Design is an exciting part of textile science. It gives you the chance to be creative! For this project, you may choose to do one or more of the following:

1. Apply trims and findings on a garment.
2. Apply folds, tucks, darts, or seam finishes in an interesting way on a garment.
3. Dye fabrics or garments.
4. Paint, applique, embroider, quilt, or do other handwork on textiles or garments.
5. Modify a pattern to create a new garment or improve fit.
6. Update or recycle a purchased garment or household items into a new creation (with “before and after” photos or sketches).
7. Use a flat pattern technique to design your very own fashion.

Getting Ideas
To get ideas, look at pictures in magazines and catalogs. Keep a scrapbook of textile and garment ideas, drawings, and designs. If you don’t receive catalogs at home, try looking for them at the public library.

Don’t be frightened by the words “design” and “creative." Everything you do with your hands can be creative. The more you play with fabrics and ideas, the more you’ll learn and the more ideas will come to you.
Elements and Principles of Design
Whether you’re designing a new outfit, redecorating a room, or garnishing a meal, the elements and principles of design can aid you. Elements are the “tools” of design—like the paintbrushes you use in art. The principles help you put the tools to use.

Elements
We create design with line, color, texture, space, and shape.

Line
Why do we need to study line in design? Because lines can create optical illusions. They can trick the eye! Here are some famous optical illusions and some that are commonly found in clothing. You can find many books and articles on optical illusions in the local library. Sketch a few of these in your scrapbook.

Lines can vary in width and direction. Single vertical lines or a few close vertical lines can make your figure look taller and thinner. But many evenly spaced vertical lines can make the figure appear wider and fuller. Wide vertical lines can make the figure look broader and shorter, too.

Horizontal lines go across the figure and make it appear wider at that point. Several widely spaced horizontal lines add more width to the figure than a single horizontal line.

Many evenly spaced horizontal lines can make the eye travel vertically from one line to the next for a slimming effect.

Diagonal lines, at a more vertical angle, can make the figure seem taller and slimmer. Diagonal lines, at a more horizontal angle, can make the figure seem wider and fuller. Notice where the lower part of the diagonal is placed on the body. Be sure this is an area you want to emphasize. The eye is naturally drawn there.

Curved lines tend to make the figure look wider, especially if they go in more of a horizontal direction. Many small curved lines attract attention and can look bouncy or frivolous. Curved lines create and emphasize curved shapes.

Select several pictures of garments you like and put them in your scrapbook. Describe what lines are used and how they appear to the eye. You also may want to cut out a few comic strips to see how line is used to create feeling.
COLOR
The first thing you may notice about clothing is its color. There are two main color groups:

- **Warm colors**—which include reds, yellows, and oranges. These colors are often called sun and fire colors.

- **Cool colors**—blues, greens, and purples. These colors are often called water and leaf colors.

Color in the color wheel to get an idea of where colors are on the wheel. They are in the same order as they appear in a rainbow!

Monochromatic colors are combinations of colors in the same color family (monochromatic means “one color”). These colors may vary if they have been mixed with white or black or if they are brighter or duller than one another. Examples of colors in the same color family are: dark brick red, red, and pink.

Analogous colors are side by side on the color wheel. Examples are blue-green, blue, and blue-purple or red-orange, orange, and yellow-orange.

Complementary colors are those directly across from each other on the color wheel, like red and green. To be most effective, one of the two colors should be used in a smaller amount than the other, or the result will be dull or grayed.

Triad colors are those that form a triangle on the color wheel. Red, blue, and yellow are triad colors. They are also known as primary colors, because every other color is made from them.

Other combinations based on the color wheel are possible as well. It may be handy to purchase a color wheel with various tints (colors with white added) and shades (colors with black added) so you can try out different combinations. Some color combinations are more pleasing than others.

If you haven’t had the experience of creating color, use food coloring to combine the primary colors—blue with red, red with yellow, yellow with blue in equal quantities—to see which colors you create.
Finding Your Best Colors

Your personality should play an important part in the clothes you choose. No matter how good a color looks on you, you should like that color!

When you select colors for yourself, think of your hair, eyes, and skin. Some skin tones have a pink or blue undertone; some have a yellow undertone. You can tell by putting a white paper or card next to your skin; or try on a white and an off-white shirt or blouse. If you look better in white and have a pink or blue undertone, cool colors will be your best colors. If you look better in ivory or have more yellow in your skin, warm colors are best for you.

Of course, most colors are a blend of several different colors. For example, there are many shades of green, including blue-greens and yellow-greens. The green with a hint of blue may be attractive on a person with a pink or blue skin undertone. The yellow-green may complement the skin with a yellow undertone. So people with either skin color type can wear green, depending on the colors added to the green.

If you have trouble deciding what color classification you are in, work with your leader. Hold some pieces of fabric next to your face and look at their effect in the mirror. (Do this without makeup and in normal light.) Which ones do you like best? Ask a friend, a leader, or a parent for their opinions. Another way is to look at the colors of garments you wear often, especially when you receive compliments!

You may want to get your colors “done.” A person who sells this service drapes fabrics over you and evaluates which colors look best. You are then “placed” in a particular color season (spring, summer, fall, or winter) or time of day (early morning, afternoon, sunset, and dusk). Why not conduct a color workshop at a group meeting?

Color “Tricks”

- Color can make your figure or physique look larger or smaller.

