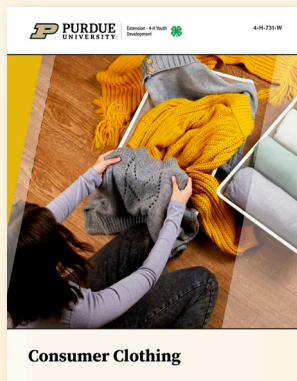


Consumer Clothing

Note to Project Helper



Consumer Clothing



Consumer Clothing



Consumer Clothing

Congratulations on having a young person ask you to be their helper. Your role as a project helper is very important to the young person's total educational experience. Not only will you provide encouragement and recognition; you will also be the key person with whom the young person shares each of the experiences in this 4-H activity guide.

The Consumer Clothing series is designed to help youth have fun and develop positive self-esteem as they learn how they feel about themselves and how that knowledge carries over into selecting and wearing their clothing. These educational materials have been created with a focus on:



Self-esteem and personal grooming



Color, fabric and clothing care



Wardrobe planning, fashion and clothing selection

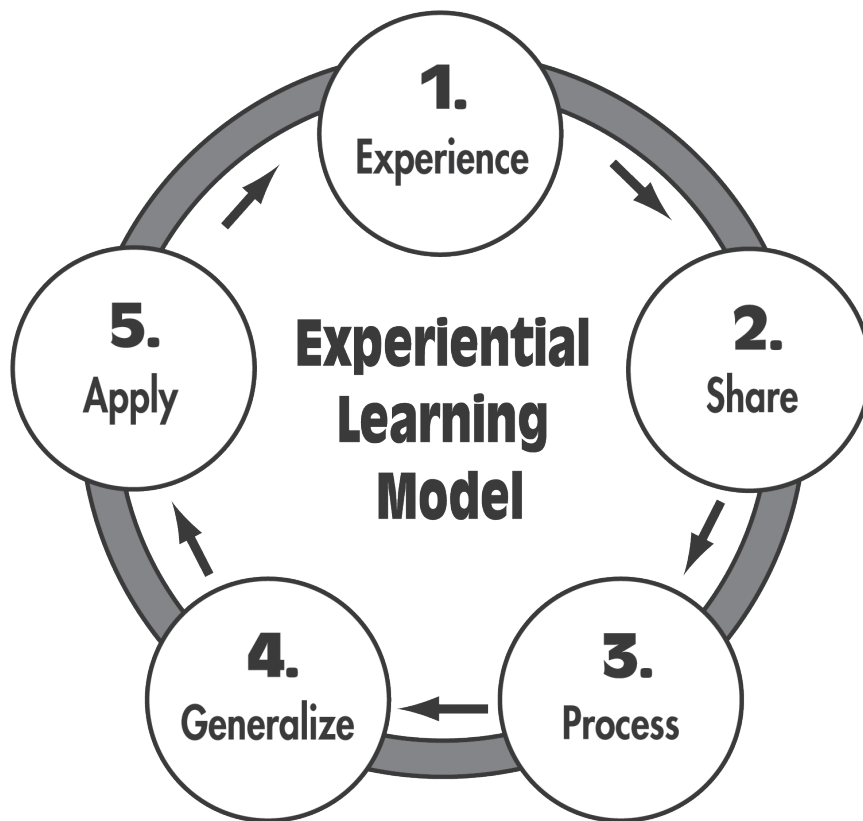


Money and careers

Activities included are designed for youth to complete at home and in stores.

Three activity guides are available in the Consumer Clothing curriculum. These guides have been designed to be developmentally appropriate for grades 3-5 (Beginner), 6-8 (Intermediate) and 9-12 (Advanced), respectively, but may be used by youth in any grade based on their skills and expertise.

Experiential Learning Model



Pfeiffer, J.W., & Jones, J.E., "Reference Guide to Handbooks and Annuals"
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Acknowledgments

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Project Guidelines

The Consumer Clothing series can be used when a young person prepares an exhibit for a fair or other competitive educational event. In addition to preparing a notebook or display describing skills learned, youth might also have the option to model their purchased outfit. Contact your county Extension office or sponsoring event coordinator to learn more about exhibit and modeling requirements.

