identify the parts, steps and necessary sequence or order to achieve a goal. <br> -Make the needed effort to carry out a task or a plan.



One of the most important things each one of us can do daily is to take proper care of our clothing. By doing this, we can keep our clothes lasting longer without spots, stains or tears. Also, by taking care of our clothes daily, they will be ready whenever we want to wear them. Other people may not see you taking care of your clothes, but the results are clearly visible in your everyday appearance.

Day-to-day maintenance keeps your clothes fresh, clean and comfortable. Pressing our clothes can make a garment look crisp, fresh and new. The lack of ironing can give a sloppy look. The neat appearance that results gives the impression that here is a person who takes pride in their appearance. It says, "I respect myself and want you to respect me also." Wearing a neatly pressed garment makes you feel good and gives you a good start to your day or makes you feel extra special when attending a special event or activity.

## HERE ARE SOME TIPS TO KEEP YOUR CLOTHES LOOKING LIKE NEW:

As you remove your school clothes, take a minute to look at each piece. Ask yourself these questions:

## 1. Is it dirty?

If no, hang it up or fold and put away. If possible, hang your clothes in a separate area to let them air out before putting them away. Use a plastic or padded hanger to help clothes maintain their shape. Wire hangers can bend, snag, rust, cause snags and leave dents in shoulders.

Fold sweaters and other knitted garments so they won't stretch, out of shape.


## DON'T THROW CLOTHES IN A HEAP!

If yes (your clothes ARE dirty), put them in the laundry basket. It is helpful to empty all pockets, zip zippers and close snaps to prepare the clothes for laundering.
2. Is it stained? If yes, treat the spot using a stain removal product and wash as soon as possible.
3. Is it torn or in need of repair? If yes, keep it separate and tell a parent so repairs can be made before cleaning. If you have learned to sew, do the repairs yourself.


## NOW IT'S TIME TO LAUNDER (WASH) YOUR CLOTHES. HERE ARE SOME IMPORTANT TIPS TO FOLLOW:

1. Sort your clothes according to color and type of garment (everyday wear, delicates, sweaters...). This is really important so your white shirts/blouses won't turn out pink and your sweaters won't shrink or stretch out of shape.
2. Be sure to check the permanent care labels on your clothing to make sure you use the proper water temperature and washing cycle so your clothes will look their best for a long time.
3. You also need to check your clothing labels to determine how to dry your garments. Most clothes can be dried in the dryer. Your delicate garments and sweaters may require you to hang to dry or for sweaters, dry flat. This will help them retain their shape and size.

Washing machine cycles include: normal, permanent press and delicate. The cycle you choose is based upon the amount of agitation and spin what you are washing requires and can tolerate.

Water temperature is important: For your everyday clothing, you will use either warm or cold water depending on the garment. The hot water cycle is usually reserved for towels and bedding.

## Clothing Care Challenge:

Now that you know how to care for your clothing, take the challenge. For two weeks track your clothing care habits using the tips you have learned. Put dates and a check under the face according to what you did or didn't do.

|  | Date: | (1) | 11 | Date: | (11) | 11 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hung up my Clothes |  |  |  |  |  |  |
| Folded sweaters/t-shirts... |  |  |  |  |  |  |
| Put dirty clothes in laundry |  |  |  |  |  |  |
| Treated stains immediately |  |  |  |  |  |  |
| If tears or other repairs were necessary, kept these clothes separate and made re- pairs or had repairs made |  |  |  |  |  |  |
| Sorted Garments by color and type |  |  |  |  |  |  |
| Used proper water temperature and washing cycle (or helped mom or dad) |  |  |  |  |  |  |
| Used proper drying techniques, using clothes dryer, hanging, or laying flat |  |  |  |  |  |  |

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# Activity 8: Get the Wrinkles Out 

Caring for My Clothes<br>Project Outcome: Use pressing tools to remove wrinkles from garments.<br>Project Indicator: Using practices learned to press/steam clothes.

Equipment you will need:<br>- Iron and ironing board, press cloth or clothes steamer

In the past one of the major chores around the house was ironing clothes, with your grandmother spending hours starching and ironing clothes. We are lucky today that many of the clothes we buy and wear have a permanent press finish that requires little or no ironing. Also, many of our clothes are made from manufactured fabrics like polyester and nylon, which do not wrinkle. It is wise to check the labels of garments before you buy them to check the fiber content and see if they are permanent press. Another trick you can use is to take the corner of the garment and wad it up in your hands, then let it go and see if the wrinkles remain.

There are some fashions that are made to have the wrinkled look, but for others, pressing or steaming is necessary. The right equipment for all your pressing/ironing needs, whether you are sewing or ironing your clothes, makes a big difference in the finished appearance and the ease of the task.

## USING A STEAMER TO REMOVE WRINKLES:

Today most people buy and use steamers to get out wrinkles. Steamers come in a handheld portable type or on a stand. Most wrinkles can be removed by proper use of the steamer. But sometimes you will find you need an iron for pressing collars and cuffs and small areas, as well as pressing during the sewing process.


Ironing/steaming can make a garment look crisp, fresh and new. The lack of ironing/steaming can give a sloppy look. Ironing/steaming does take some time but is worth the effort. A neat appearance shows that you take pride in your appearance.


## How to Use a Steamer

1. Prepare the steamer for use: Pour cold water into the water tank of your clothes steamer. Make sure that all of the parts of the steamer are secured properly; you don't want to leak water all over the place. Turn on the steamer.

## 2. Hang the garment you wish to steam.

3. Steam your garment by running the steamer in downward strokes along the fabric. You don't need to press hard or push the fabric against anything; the steam will gently remove the wrinkles on its own.
4. Turn off steamer when you are finished.
5. Let your garment dry for about five minutes, as steam causes fabric to be slightly damp.

## THE NITTY GRITTY OF USING AN IRON



For the best results be sure your iron has a dry and steam setting for pressing a variety of fabrics. Because different fibers and finishes need different temperatures, read the care labels of your clothes for recommended iron temperature. If the label doesn't give specific instructions, it is safe to iron at any temperature. As a general rule most natural fibers need more pressing, and manufactured fibers require less.

HOW HOT SHOULD YOUR IRON BE? Use high heat for cotton and linen. Cotton blends and wool are ironed on a medium setting. Use a low setting for silk, nylon, polyester and other like fabrics.


## How to Iron

1. Before you begin to iron fill the iron with water when using steam; plug the iron in; adjust it to the correct setting; and allow it to preheat.
2. When you actually begin to iron, take your time and make sure the garment has been stretched flat across the ironing board. This will save you some time in terms of re-ironing wrinkles that you put in.
3. Use a damp cloth and no steam when ironing lace and wool. Delicate fabrics should not have direct contact with the iron.
4. 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. Steam can be used on most fabrics to remove wrinkles quickly.
5. 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.

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.
- 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.


## THE PRESSING/STEAMING CHALLENGE:

- Go to your closet and find several garments that you wear on a regular basis that have some wrinkles. Get with your parents or other adult and have them help you use the information you have learned to press or steam the wrinkles out of the selected garments.
- Be sure that when you hang them back in your closet they are not crowded by other clothes.
- Next time you put these clothes on, look at yourself in the mirror and see if you can tell a difference in the way you look and how it makes you feel.
- In order to have a record of what you have learned, have someone take a picture of you pressing/steaming a garment.


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# Activity 9: What's on that Clothing Label? 

Caring for My Clothes<br>Project Outcome: Locate and read care labels on clothing.<br>Project Indicator: Analyze garments for care instructions.

Reading the care labels on your clothing can help you know how to launder your garments so they will last longer. Before you buy a new garment, you need to read the care label to find out if there are special care instructions. Especially check to see if it says "Dry Clean Only." This can cost you a lot over the life of the garment. The following will help you as you discover what is on your clothing labels and how to read and use this information.

Many years ago laws were created to help the consumer when they buy and care for their clothing. Before these laws were enacted, sometimes it was hard to determine how to wash clothing or if they could be washed.
100\% POLYESTER
MACHINE WASH IN
LUKEWARM
WATER
DO NOT BLEACH
TUMBLE DRY
COOL IRON IF
NECESSARY
MADE IN USA


## HERE'S WHAT IS REQUIRED TO BE ON YOUR CLOTHING LABELS:

- Fiber content and what percentage of each (Ex: 50 percent cotton, 50 percent polyester).
- Identifying the manufacturer; name and number.
- Identifying the country of origin where processed or manufactured.
- If fur, what animal is it from, is it dyed or bleached.
- If wool, is it recycled wool.
- How to care for your fabric.

The care instructions must be permanently attached to garments. But where can you find these labels? They are usually affixed on the back of the neck or on the side seam. With new technology, many knit garments have the care instructions printed on the inside near the neck line. Since sometimes regular labels tend to itch. This new technology allows a permanent way for care labels to be "itch-free."