- Colors that are warm, light, and bright call attention to themselves and make a space look larger. Colors that are cool, dark, and dull are not so noticeable.

- A two-color outfit, in which the top is a different color from the slacks or skirt, cuts the figure and focuses attention in the area of color change.
TEXTURE
Texture gives the fabric and garment dimension. By looking in a fabric or clothing store, you’ll find items that are shiny, smooth, tight and loosely woven, fuzzy, hard, and dull. Texture can affect how color appears in a garment. Shiny and bulky textures often make a shape look fuller. Dull, tightly woven textures can make the figure look smaller.

SPACE
Space can refer to a particular area within a design, or it might be what is often called “white space.” White space usually means the space surrounding the design. Both kinds of space are important in design.

SHAPE
Shape is formed by lines, spaces, and patterns, and can be two dimensional or three dimensional. Two-dimensional shape is usually formed by the printed design. Three-dimensional shape is formed by the garment on the body. Both types are closely related. Your body angles and curves can alter the way the printed design looks, just as the shape of the garment can appear to change the body’s shape. Interfacing, stiffeners such as crinoline and boning, and even tucks, pleats, and gathers sewn into a garment hold three-dimensional fabric shapes and change the appearance of the printed design. Look at pictures of historic clothing to see how many shapes are possible.

Design elements all work together to create the look of an outfit. Look for examples of design elements in magazines or catalogs. Mount and label them in your scrapbook.
PRINCIPLES
The principles of design are emphasis, balance, proportion, rhythm, and harmony (unity).

EMPHASIS
Emphasis is what first attracts your eye to the garment. To create emphasis you need one major center of interest. This may be at the neckline, waist, or another part of the garment. Having too many areas of interest is confusing!

BALANCE
Balance is the stable appearance of one side of the garment with the other. It is created much like balancing weights on either side of a scale or a teeter-totter.

- Formal balance is the use of the same lines, colors, or textures on both sides of a central line. Most of our clothing has formal balance.
- Informal balance is the use of lines, colors, or textures in a position that looks balanced but that is not exactly the same on both sides.

PROPORTION
Proportion is the relationship of spaces to each other. Equal proportions are less interesting than unequal ones. Colors, textures, and lines create different proportions. Look at the proportions in clothing and other familiar objects.

Proportion also refers to the size of print in the garment compared to your body size. Small prints generally look best on small people, and large prints usually look best on larger figures.

Also remember that your body has proportion. Another person the same height as you may have longer legs than torso or just the opposite. Sleeve length, placement of pockets, and other design details affect proportion, too.
RHYTHM
Rhythm moves our eye from one part of the design to another. There are many ways to give our clothing rhythm. One way is to repeat the same design elements: line, color, texture, shape, and space. Look at the following example of repetition.

Another way is through gradation—gradually increasing or decreasing one or more of the design elements.

A third way, very similar to gradation, is through radiation. Think of the sun and its beams. This is radiation—going from a small area to a larger one.

HARMONY
Harmony means that all parts of a design seem to belong together. It means you have used design tools well. Planning a design first, and using a full-length mirror in all stages of your project, can help get the right result. Harmony also means using the right types of fabrics and textures for the garment and its use. You need all these “tools and rules” to create beautiful designs.

Spend some time experimenting with these tools and rules. The more you try them, the more you’ll learn about design. Look for them in garments you like and learn how you can make the most of your appearance.
What I learned in this project (new skills, new words)


What I shared with others (presentations, helping other members, community service)


Did I participate in Fashion Revue?

Where? _______________ When? _______________

Project story
Use this space to write about your project. What did you do? What did you enjoy doing the most? The least? Tell about the type of pattern and fabric you selected or made. What did you have the most difficult time making? Include a photo or sketch of your final outfit or design process.

Tell about the fiber content of your fabric(s) and attach sample swatches. Talk about the sewing resources you used, the resource people you talked with, and where you found ideas for your designs.
**Design Project Record**

Name ____________________________________________

Address __________________________________________

Age as of January 1 _____________

Club _____________________________________________

Number of years in this project ______________________

Number of years in Textile Science projects ___________

Leader’s signature __________________________________

### What I made for my project

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Total number of garments made this year ____________.

### People who helped me and resources I used for this project

________________________________________

________________________________________

________________________________________

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________________________________________
**Sharing Your Ideas with Others**
You’ll want to share at least one idea you’ve learned. You might share a design plan, show how to use a color wheel, or teach a technique or skill involved in applying a design. Choose something you are really interested in talking about. Give a presentation, lead a discussion, or share something you have learned.

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**Want to Know More?**
There are hundreds of books about design. You may want to learn about silhouettes and illustration. Or you might want to learn how design elements and principles apply to decorating a room, garnishing food, and painting a picture. They all are very similar! Study designs that are used in pattern catalogs, attend arts festivals, and try to locate resource people who can help you put what you know into action.

**Exhibits and Fashion Revue**
Check current fair or roundup listings for exhibit ideas. Don’t forget to attach a fabric label to your garments with your name, age, county, and club. Activities in this project may or may not be suitable for modeling at fashion revue. Check entry information.

**Taking the Project Again**
You may take this project any number of times. You’ll need to make something new so that you can learn new skills.

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**Name** Kelly Torne  
**Age** 15  
**4-H club** Socks and the  
**County** Snippet

Prepared by Jan Scholl, associate professor of agricultural and extension education.


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