Having Fun with Consumer Clothing

Are you ready?

Are you ready to learn about yourself while having fun and going on fact-finding missions, then sharing what you have learned with friends and family members? You'll have fun learning about taking care of yourself while learning to make choices about your clothes. You'll also learn how to select and care for clothes in addition to developing skills that will help you think about careers in the clothing industry.

Your project helper

Your project helper is important to your having a good experience learning about your clothing and personal care. This person might be your project leader or advisor, neighbor, family member, friend, or anyone willing to work with you to complete your activities. Involve your helper as you work with each activity and answer the questions. This adult is there to back you up and help you be successful.

Demonstrations

An interactive demonstration is a fun way to share what you have learned with others. The key is showing your audience step-by-step instructions and engaging them in what you are doing, not just showing them. You can give an interactive demonstration at a 4-H club meeting or anywhere a lot of people gather, such as your school or a county or state fair.

You can choose almost any topic you find in this Consumer Clothing project guide or another topic of interest to you. Here are some questions to ask when choosing a topic:

- Is it something that can be done in three to five minutes?
- Is it something other people might like to learn about?
- Can someone do this on their own after watching?
- Is there something hands-on for the audience to do?
- Can the supplies for the hands-on activity be used over and over again or do they have to be replaced every time?
Having to replace them adds to the cost.

Your demonstration should last about three to five minutes, and you need to be able to do it over and over again with different people in an interactive environment, or once in a competitive situation. You should have a conversation with the people you are demonstrating to. Your goal is to involve the audience. You can do this by having them do what you are doing, play a game, answer questions, or do a hands-on activity. Some examples: Demonstrate how to iron clothing, ways to organize a closet or how to select fashion accessories to accentuate clothing.



A young boy with dark hair is shown from the chest up, brushing his teeth with a white toothbrush. He is wearing a dark blue t-shirt. The background is dark and out of focus.

Choosing Clothing: Self-esteem and Personal Grooming

Choosing an attitude of thankfulness, appreciating others and practicing gratitude

As you move through life, being thankful for family, friends and individuals you spend time with or go to school with is an important part of learning to be positive about the world around you. A great way to start a positive daily path is by doing small things to let people know that you appreciate them and what they do with you. This might be as simple as thanking them for something they said or did with you by writing or texting a simple note.

It can also be helpful to start a journal (a written record) of what you are thankful for each day – and why. This might at first seem to be a bit overwhelming, but it can be as simple as listing two or three people you were grateful for and then listing the reason why you feel grateful for each of them. You might also think about something and someone who made you smile, and why. When you begin to intentionally notice positive things about others in your world, you'll also notice the positive in yourself! When you start to realize positive changes in yourself, you'll begin to realize a sense of achievement and success which leads to increasing self-esteem.

Activity 1

Let's start a gratitude journal! This will allow you to make a written record of people, things and activities for which you are grateful. Blank journals are available for purchase, but you could also use something like a spiral-bound notebook, ring binder or tablet that you use daily for your journal. Pick a time of day to regularly write in your journal. Maybe that's after you come home from school, after your homework is finished or just before you get to bed each night. If you make it a habit to record in your journal daily, you'll likely discover that it becomes easier and easier to think about what and who you're thankful for. Before you know it, writing in your gratitude journal will be pretty easy to do and a great habit to have.

To get you started on the first day, think about two things you are grateful for, and why. Then record that in your journal. On the second day, think about a person you're grateful for and what that person does to make you feel grateful and record that. There may be times when it's easier to draw a picture of the things you're grateful for. There isn't a single right way to record what is important to you. The important thing is just to do it!

After a couple of weeks of keeping your journal, answer the questions under REFLECT and APPLY at the right. At the end of the month, answer them again to see if you're feeling more comfortable with your journal and, as a result, are feeling more grateful.