## Let's Learn More about the Care Label

Each care label must give one acceptable way in which to care for that item. In the U.S. it must be in written form. The European form uses symbols that may also be included. An 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 cannot try to get the ruined garment replaced.

## TIPS FOR USING CARE LABELS:

- Check the care label when sorting clothes for washing so your clothes will not shrink and will last longer;
- Create separate piles of clothes according to recommended water temperature and drying temperatures; and
- To conserve water and electricity, wait until you have full loads before washing. Helping your parents separate the families' laundry will really help them and can be a fun chore.


## TAKE THE CHALLENGE: DISCOVER HOW YOUR CLOTHES NEED TO BE LAUNDERED

Now that you have learned how to read the clothing care labels, take this challenge by finding the following items in your closet and record the care instructions.

European Care Symbols and What They Mean:


1.) Where is the care label found?
2.) What is the suggested water temperature for washing garment? $\qquad$
3.) What is the suggested drying temperature or method? $\qquad$

1.) Where is the care label found?
2.) What is the suggested water temperature for washing garment?
3.) What is the suggested drying temperature or method?



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# Activity 10: Repair Your Clothes: Save Money and Look Great 

Caring for My Clothes<br>Project Outcome: Repair clothing for longer life by sewing on missing buttons and other finding.<br>Project Indicator: Repair clothes using information learned.

## TIPPS OUTCOMES:

- Identify/clearly define a problem or situation.
- Identify the parts, steps and necessary
sequence or order to achieve a goal.
- Make the needed effort to carry out a task or a plan.

Many factors influence "garment life." The life of the garment means the length of time you will use the item and it still look good. All of the following factors influence a garment's life: storage, wear, cleaning, textile/fabric properties, garment construction and fashionability. In order for your clothes to last longer, it is necessary to make repairs when you have a missing button, a seam comes apart, or there are other repairs that need to be made.
Have you ever had a garment in need of repair? What happened to the garment? Did you or someone in your family repair the garment?
Often, repairing a garment is a chore that is put off indefinitely. You may not have time or have the right tools. However, making that repair as soon as possible will pay off in the long run. By keeping clothing in good repair, your wardrobe will last longer.

Before you begin repairing, you need to examine the garment and ask yourself:

1. How extensive is the damage?
2. Do I have the skill to repair or do I need to 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?


## Basic Repair/Mending Kit:

Portable box or basket
Hand needles - assorted sizes (3/9)
Stainless steel pins
Safety pins
Scissors
Thread - five basic colors: white or beige, navy, brown, black, medium gray

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

## TYPES OF MENDING/REPAIRING

## Preventive Mending/Repairing:

Sometimes you need to make some initial repairs after buying a garment to give the garment longer life. This may include:

- 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.
- Repairing raveling button holes.
- Checking and resecuring hem.



## Basic Mending/Repairing:

Basic repairs may include some of the above as your garment experiences wear and tear. You may also need to do one of the following: Patching - Suitable for use on areas when damage is large or cannot be darned or mended otherwise.

- Materials that might be considered are similar fabric, contrasting fabric, lace or trim.
- Methods for patching include fusing, gluing, hand or machine stitching, or any combination of the above.


## Tips for Applying Patches:

- Clean garment before patching.
- Purchase iron-on patches that are compatible with the fiber color and texture.
- Patches should be 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.
- By trimming damaged area to a square or rectangle shape, application and stitching are easier.
- Decorative patches can give the garment a new feel.
- 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 handstitched with a backstitch or blanket-stitch.



## 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, buttons, elastic, waistbands, etc. This usually requires more time and some skill.

## Button Repairs:

To prevent the loss of a loose button, resew it as soon as you notice threads that are starting to loosen. Check all other buttons at this time. If you lose a button and cannot find a perfect match, you can take a button from the bottom and place an "odd" button near the hem, where it will be less noticeable. This will keep you from having to replace all the buttons. Check the inside of your garment. Sometimes there will be an extra button sewn inside in case one is needed for replacement. 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. 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 $1 / 8$-inch longer than the thickness of the fabric to allow the buttonhole to lie smoothly when the garment is closed.


## METHODS TO USE WHEN MENDING/REPAIRING

## 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 or tiny zigzag 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 $1 / 2$ inch at each end of the broken seam. If the seam needs reinforcing, stitch another seam $1 / 8$ inch from the original seam, inside the seam allowance.
Hand stitch: Using needle and thread, secure $1 / 2$ 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.
To do a backstitch: With right sides together, following the seamline, bring the needle through the fabric to the upper side. Take a stitchback about $1 / 16$ to $1 / 8$ inch, bringing the needle out again $1 / 16$ to $1 / 8$ 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. Use one of the following techniques to make this repair:

- Make temporary emergency repairs with double-faced mending tape.
- Non-sewing repairs can be made with fusible web strips. A hem repaired with fusible web can be washed and dry-cleaned.
- Hems can be permanently repaired by hand stitching or machine stitching.
- When hand stitching, use a blind stitch for woven, ravelly fabrics finished with seam binding or an overcast edge; a catch stitch for flat hems in pants, knits and heavy fabrics; or a slip stitch for woven fabrics with a turned-over edge.
- Machine stitching takes less time and is sturdier than hand stitching. A machine blind stitch provides an invisible hem. Follow your sewing machine manual for instructions. A straightstitched hem shows on the right side. It is used to hem and finish the raw edge in one step or to add decorative detail.


## 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.
Repair techniques for tears, cuts and holes:
- Repair rips, tears, cuts and holes without sewing by using fusible interfacing, iron-on mending tapes or fabric, or fusible web using a patch of matching fabric. This
 prevents further tearing or raveling and will barely be noticeable on most fabrics.


## CLOTHING REPAIR INVENTORY

Use the information you have learned to take an inventory of the clothes in your closets and drawers to discover if you have repairs to do. Make a plan to repair the items you find with dates you will do the repair. Implement your plan.

| Repair needs found | Name of item(s) | Repair technique <br> to be used | Date item <br> will be mended | Date repair is <br> made |
| :--- | :--- | :--- | :--- | :--- |
| Split seam (hole in <br> seam) |  |  |  |  |
| Button missing or <br> loose |  |  |  |  |
| Hem has come loose |  |  |  |  |
| Hole, ripe or tear in <br> garment |  |  |  |  |



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## Activity 11: Know Your Sewing Machine

## Creating Clothing and Accessories

Project Outcome: Identify the parts of the sewing machine.
Project Indicator: Using sewing machine to create a sewn project.
Operating the sewing machine may seem awkward at first, but with a little help, patience, and practice, you will soon be sewing. Let's get acquainted with the parts of the sewing machine, so your will have a fun experience. All machines are not alike, but they do have the same basic parts, usually located in the same place on the machine.

## Parts of the Sewing Machine:

Balance (hand) wheel-moves the needle up and down as it turns. Can be moved by hand to move needle out of fabric.

Bobbin - holds the thread for the underside of the seam. Bobbins are located in different positions on
various machines and are held in placed by a bobbin case within a bobbin compartment.

Bobbin winder - holds the bobbin while thread is wound from the spool onto the bobbin.
Feed dog - small teeth or bars go up and down to move your fabric as you sew.
Foot pedal - controls how fast or slow the machine sews. It's like the gas pedal on a car.
Needle - carries the top thread and goes up and down through your fabric to make stitches.


Presser foot - holds your fabric in place as you sew.
Pressure bar lever (lifter) - raises and lowers the presser foot.
Reverse stitch lever - used to sew a backstitch at the beginning and end of stitching a seam to lock the stitch in place.
Spool pin - holds the spool of thread in place while you sew.
Stitch length regulator - used to change the stitch length for regular sewing or basting.
Stitch selection panel - used to select specific decorative and/or functional stitches.
Stitch width regulator - determines the width of the stitch, usually used for zigzag stitches.
Thread guides - guide the thread along the machine to hold it in place
Thread take up lever-moves up and down as the stitch is formed and keeps thread at the adjusted tension.
Always have this lever at the highest point when you stop sewing.

## Know Your Sewing Machine Crossword:

Now that you have learned about the parts of the sewing machine and their functions, test your knowledge with this crossword puzzle. Note: Allow a space between words for multiple word


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## Activity 12: Let's Learn to Use a Sewing Machine

Creating Clothing and Accessories<br>Project Outcome: Use sewing machine to sew a simple accessory.<br>Project Indicator: Using sewing machine to create a sewn product.

Using a sewing machine to make clothes, accessories and decorative items can be both rewarding and save you money. At first, operating the sewing machine may seem awkward, but with a little help, patience and practice, you will soon be sewing with ease. Let's talk about the sewing machine first. As you look at various sewing machines you may think they all look very different. However, most sewing machines are more alike than different. They work by taking two threads and knotting them together through fabric. This looping action forms the stitches that hold the fabric together. All sewing machines use two threads. One is the bottom thread or "bobbin" thread, and the other is the top thread. When you first start sewing, you may get your 4-H leader, project leader or parent to thread the sewing machine, but the sooner you learn to thread the machine for yourself, the easier it will be for you to sew with little supervision.

## Threading the Machine:

Looking at the image on the right, you can see an illustration of how the upper thread of the sewing machine is threaded. You will want to use the instruction book from your machine to determine the exact threading sequence. You may also want to look on the internet for a short video that will show you how to thread your machine. All instructions will have basic steps in common.


## Threading the Bobbin:

All sewing machines have a bobbin thread. A bobbin identified to the right (1) will be placed in a bobbin case.
In older sewing machines the bobbin case may be a separate metal case that once the bobbin is placed in it, will be inserted in the base of the machine (Picture 2).
In newer machines, the bobbin will drop into the base of the machine from the top (in front of the needle). It is important that the thread within the bobbin is slipped through a slit in the bobbin case to position it in place (Picture 3).

1


2
bobbin

3



## Beginning to Sew

Next, you will get a chance to "drive" the sewing machine. It is important that you "drive" the sewing machine just as someone learns to drive a car. Begin slowly and watch where you are going. As you operate the machine, don't do anything else, no TV or other distractions. When you are finished, come to an end slowly.

You will want to practice sewing on paper first to get used to sewing. Use the next page as a practice sheet. Follow the instructions on the practice sheet. As you sew, whether clothing, accessories or home decorating items, there are two key steps in successful sewing.

1. Securing your stitches: In order for your stitches to be secure and not ravel out, you need to do a backup stitch at the beginning and end of sewing. In order to do this, you will need to locate the backup/reverse lever on your machine. It is usually on the right side of the machine (see the illustration to the right.). Now to secure your stitches, first start sewing about $1 / 2$ inch along your seam, hold down the reverse lever, and stitch backwards going within $1 / 8$ inch to where you started. Release the lever and continue to sew. When you get to the end of sewing, slow down and sew to within $1 / 4$ inch of the end. Then again hold down the reverse lever and sew backward about $1 / 2$ inch. Release the lever and sew to the end.

2. Turning corners while sewing: Many items you will sew will include corners, such as pillows and scarves. To turn a corner while sewing, begin your sewing and as you approach a corner, slow down. When you get right to the corner, use the big wheel on the right end of the machine called the balance wheel, turning it toward you until the needle is down in your fabric. Now lift up the presser foot and rotate the fabric at a right angle, put the presser foot down and continue sewing. You can see on the square below an example of sewing a square pillow where corners will need to be turned.



Presser foot up


Presser foot down

## More Tips for Success:

3. Always make sure the presser foot is down against the fabric before beginning to sew.
4. Always make sure the thread take-up lever is in the up position at the top of the sewing machine before beginning to sew. If it is not there, use the balance wheel and turn it toward you while holding onto the thread end that is coming out of the needle.
5. Before cutting the thread after you have sewn a seam, be sure the thread take-up lever is at the top of the sewing machine. If not, use the instructions
 in step 4 above to get it there.
6. Always make sure the fabric is about $1 / 8$ inch from the edge of the end when beginning to sew. You must be able to see the fabric under the needle. This will prevent the thread from knotting up and create a neat flat seam.

## Practicing your Sewing (Practice Sheet):

In order to be comfortable with sewing, you need to practice, practice and practice! So before you take your first stitches on fabric, follow the instructions below and practice sewing using the following paper.
Practice control of your sewing machine by sewing on the straight lines.

1. To do so, slip the paper underneath the presser foot and line up the needle with the end of the line. You can lower the needle into the paper by using the balance wheel on the right end of your machine, turning it toward you.
2. Lower your presser foot and press on the machine foot control slowly.
3. Guide the paper to keep the stitches straight by laying your hands on top of the paper (not too close to the needle) and move the paper slightly without pressing down too hard. When you get close to the end of the line, go a little slower.
4. When you stop, be sure that the thread take-up lever at the top left of the sewing machine is in the up position. If not, turn the balance wheel toward you until the lever is at the top.
5. Pull the paper to your left (it should slide out easily) and cut your threads about 2 inches from the needle.

After you have sewn on a few of the lines and have fairly straight stitches, try sewing a few lines, securing your stitches at the beginning and end of each line. Use the instructions on the previous page to do this.
Practice turning corners on the rectangle below using the instructions on the previous page. Now that you have learned to sew following a line, let's take it one step further. Many times when sewing accessories, decorative and craft items, the seams will be $1 / 4$ inch wide. So to practice this, take the piece of paper and line the edge of one side with the inside edge of the presser foot. Begin sewing, keeping the edge of the paper aligned with the inside edge of the presser foot. This will create a stitching line that is $1 / 4$ inch from the edge. Do this on all sides.

$\square$

## Putting to Practice What You Have Learned: Make a Sash!

Supplies needed: One yard of fabric (36 inches) and matching thread. This will make a sash/belt about 71 inches long. You can make your sash/belt longer or shorter by adjusting the length of fabric.

## Instructions:

1. Cut 1 inch off the selvage edge of the fabric.
2. Cut a strip of fabric along the remaining edge that is 10 inches wide and the length of the fabric.
3. Cut this piece in half lengthwise.
4. Pin the two pieces together using one end of each, putting right sides together.
5. Stitch $1 / 4$ inch from the edge. Press this seam open.

6. Fold the fabric lengthwise, right sides together, matching the edges. Press a crease in the fold and pin the long edge in place.
7. On both ends, mark and cut a triangle from each end.
8. Begin at one end and sew on the slanted edge $1 / 4$ inch from the edge. Be sure to
secure your stitching by backstitching as you begin sewing.
When you get to the corner, turn the corner and continue sewing.

9. Sew to within 3 inches of the middle of the sash along the edge. Secure your stitching by back stitching. Now sew the seam starting at the other end of the sash. Sew to within 2 inches of the opening. When you finish, you will have a 2 -inch opening along the edge of the sash.
10. Clip excess fabric from the corners and turn the piece right side out through the opening. Slide a knitting needle or similar pointed edge to the end of the sash after it is turned and gently push to create a point. Do this on both ends.
11. Press well, folding in the raw edge at the opening.


Use a needle and hand stitch the opening closed.
To complete this activity, have someone take a picture of you sewing your sash and then take a picture of you wearing your sash. You can use this to make a poster for an exhibit or in your portfolio.

## Activity 13: Accessorize Your Wardrobe: Make an Infinity Scarf

## Creating Clothing and Accessories

Project Outcome: Use sewing machine to sew a simple accessory. Project Indicator: Use sewing skills to sew an infinity scarf.

As you learn to sew, you will find that you can make your own accessories to give a real pizazz to your wardrobe. Try this infinity scarf and you will find how easy it is and want to make more.

## TIPPS Outcomes:

- Identify the parts, steps, and necessary sequence or order to achieve a goal.
- Use basic reading, writing, arithmetic and mathematical skills.
- Make the needed effort to carry out a task or a plan.


## Directions:

## SUPPLIES YOU WILL NEED:

1 yard of lightweight woven fabric (2 yards to make a double wrap scarf)
2. Fold the fabric in half putting longest edges together, right side (pretty side) facing together.
3. Pin the edges together. Sew the long side together $1 / 2$ inch from the edge.

4.

4. Press the seam open and then to one side.
5. Stick your hand through the tube you've just made and grab the other end. Pull it through the tube so that both rough ends meet.
6. Line up these ends making sure they are even, then pin the two edges together.

7. Sew what you have pinned with a $1 / 2$-inch seam allowance almost all the way around. Stop sewing and leave about 4 inches unsewn so you can turn the infinity scarf right-side out.
8. Pull the scarf back through the hole that you left so it's right-side out.
9. Close the hole using a hand slip stitch or top stitch using sewing machine.
10. Enjoy!

> Slipstitch
9.

10.


## What you can do with what you have learned:

-Have someone take a picture of you sewing your scarf.
-Have someone take a picture of you wearing your scarf.
-You can use this to make a poster for an exhibit or in your portfolio.
-Help your 4-H leader teach a class on sewing.

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## $1-2$ years in project

## Activity 14: Accessorize Your Wardrobe: Make a Purse

Creating Clothing and Accessories<br>Project Outcome: Use sewing machine to sew a simple accessory. Project Indicator: Use sewing skills to sew a placemat purse.

## TIPPS Outcomes:

- Identify the parts, steps and necessary sequence or order to achieve a goal.
- Use basic reading, writing, arithmetic and mathematical skills.
- Make the needed effort to carry out a task or a plan.

Sometimes you need that perfect accessory to complete an outfit. Have you ever thought of making your own purse? There are many simple patterns and instructions available that you can find on the internet or in a fabric store.
Try these instructions that use a quilted placemat. While making this, you will learn to use a zigzag stitch and
 sew on velcro.

## Instructions:

SUPPLIES YOU
WILL NEED:
-Quilted placemat
-Matching $11 / 2^{" \prime}$
wide grosgrain
ribbon
-Matching
Thread
-Velcro

- Large button
-Hand sewing
needle


1. Fold placemat lengthwise with wrong sides together. Mark 1-inch sewing line on folded edge. Hint: In this example, the dark side is the wrong side and light side is the right side (outside).

2. Press seam open.

3. Sew using a regular stitch on marking. Cut on folded edge to open up seam.
4. Trim each side of seam allowance down to 1 / 4 inch.


5. Hand sew a decorative button or other ornamentation on the outside as shown.

## What you can do with what you have learned:

-Have someone take a picture of you sewing your purse.
-Have someone take a picture of you holding your purse.
-You can use this to make a poster for an exhibit or in your portfolio
-Help your 4-H leader teach a class in sewing making this purse.

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## Activity 15: Know Your Sewing and Pressing Equipment



Project Outcome: Identify sewing equipment and their function.
Project Indicator: Using sewing tools to create a sewn item.

Using the right tools can make sewing fun and easy. A sewing box or basket to hold your tools keeps tools to create a sewn item.

## Cutting Tools:

Two basic types of cutting tools are used in sewing. Scissors 3-inches long are used for clipping threads, cutting corners and trimming seams. Shears are used for cutting fabric. They are larger and vary in length from 6 to 12 inches. One handle is larger than the other, which will help you keep the fabric flat on the table's surface when cutting out a pattern/fabric. It also helps you to cut more accurately. There are shears for both right and left-handed people. Take care of your scissors and shears. Don't cut paper because it makes them dull.


## Pin Cushion

A pin cushion helps you keep needles and pins within easy reach when you sew. There are many kinds of pin cushions including those that can be worn on your wrist. You can also make your own.


## Pins

Pins are needed to hold fabric together for sewing and patterns to fabric for cutting out. Silk pins are fine, sharp pointed and are great to use for most light and medium-weight woven fabrics. Ballpoint pins are best to buy when working with knits since they have rounded points. You can buy pins with a flower head, which are easy to pick up, plastic bead head, which are also easy to see, as well as flat silver heads that are best when you are going to be pressing an area that has been pinned.

## Needles

Most of your sewing will be done on the sewing machine, but there are times when you need to sew by hand like when sewing on a button. There are different kinds of needles, ranging in size from 1 (coarse) to 12 (fine).


## Tape Measure

You will need a 60 -inch, metal-tipped tape measure. Choose a heavy coated fabric tape that won't stretch.

## Seam Gauge

A small metal 6-inch seam gauge is handy for measuring short lengths. The slide on the gauge makes it easy to get even measurements.

## Seam Ripper



Marking Tools
Pattern markings are a guide for sewing and need to be transferred to the wrong side of fabric. The most common used marking tools are marking pens, chalk pencils, and tracing paper and tracing wheel. Pens come in blue that are removed by water and purple that vanishes within 12-24 hours.

## Pressing Equipment:

Good pressing is as essential to the appearance of the finished garment as good construction. Using the right equipment will make your pressing easy.


Seam Roll - used to press the seam line, preventing the seam edges from pressing through to the right side of the garment.


Pressing Ham (cushion) is used when pressing darts and curved seams.


Pressing using a seam roll.


Sleeve Board is a small ironing board used to press the underarm seam of sleeves.


Point Presser is a narrow wooden board that tapers to a point for pressing open seam allowances in points and corners such as collars and cuffs.


Needle Board, constructed of fine steel wires, is used to prevent crushing napped and pile fabric such as corduroy and velvet.

Pressing is the process by which the iron is raised and lowered on the fabric in a series of up-and-down motions.
-First press over seam line (to embed stitches).
-Then press open.
-Press each stitched seam before crossing with another seam.



## Test Your Knowledge of Sewing Equipment

Now that you have learned about different sewing equipment and their functions, test your knowledge with this crossword puzzle. Note: If the answer has two words, there is no space between the words.


## Across

4. Used to transfer pattern markings to fabric
5. Used when pressing curved seams
6. A heated item used to press seams
7. A metal object needed to hand sew

## Down

1. The points of pins used for woven fabric should be $\qquad$
2. Used to cut threads
3. One handle is bigger than the other and used to cut fabric
4. Used when pressing a seam to prevent the seam edges from showing on the right side

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# Activity 16: Hand-Sewing Stitches that You Should Know 

Creating Clothing and Accessories<br>Project Outcome: Learn and apply hand-sewing techniques.<br>Project Indicator: Skills used to make a pin cushion, hem, or mend a garment, sew on a button or hook and eye.

Sometimes it is necessary to use hand-sewing techniques when sewing a garment, mending an item, sewing on a button or hook and eye, or creating an accessory or craft project. The more handsewing stitches you know the more your project will look polished and amazing for yourself or to give someone as a gift.

Threading a Needle - pull off a piece of thread the length of your arm. Cut the thread at a slant. Bring the thread through the eye of the needle. Tie a knot in the end of one of the threads. Now you are ready to sew.

## TIPPS Outcomes:

- Understand the meaning of the information.
- Understand the methods and skills for learning.
- Use basic reading, writing, arithmetic and mathematical skills.
- Make the needed effort to carry out a task or a plan.

Hem Stitches - there are several different stitches that can be used in hemming a garment so the stitches won't show on the right side.

Slip Stitch - to do this, slip the needle through the folded edge of the hem at the top (or hem tape). Pick up a thread from the garment underneath. Repeat this, spacing the stitches evenly about $1 / 4$ inch apart.


Vertical Hemming Stitch - stitches are worked from right to left. 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 $1 / 4$ to $3 / 8$ inch to the left. Short, vertical floats will appear between the stitches.


Catch Stitch - a catch stitch has a criss-crossing of the thread which adds strength. To do this stitch, with needle pointing to the left, take up a very small bit (a few threads) of the garment fabric just above the fold of the hem. Try to make your stitch very small as it will be visible from the right side. Pull up thread. Move the needle $1 / 4$ inch to the right. Take up a small amount of the hem fabric with the needle still facing to the left. Your
 stitching will look like little "x's." Repeat this across the hem.

## All-Purpose and Decorative Hand Stitches

Running Stitch - can be used for basting, gathering or mending. The running stitch is made by weaving the needle in and out of the fabric.

Back Stitch — Make a $1 / 8$-inch stitch at the stitching line's beginning. Make a second stitch of the same length on top of the first, and pull the thread through. Make a $1 / 8$-inch stitch on top of the last stitch. Pass the needle through all layers and out again 1/8inch ahead of the stitch. Bring the needle up closer to the previous stitch to make shorter stitches. Continue.

Blanket Stitch — this is a decorative stitch but is also useful when sewing a hook and eye onto a garment. For the hook and eye application, use sewing thread that matches your garment. For a decorative project, use three strands of embroidery floss. After securing thread, bring needle to right side. Hold thread loop down with thumb and bring needle through to front and over thread. Pull up the stitch. Continue pattern, making stitches $1 / 8$ to $3 / 8$-inch apart.

Satin Stitch - work straight stitches across the shape as shown. Care must be taken to keep a consistent edge.

French Knots - (A) Bring thread to the front of the fabric. Hold thread down with left thumb and wind thread twice around the needle. Still holding thread firmly, twist the needle back to the starting point and insert it close to where the thread first emerged. (B) Pull thread through to the back and secure for a single French knot or pass on to the position of the next stitch.

## Sewing on a Hook and Eye Using the Blanket Stitch

Step 1: Place the hook inside the garment on the opening, tip of the hook flush with the opening edges Sew in place with small blanket stitches.

Step 2: Keep the eye on the inside of the garment on the other side of the opening. Ensure that the opening edges are exactly in the middle. Mark the place with a pen or a pin. Now sew the loops of the eye with blanket stitches. Ensure that the hook is straight and not tilted to any side.

## Make a Festive Pin Cushion Using Decorative Hand Stitches



## Supplies you will need:

Plastic cap from bottled juice

Felt-brown, red, black
Embroidery floss-black, white, brown (separate and use 2 strands of floss when hand sewing)
Embroidery Needle


1. Lay juice lid on brown felt and trace the shape. Cut along line.
2. Cut a brown felt strip a little wider than the cap's height and long enough to wrap around the cap and overlap. Using brown embroidery floss, slip stitch along overlap. Put base circle in place and slip stitch around connecting the two pieces of felt.
3. Create the top: Cut a square that is twice the diameter of the base. Trim corners to make a circle. Use a running stitch around the outer edge of the circle and pull together to gather.
4. Fill the gathered circle with fiberfill to create a firm ball. Stuff the "pouch" into the cap.
5. Use black floss to sew the ball to the base around the upper edge of the base using a blanket stitch.
6. Cut from black felt a triangle with all sides approximately $11 / 2$ inches. (This will depend on the size of your bottle cap.) Use a slip stitch and black floss to secure in place on main part of ladybug to create face.
7. Create a black line from the tip of the triangle down the back by laying a piece of black embroidery floss in place and securing it with a vertical hem stitch.
8. Cut four small circles out of black felt for spots and slip stitch to the body of the ladybug in random places.
9. Use white embroidery floss and create eyes in triangle using French knots.
10. Create antenna by using a running stitch and French knots at the end.

$2 \& 5$

$6 \& 7$

$8 \& 9$

Pin Cushion pattern from: Pretty Little Pincushions, Susan Brill, Editor
What you can do with what you have learned:
-Have someone take a picture of you sewing your pin cushion.
-Have someone take a picture of you holding your pin cushion.
-You can use this to make a poster for an exhibit or in your portfolio
-Help your 4-H leader teach a class in hand sewing.

## Activity 17: Sewing on a Sew-Through Button



## Creating Clothing and Accessories

Project Outcome: Learn and apply hand-sewing techniques.
Project Indicator: Skills used to sew button on garment.

After you have learned basic hand-sewing techniques, practice what you have learned by sewing a button on a garment. You might find a button that is loose, so to fix it cut it off and use the following steps to secure it to the garment, or you may have a garment that has a missing button.


## Instructions:

1. Mark the place the button is to be sewn with a pin or pencil mark.
2. Thread your needle, using a double thread. Tie a knot in the end.
3. Fasten the thread for sewing on the button on the right side of the garment at the location where the button is to be attached. Make one stitch through the

## TIPPS Outcomes:

- Understand the meaning of the information.
- Understand the methods and skills for learning.
- Use basic reading, writing, arithmetic and mathematical skills.
- Make the needed effort to carry out a task or a plan. holes in the button.


4. Place an object such as a toothpick or pin on top of the button to serve as a guide for the size of the shank.

5. Sew on the button with each stitch passing over the object (toothpick or pin). (Sew about four times through each hole.) Put the needle through one of the holes in the button, slanting the button in order to slip the needle between the bottom of the button and the fabric.

6. Remove the object. The button will be loosely sewn to the garment. Pull the button up. Wrap the thread from the needle around the threads that hold the button to the fabric (three to four times), forming a shank for the button.

7. Bring the needle to the wrong side of the garment and fasten thread securely with several small stitches that do not go through to the right side.


## What you can do with what you have learned:

-Have someone take a picture of you sewing a button. -You can use this to make a poster for an exhibit or in your portfolio.
-Help your 4-H leader teach a class in hand sewing.

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## Activity 18: Let’s Make an Elastic Waist Skirt



Creating Clothing and Accessories
Project Outcome: Sew an elastic-waist garment.
Project Indicator: Completed elastic skirt.

## TIPPS Outcomes:

- Identify the parts, steps and necessary sequence or order to achieve a goal.
- Use basic reading, writing, arithmetic and mathematical skills.
- Make the needed effort to carry out a task or a plan.

One great way to practice your sewing skills is to make a gathered skirt or pajama pants. To make a simple elastic skirt you can:

1. Buy a pattern and use the instructions included;
2. Look on the internet for downloadable instructions; or
3. Follow the simple instructions below.

You may need help from your leader if you have only beginning sewing skills.

Refer to this picture of the parts of fabric as you follow the instructions in \#1.


SUPPLIES YOU WILL NEED:

Woven Fabric
(Fabric, the length you want your skirt plus 3
inches) between $1 / 2$
and $2 / 3$ yard

Matching Thread

3/4 inch Elastic
measurement tape
Large Safety Pin
Sewing Scissors

Seam Gauge
Sewing Machine
Water Soluble Marking
Pen

## Instructions for Making a Gathered Skirt

1. a. Put selvages (finishes edge) of fabric together, right sides (pretty side) together and pin along selvage. (Remember, the length of your fabric is the finished length you want for your skirt, plus 3 inches.)

b. Make sure the cut ends are perpendicular to the selvages. If not, cut so they are perpendicular.
c. Take your waist and hip measurements. Use the measurement that is the largest and add 4 to 5 inches depending on how loose you want your skirt.
d. Measure from the folded edge toward the selvage half the calculated amount in " c " above and mark on the side closest to the selvage. Mark this amount all along the selvage making sure you are parallel to the selvage.
e. Cut off the excess fabric at the marks.
2. Pin the edge that was just cut with pins perpendicular to the edge and sew $6 / 8$ inch from the edge. Back stitch at beginning and end.
3. Press seam open. On each seam allowance edge, stitch a straight stitch close to the edge of each seam for a seam finish to keep the seam allowance from raveling. Note: only sew on the seam allowance, one layer of fabric.
4. At one end of the seam, sew the seam allowance in place for about 3 inches as illustrated through both thicknesses of fabric. This will be the top edge of the skirt.
5. Press the top edge of the skirt under toward the wrong side $1 / 4$ inch and sew in place.
6. Using a seam gauge and marking pin, mark $11 / 2$ inches from folded edge on right side of fabric; fold on markings toward the wrong side of the fabric; press and pin in place, putting pins perpendicular to edge about 3 inches apart.
7. Sew along the inside edge of fold making a casing (back stitching at the beginning and end of stitching), leaving a 2 -inch opening at the seam for elastic. Be sure to take the pins out as you sew before sewing over them.

8. Cut elastic the measurement of your waist.
9. Use a safety pin, attaching it to one end of the elastic, and pull the elastic through the casing.
10. Pull both ends of the elastic from casing opening in order to overlap the elastic 1 inch. Sew the overlapped areas of the elastic together using a zigzag stitch.
11. Straighten out the area at the opening in the casing and sew closed.

12. 
13. Stitch a line of stitching $1 / 4$ inch from the bottom of the skirt. (You can mark this first or use the guide on your sewing machine to get the correct measurement.) Fold fabric over on sewn line and press. Stitch this folded area in place.
14. 
15. Using a seam gauge and marking pen, mark 1 inch from the folded edge on the right side of the fabric for the hem.
16. Fold on markings and press. Pin in place putting pins perpendicular to edge about 3 inches apart.


14,15
15. Sew along inside folded edge.
16. Press hem and rest of skirt. It's ready to wear! Enjoy!


## What you can do with what you have learned:

-Have someone take a picture of you sewing your skirt.
-Have someone take a picture of you wearing your skirt.
-You can use this to make a poster for an exhibit or in your portfolio.
-Help your 4-H leader teach a class in sewing making this skirt.

## Activity 19: Let's Make Pajama Pants

## Creating Clothing and Accessories

Project Outcome: Sew an elastic-waist garment.
Project Indicator: Completed pajama pants.


One great way to practice your sewing skills is by making a pair of gathered-waist pajama pants. To make simple pajama pants you need to buy a pajama pants pattern, using the size that most closely corresponds to your hip measurement. Try to find a pattern where there are no side seams.

Below you will find tips that will help you read the instructions that come with your pattern as well as tips that will make your pajamas sturdy and last longer. You may need help from your leader if you have beginning sewing skills.

## TIPPS Outcomes:

1.Identify the parts, steps and necessary sequence or order to achieve a goal.
2. Use basic reading, writing, arithmetic and mathematical skills.
3. Make the needed effort to carry out a task or a plan.

Tips for Making Pajama Pants


## Fabric Lingo

In order to follow directions for making any garment, you need to know terminology used to describe fabric. Here are some definitions:
Selvage Edge: Finished edge of the fabric.
Cut Edge: The raw edge of the fabric.
Lengthwise Grain: Is parallel to the selvage and the strongest direction of the fabric. Most pattern pieces will have a corresponding lengthwise grainline. This grainline should line up parallel to the selvage so that your pajama pants will hang correctly when you wear them.

Crosswise Grain: Is perpendicular to the selvage. Even though most fabric is on-grain, sometimes fabric is off-grain, and this grainline is not perpendicular to the selvage. You can work with someone and pull the opposite corners of the fabric (on the bias) to possibly straighten the grainline.
Bias: This is the stretchy part angle of the fabric. It is sometimes used to create bias binding to sew around curved edges. Fabric Wrong Side: This refers to the side of the fabric that is the back side and in printed fabric, the side that is not pretty.

## Pinning Fabric to Sew

Before sewing seams together, instructions will tell you to pin the seams in place. To make your sewing easy, pin perpendicular to the edge every 2 inches, with the point of the pin to the inside. This will make it easy for you to remove each pin as you come to it. Never sew over pins.

## What are Notches?

Notches are diamond shapes on the pattern that may be one, two or three placed together. They help when matching garment pieces. Make sure to cut the diamond shape when cutting out the pattern pieces or mark them for later use.


## Seam Finishes

When sewing with woven fabric, seam finishes need to be applied after the seam is sewn. This keeps the seam from raveling and will make your garment last longer. A seam finish is a specific stitch that is done to the single thickness of fabric on the edge of the seam allowance on the inside of the garment.


## Here are Two of the Easiest Finishes to Use:

Straight Stitch - Stitch a straight stitch close to the edge of the seam allowance through a single thickness. If the fabric is lightweight, it is not advised to use this finish.

> Zigzag Stitch — Stitch the zigzag stitch close to the edge of the seam allowance through a single thickness. Try out different widths of zigzag stitches to find one that doesn't bunch up the fabric before performing the stitch on the seam allowance.

## Sewing and Finishing the Crotch Seam

Curved edges of a garment, such as the crotch seam of pajama pants, need special attention because of the stretch in the area and the stress on the seam. For the durability of your garment, follow these instructions:

1. Pin right sides together.
2. Stitch $5 / 8$ inches from the edge.
3. Sew another row of stitching $1 / 4$ inches from the edge.
4. Sew a row of zigzag stitches in between the two straight stitches.
5. Cut off the excess fabric on the edge.


NOTE: Refer to instructions in Let's Make an Elastic Skirt Activity for making a casing and inserting elastic for the top of the pajama pants.


## What you can do with what you have learned:

-Have someone take a picture of you sewing your pajama pants.
-Have someone take a picture of you wearing your pajama pants.
-Enter your pajama pants in the fair or county fashion review.
-You can use your pictures to make a poster for an exhibit or in your portfolio.
-Help your 4-H leader teach a class in sewing making pajama pants.

# Activity 20: Developing Your Sewing Skills - Let's Make a Square Decorative Pillow 

Creating Clothing and Accessories<br>Project Outcome: Sew a non-garment item.<br>Project Indicator: Use wing skills to sew a finished product.



TIPPS Outcomes:

- Identify the parts, steps, and necessary sequence or order to achieve a goal.
- Use basic reading, writing, arithmetic and mathematical skills.
- Make the needed effort to carry out a task or a plan.

Decorative pillows are the perfect way to add a personal touch to any room. By making a pillow you will learn to select fabric suitable for making a pillow and the color and design that matches your room décor. You will also learn to sew straight lines and turn corners on the machine as well as hand sewing techniques.

STEP 1: Select your fabric and filling (or pillow form) for your pillow.

Tips to remember when selecting fabric: Select a mediumweight woven fabric that is either solid or has a design that you like. Cotton/polyester blends work well. Stay away from designs that are stripes, which are more difficult for a first project.


## SUPPLIES YOU WILL NEED:

-Woven Fabric: Amount depends on the size of the pillow (if making a 14 -inch pillow, buy $1 / 2$ yard of fabric)

- Matching Thread
- Sewing Scissors (Shears)
- Polyester fiberfill or Pillow form
- Sewing Machine
- Hand-Sewing Needle
- Water-Soluble Marking Pen

STEP 2: Cut two squares of fabric that are $1 / 2$-inch bigger than your finished pillow measurement on each side. (Example: If you want to make a 14 -inch pillow, cut 15 inch squares which allows for $1 / 2$-inch seam allowance on each side.)


STEP 3: Place the two squares so that they are on top of each other and so that the brighter side of each square faces the other square's brighter side. (This is called "putting the right sides together.") Pin around the edges to hold fabric in place. Mark each corner $1 / 2$ inch from edge to make it easier when sewing.


STEP 4: Now you are ready for the fun part.
-Begin sewing on one side about $1 / 3$ of the way from a corner, beginning at the edge as shown in the diagram. Do a back stitch at the beginning and end of sewing to lock the stitch in place. Sew around three sides of the fabric squares using a $1 / 2$-inch seam allowance. (A seam allowance is the measurement from the edge of the fabric to where you want the sewing machine to stitch the fabric.) Be sure to take the pins out before sewing over them.
-Make sure that when you come to the corners to put your needle into the fabric, lift up the pressure foot (the machine part that is holding the fabric in place), turn the pillow so you can continue stitching down the next side, put the pressure foot down, and continue sewing.
-On the fourth side of the squares, sew a third of the way in from that corner then turn and stitch to the edge of the fabric as shown. This leaves you an open space in the middle of that side.


STEP 5: Trim the corners as shown in diagram to eliminate bulk when turning the pillow right side out. Be careful not to cut
 through.

STEP 6: Use the space that is left open to turn your pillow right side out. Use closed scissors and put them to the inside of your pillow and push the corners out so they make nice points.

STEP 7: Finally, you are ready to finish your pillow. Stuff it firmly with polyester fiberfill or your pillow form.


STEP 8: Hand stitch the opening closed folding in the raw edges. Enjoy!


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# Activity 21: Let's Sew an Autograph Bear/Bunny 

Creating Clothing and Accessories<br>Project Outcome: Sew a non-garment item.<br>Project Indicator: Use sewing skills to sew a finished product.

Supplies you will need:
$1 / 4$ yard muslin fabric or woven print fabric Matching thread
Hand-Sewing Needle
Polyester Fiberfill

Sewing Scissors (Shears)
Water-Soluble Marking Pen
Sewing Machine

## TIPPS Outcomes:

- Identify the parts, steps and necessary sequence or order to achieve a goal.
- Use basic reading, writing, arithmetic, and mathematical skills.
- Make the needed effort to carry out a task or a plan.

1. Find a bunny or bear picture in a coloring book or from your leader, or search on the internet for "simple teddy bear patterns to sew" images.
2. Cut out picture around the edges to make a paper pattern.
3. Fold fabric with wrong sides together, creating a double thickness.
4. Pin your paper pattern onto the fabric.
5. Mark around the edge of the pattern using a water-soluble marking pen.
6. Remove the paper pattern and pin the fabric to hold the pieces together while sewing.
7. Stitch the marking using a regular stitch length, leaving a 2-to 3-inch opening for stuffing. Be sure to back stitch at the beginning and ending of stitching.
8. Cut around bunny or bear $1 / 4$ inch from the sewing line.
9. Clip into the seam allowance every $1 / 4$ inch around the bear or bunny. Do not clip through the stitching. This will give your critter a grayed edge once
 laundered.
10. Wash and dry for frayed look.
11. Stuff with polyester fiberfill until desired fluffiness.
12. Stitch the opening closed either by hand or sewing machine. If using a sewing machine, use a zipper foot.
13. Now, your bear or bunny is ready for your friends to autograph using a fabric pen. Enjoy.


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## Real. life. Solutions."'

# Activity 22: Learning about Fabrics - Fabric Weave and Knit Structures 

Understanding Textiles (Fabrics)<br>Project Outcome: Identify the differences in woven and knit fabric.<br>Project Indicator: Identify fabrics as either woven or knit structures, completing at least one activity.

## TIPPS Outcomes:

-Use the senses to gain new information or find new ways to use information.
-Make appropriate use of equipment, tools, and technology.

As we select clothes to wear on any given day, there are lots of reasons we pick a specific garment. One important reason is for comfort. The fabric the garment is made from can determine the comfort. Knowing how the fabric is made can help you know how it will feel, if it will be durable, and if it will stretch. In this activity you will learn the difference between woven and knit fabric as well as specific construction techniques.

Weaving fabrics is an old art, taking place at least 9,000 years ago in the Middle East. While the speed of weaving has increased dramatically in recent years, the basic process and patterns have remained the same.

Woven fabrics can be characterized generally by their stability, with little give (elasticity). This means that you need closures such as buttons, zippers or snaps to get in and out of garments made from woven fabrics.

Weaving is the interlacing of yarns. Warp yarns run vertically in fabric and are the strongest yarns. Filling yarns run the width of fabric.

## Woven Fabrics

Plain weave - Interlacing warp and filling yarns, over one and under one. This is the most common weave used in woven fabrics. Common plain weave fabrics: chiffon, calico, gingham, muslin


Plain rib weave -
woven into smaller warp broadcloth, faille


Unbalanced plain weave with larger filling yarns yarns. Common plain rib weave fabrics: taffeta


Plain basket weave - Two or more warp and/or two or more filling yarns used side by side as if one yarn. Common plain basket weave fabrics: monk's cloth, canvas cloth


Twill weave - A diagonal effect is created by weaving over two and under one, then beginning the next row one yarn over. This is the most durable of the weaves. Common twill weave fabrics: denim, gabardine, herringbone twill


Satin weave - Yarns float over several yarns before going under one, creating a high luster (shine). This fabric is typically used in dressy shirts, formal dresses and wedding gowns. Common satin weave fabrics: satin, sateen


Dobby weave - Small, repeated, geometric patterns. Common dobby weave fabrics: bird's eye, pique, waffle cloth


Jacquard weave - Complex weave with elaborate patterns. Fabrics made of this weave are used in formal gowns as well as draperies and to upholster furniture. Common jacquard weave fabrics: brocade, damask


Woven pile weave - Has body and depth.
Wrap Piles - Extra yarn inserted in warp direction. Common wrap pile weave fabrics: velvet, terry cloth

## P8

Filling Piles - Extra yarn inserted in filling direction. Common filling pile weave fabrics: velveteen, corduroy


Slack tension weave - By holding some warp yarns tight and others loose, a puckering effect is created. Common slack tension weave fabric: seersucker


## TEST YOUR FABRIC KNOWLEDGE

Circle T (True) or F (False) for each of the sentences below.

1. Denim fabric is made using a satin weave.
T F
2. Plain weave is the most common weave used in woven fabric.

T F
3. Velvet is an example of a pile weave fabric.

T F
4. Woven fabric generally has a lot of stretch.

T F
5. The jacquard weave is used to make brocade fabric.

T
F

## Knit Fabrics

Most everyone wears garments of some kind made from knit fabrics, from T-shirts to underwear. But why do we like knit fabrics? Knit fabrics are known for their stretch. This makes garments very comfortable to wear. Knit fabrics also do not wrinkle as much as woven fabrics, are softer, and they generally cost less to make.

Knit fabrics are formed by interloping yarns. As you learn about fabrics that are made through the knit process, you will learn that some of these fabrics do not stretch very much while others have lots of stretch.

The lengthwise loops of knit fabric are called the wale, while crosswise loops are called the course.

Plain (Jersey) knit - Can be identified by the vertical/diagonal loops on the surface. Typical garments made of plain knit: T-shirts, knit dresses, hosiery


Rib knit - Can be identified by deep ridges on the fabric surface. The rub knit is one of the knit fabrics with the most stretch. Typical garments made from rib knit - cuffs and collared bands on sweatshirts, some sweaters, knit hats, tops of socks.


Double knit - Is characterized as having an interlocking extra set of yarns, which makes it thicker and less stretchable. All kinds of garments can be made from double knit fabric.


Tricot knit - Is very thin, usually made from synthetic fibers, and does not stretch very much. Typical garments made from tricot knit: lingerie, nightwear, blouses, dresses


Raschel knit - Is an open knit structure, often with visible holes, which makes it a less sturdy structure. Some raschel knit has closer loops and is thicker fabric. Typical garments made from raschel knit: any lace garment, some shirts and athletic wear


## Activities to Do

Now that you have learned about different types of fabrics, share this with your classmates, family or fellow 4-H'ers. Here are some ideas:

- Examine the fabric of some of the garments you wear and identify the fabric as woven or knit. Use a magnifying glass to make it easier.
- Visit a fabric store. While there, find and identify fabrics of the different weaves and knit structures. Be sure to take your magnifying glass with you.
- Research online information about woven and knit fabric characteristics.
- Find someone in your community who weaves or knits fabrics and learn about the process.
- Create a poster that identifies various woven and knit fabrics using fabric samples. Display this at a county fair or present to fellow 4-H'ers at a meeting or project group.


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## Real. life. Solutions."

# Activity 23: How Clothes Get Their Color 

Understanding Textiles (Fabric)

Project Outcome: STEM - Identify the dyeing process for various fabric types.
Project Indicator: Tie-Dye project completed.

## TIPPS Outcomes:

- Understand the meaning of information.
- Use the senses to gain new information or find new ways to use information.
- Make the needed effort to carry out a task or a plan.

When we buy a garment or home decorating item, there is one factor that influences us the most in what we purchase. What do you think it is? Color. Have you ever looked at all the different colors of clothing that are available and wondered how the color gets there?
Fabrics may in the raw stage (like wool or cotton) have a slight color but without dyes, our clothes would indeed be boring. In this activity you will learn that:
--Colors in fabrics can come from dyes.
--Some dyes come from nature and some are produced in a laboratory.
--Dyes can be added to fabric at many different stages of production.


Natural dyes come from things in nature like plants, insects and minerals. A grass stain is an example of a dye from nature. Other examples include using roots, flowers, leaves and berries such as: blackberries, marigolds, onion skins, red cabbage, indigo, walnut hulls and berries. Tea can also be used as a dye. Many different colors can be achieved from nature.

Until 1856 that was the only way to color fibers. In 1856, the first synthetic or laboratory produced dyes were developed. Today almost all clothing and home decorating items you buy in stores are dyed with synthetic dyes


## How are fabrics dyed?

Think of a dye being like Jell-o particles. Once they are put in solution (sometimes water), they dissolve and soak through the fiber, becoming part of the fiber or yarn. A chemical reaction makes them part of the fiber or yarn.


Dyes can be added at most any stage of the textile production process. This includes during dyeing the fibers (fiber dyeing), dyeing the yarns (yarn dyeing), dyeing the fabric or piece goods (piece dyeing), or the end product. The earlier the dyeing, the better the color penetration (even color and longest lasting). Manufactured fibers can even be dyed as they are being made. This happens by color being added to the solution being used to make the fiber. Natural fibers cannot be dyed this way. Some fibers may absorb dyes better than others.

Most fibers that we say are comfortable to wear (example: cotton) also breathe or absorb moisture and accept dyes well because of their high absorbency. These we would say "take" the dye better. Others that do not absorb moisture well (example: polyester) will not accept dyes well unless treated specially for this purpose or dyed by special ways and using special dyes.

## Creating Patterns on Fabric

In addition to dyeing fibers to make solid colors, we also wear clothes that have different patterns and designs on the fabric. There are many different ways to make designs. Here are a few:
A. Dye can be applied in certain patterns by using a "direct" dye technique. Block printing is an example of this technique where the dye is applied to the block and it is "stamped" on the fabric. A roller printing machine will do the same thing with the design being raised on the roller, the dye applied and then rolled over the fabric. This includes making paisley, calico and floral patterns.

B. Tie-dye is a "resist" type of fabric dyeing where a pattern of color is made by preventing the dye from reaching some areas of the fabric while dyeing others.


## Be Creative Through Tie-Dye

Have you ever wanted to wear your own designed clothing? You can through the tie-dye project. Folding, tying, crumpling or otherwise preparing the fabric inhibits the flow of the dye to some areas. Examples follow of how to make designs. So be sure to gather your supplies.


The way the fabric is folded or tied with a rubber band and where the colors are squirted will determine the resulting design. With experience, the end result can be predicted and controlled to some extent, but surprise is part of what makes tie-dye an exciting and interesting art form - and there will be plenty of surprises.

## Where did tie-dye come from?

Contrary to popular belief, tie-dyeing was not invented in 1960s America. Different forms of tie-dye have been practiced in India, Japan and Africa for centuries. The earliest surviving examples include preColumbian alpaca fabric fragments found in Peru and silk from fourth century Chinese tombs. Indian Bandhani, one traditional form of tie-dyeing, began some 5,000 years ago.

Japanese tie-dye is included among the many techniques of shibori, which has been used for many centuries to make different types of beautiful patterns on cloth used for elaborate kimonos.

As in ancient times, we still use natural fibers for tie-dyeing. Silks from China, cottons from Egypt and rayon from Bali are still highly prized.

Many cultures still use tie-dye today to create beautiful fabrics and garments.
Want to learn more? Google: "History of Tie-Dye"

## Test Your Knowledge

1. Name a natural substance that can be used to dye fabric:
2. (True or False) Dye can be added to synthetic fibers as they are made.
3. (True or False) Fibers, such as cotton, that are comfortable and absorbent also dye well.
4. (True or False) Today most of the dyeing of fibers and fabrics is done using natural dyes.
5. What is the dyeing technique called where blocks are used to create a design?
$\qquad$
6. Name a country besides the United States where tie-dying has been done:
$\qquad$
7. Name a natural dye substance that you would like to use to dye a garment:

## LET'S TIE-DYE

Supplies: Item to dye (T-shirt or other white item), rubber bands, apron or old clothes to wear, large garbage bags, disposable aluminum pan, dye for clothing, empty dishwashing detergent bottles or spray containers

Basic Steps to Tie-Dye:

1. Before you dye your item, you should wash it to remove any sizing from the manufacturer or anything else that may have gotten on it.
2. In order for the dye to be more permanent on your project, you will want to soak
 your shirt or other items in a soda ash mixture. With the help of an adult, add $1 / 2$ cup salt to the dye mixture.
3. Decide what sort of design you want for your finished project.
4. Cover your work area so the dye doesn't stain it. Lay down a few large garbage bags.
5. Lay your shirt or other item out flat then fold and tie, as desired.
6. Prepare your dye as directed by the manufacturer. You should carefully follow all instructions. (Add $1 / 2$ cup of salt to every $1 / 2$ gallon of dye to help set the dye if you haven't soaked your shirt in soda ash.) While preparing the dye and dyeing your item, you should wear rubber gloves to protect your hands from staining.
7. Now you are ready to start dyeing. Fill empty dishwashing liquid bottles or empty spray containers with the color(s) of dye you are using. Hold your item over a large disposable aluminum pan. Squirt or spray the areas where you want the color to appear.
8. Allow the dye to soak in for 15 minutes. You can put this in a plastic bag to let the dye be absorbed. Then rinse thoroughly; remove you rubber bands or string and rinse again.
9. Admire your creation!
10. Be careful washing your tie-dyed items! Most should always be washed in cold water. The first few times they are washed, they might bleed, so wash them with like colors or alone.

Here are some examples on how to fold your fabric: Lines by placing rubber bands at intervals


Sunburst by using a marble and rubber bands


Circles by using one marble and one rubber band, then repeated all over the fabric


## What can you do with what you have learned?

- Try dyeing a white garment using natural dyes, such as tea.
- Meet with younger 4-H'ers and teach them about tie-dyeing and have them create their own tie-dye.
- Create a poster or PowerPoint with information about the history of tie-dye and share with others.
- Interact with a person from another country and learn about their culture.
- Have someone take a picture of you tie-dyeing and save it to use later in making posters of your activities, scrapbook or a portfolio.

Answers to "Test Your Knowledge":

1. Berries, flowers, etc.
2. True
3. True
4. False
5. Direct dyeing
6. India, Japan, China

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# Activity 24: What Do People from Other Countries/Cultures Wear? 

Understanding Textiles (Fabric)<br>Project Outcome: Global/Ethnic - Identify various fabric as belonging to specific ethnic cultures.<br>Project Indicator: Completed exploration of specific items worn in identified countries/cultures, the clothes worn during festivals/celebrations, and fabrics used.

First, let's define the word culture. Culture means: the beliefs and customs of a particular group of people, which guides their interaction among themselves and others. A country can contain people from more than one cultural background. They may or may not observe the same celebrations or traditions in the same way. As you learn about the clothes of different cultures and the fabrics used, you will
 better understand this concept.

## TIPPS Outcomes:

- Understand the meaning of information.
- Use the senses to gain new information or find new ways to use information.
- Make the needed effort to complete a task or a plan.

Do you know someone from another country? Or have you ever seen in person or on TV, a festival or celebration from another country? Have you noticed that they wear clothes that are different from what you and I wear? While some of their celebrations are the same as ours, the clothes they wear may be different. It is fun and interesting to learn about what people from other countries wear during their festivals and celebrations. In learning this, you can also learn about the fabrics that they use to make their garments for these festivals.

For this activity, you will learn about four different cultures, what they wear, especially for their festivals/celebrations or based on their religion, and what fabrics they make and use for clothing worn. Then you will be asked to do your own research to discover more about the clothing of these and other cultures.

There are 31 different states in Mexico. The clothing worn for festivals differs from state to state. But there are several items that are very similar.

Here are the similarities:

1. One thing that you will find about most garments is that they are made using bright colors.
2. The fabric most commonly used for outerwear is made of wool for warmth, while other clothing is made of cotton or a cotton blend.
3. Clothes also tend to be somewhat loose fitting.

Now let's look at some specific garments.

## Mexico - Clothing for Festivals

The Serape (suh-rah-pe) is a long blanket-type shawl, often brightly colored and fringed at the ends, worn especially by men. It is made of wool for warmth. Modern variations of some serapes are made with matching hoods for head covering. The length varies, but front and back normally reach knee height on an average person.


The huipil (wee-peel) is a loose-fitting dress made of white cotton fabric. You will notice from the picture that it has bright-colored embroidery. If the embroidery is elaborate, it is more likely to be worn during festivals. Otherwise it is an everyday garment. In different states in Mexico, the huipil is worn for different occasions. In the state of Oaxaca it is worn as a wedding dress. The embroidery is different on huipils in different states with some using floral designs and others using animal symbols. The huipil is often worn with a bright-colored full-wrap skirt and belt for festivals.

To explore: A very special occasion in Mexico is the Quinceañera (keen-sey-ah-nyair-uh). Find out what this is and what is worn by girls, color of outfit, fabric it is made from, and what happens on this occasion. (Use the chart at the end of this activity to complete your exploration.)

## The Dress of Women in India

A sari (sahr-ee) is a garment worn by women in India. It consists of a length of fabric from 5 to 9 yards in length and 2 to 4 feet wide. It is typically wrapped around the waist, forming pleats, with one end draped over the shoulder. The sari is worn with a fitted bodice commonly called a choli (choh-lee).

Saris are made of different patterns, fabrics and colors depending on the occasion. Red is the most favored color for wedding saris. Women traditionally wear various types of regional handwoven saris made of silk or cotton using various embroidery and dyeing techniques. One of the most sought-after saris is the brocade silk sari, which is traditionally worn for festive and formal occasions. Different regions of the country prefer different designs and fabric for their saris. Less elaborate saris, often made of cotton or even polyester, are used for everyday wear.

To Explore: For special occasions in India men also wear special garments. Explore what men's garments are like and the fabric used to make their garments.


## Kenya - Dress of the Massai

In Kenya, which is in East Africa, there are many different cultures or people of different beliefs and lifestyles. The Maasi (Mah-sahy) is one culture that can be described as a semi-nomadic people who travel from place to place to find food and water for their cattle. They do not have a big closet full of clothes as we do. The traditional dress worn by the Maasai is the shuka (shoo-kah). The shuka is typically made of a cotton plaid fabric that is a length of fabric that is wrapped around the body.

The traditional colors of a shuka are bright red and blue. The fabric of a shuka is durable and protects the Maasai against the terrain (bushes, etc.) of the Savanna where they live.


To Explore: The Maasai are also known for the jewelry they wear. Explore this aspect of their outfits, including what their jewelry is made from and any special meaning of the jewelry.

## Saudi Arabia - Women's Traditional Clothing



Women in Saudi Arabia wear a long dress, an outer cloak called abaya (uh-bey-yuh), and a scarf called shayla (shah-lah). They always cover their body, sometimes leaving only their face and wrists uncovered. Some women show only their eyes and wrists.

The abaya is black and made from silk or synthetic material such as polyester. It is worn over a dress which can be either traditional or of modern style. Traditional dress is usually bright and embellished with coins, sequins, patterns on fabric and other decorative elements. But Saudi women often use Western-style dresses of various designs, with the abaya worn on top.

To Explore: Men of Saudi Arabia have traditional dress and headwear that is conservative and protects them from the environment. Explore the dress of men in Saudi Arabia, including the type of fabric used to make their garments.

## Exploring the Dress of These and Other Cultures

Now that you have learned about a few different cultures, what they wear for special occasions, and what fabrics are used to make their garments, explore the following to learn more about these cultures. (Resources you may want to use include library books, people you know from these cultures, and information on the internet.)

| The Quinceañera of <br> Mexico | What is this special <br> occasion and what <br> happens during the special <br> event? | What is worn by the girls <br> that are being honored? | What is the color of their <br> outfits and what type of <br> material is used to create <br> their outfits (cotton, <br> polyester, etc.)? |
| :--- | :--- | :--- | :--- |
| Garments worn by men <br> in India for special <br> occasions | What are some of the <br> special occasions where <br> the men wear special <br> garments? | Describe the outfits they <br> wear: | What is the color of their <br> outfits and what type of <br> material is used to create <br> their outfits (cotton, <br> polyester, etc.)? |
| Jewelry worn by the <br> Maasai of Kenya | Describe the jewelry the <br> Maasai wear: | Is there special meaning <br> behind the jewelry worn? <br> If so, what is the meaning? | What is the jewelry made <br> out of? |
| The traditional dress <br> and headwear of men of <br> Saudi Arabia | Describe the main garment <br> worn by men and the <br> headwear: | What is the purpose for <br> wearing the clothing and <br> headwear? | What is the fabric used for <br> the garment and headwear? |
| Select one of the <br> following cultures and <br> explore their traditional <br> dress: Korea, Japan | Describe the clothing worn <br> during one of their <br> festivals or special <br> occasions: | Describe the festival or <br> special occasion and what <br> happens during it: | What kinds of fabrics or <br> materials do they use in <br> their costumes (examples: <br> silk, cotton, embroidery, <br> bright colors). |

Now that you have learned about the clothing of other cultures, share this with your classmates, family or fellow 4-H'ers. Here are some ideas:

- Make copies of pictures and make a poster to display.
- Create a PowerPoint and present to younger 4-H members or to a project group.
- Ask adults you know if they know anyone from another country/culture. Gather information from them and share with them what you have learned.
- Lead a project group in a computer laboratory and have each member of the group take a different country/culture to explore. Have the group make a collage of pictures of countries they explore and display the poster in your school or library.


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