REFLECT:

How did it make you feel when you wrote about things and people you're thankful for? Why do you feel it's important to think about being thankful? Was there a difference in how you felt about this activity after two weeks compared to at the end of a month? What was the difference, and why do you think it seemed different?

APPLY:

How does what you learned about gratefulness relate to other parts of your life? How could you share with others what you learned about gratefulness?

Self-Esteem and Clothing Choices

Your clothing, whether you think about it or not, identifies you as a member of a group. Police officers wear uniforms, as do nurses in hospitals and medical facilities, so that they can be easily identified. Members of athletic teams wear uniforms so they can be identified on a field or court. Workers at most fast-food restaurants wear clothing that identifies them as employees. Your clothing labels you as a member of your school and age group.

You might dress differently from your friends but generally, your clothing is similar. It's likely important to you to dress like your friends. Those feelings are normal. At any age, people want to be accepted and have a circle of friends. Generally, people who dress similarly approve of each other and sometimes are critical of those who dress differently. It's not uncommon for the criticism to become harsher as the variation in the clothing increases.

There may be times when dressing like your friends will cost more than your parents or caregivers may be able to spend, so you may need to compromise when it's time to shop for clothes. It's important to understand why you want each item, and it may help to mentally rank items in order of importance. Understanding your priorities should make it easier to talk with your parents about clothing purchases.

Your friends may decide it's "cool" or "in" to buy a certain brand of clothing. But perhaps that brand is more expensive than others, or the garment may not be made as well as lower-priced items. It's important to ask yourself "why" you want to buy a specific brand. Does it fit better than another brand? Is the quality as good? Is it as easy or easier to care for? Could you buy two items of good value for the cost of one with a particular brand name? How important is it for you to wear the same brand as your friends? Before buying a particular brand, think through your reasons and make a wise decision.

Activity 2

With a friend or family member, look online (or in a magazine, if available) and discuss how different garments would look on you. Would the garment look good on you? How would it make you feel? Would it be practical for you? Why or why not? Will it fit into your current wardrobe or does it fill a need for a new activity or event? Keep a record of 5-10 garments you looked at with notes to describe each garment and answer these questions above for each one.

REFLECT:

What did you learn from this activity? Would spending time looking at different garments save time when you are ready to make a purchase? Why or why not? Do you think saving time might also save you money?

APPLY:

How can "pre-shopping" in this way be done in the future in your household? In your family, who might benefit the most from an activity like this? And why?

Focus on Grooming Products

There are many grooming products available for purchase. Advertisers spend millions of dollars to convince you that their product(s) will make a difference in how you look and feel. Teenagers make many of these purchases. Now is a good time for you to learn about products and to become a wise consumer.

Shampoo - Personal preference accounts for most of the differences among personal care products, including shampoos. It is important to remember that all shampoos have three basic ingredients. **Principle**

surfactants are the detergents that create foam and clean hair. Manufacturers alter surfactants to make shampoos for dry, normal, or oily hair. **Modifying additives** are secondary surfactants that increase the effectiveness of the principal surfactants. They improve the condition of washed hair and affect how the shampoo looks. **Additional additives** include perfume, colors, water softeners, thickeners and preservatives. Consumers often base their choices on these subjective factors. These additional additives usually help sell a simple detergent.

Hair Conditioners - When you shampoo your hair, the cuticle - scales forming the outer layer of the hair - become ruffled. When the cuticle is ruffled, hair tangles more easily and may look dull. Shampoo also removes the oil from hair. Without this coating, hair can become dry and hard to manage. Conditioners reduce the roughness of the cuticle, so hair combs easily, looks shiny and feels soft. They also coat each hair, which counteracts static electricity and makes hair more manageable.

Conditioners contain an oil or synthetic resin that mimics the lubricating effect of sebum. Sebum is an oil released by glands in the scalp. Most conditioners contain humectants that draw moisture from the atmosphere to make hair feel softer. Quaternary ammonium compounds (quats) bond the conditioner to strands of hair. Quats



carry a slight positive electric charge to counteract static electricity. Emulsifiers keep the oil and water components properly mixed. Conditioners also have thickeners, opacifiers, antioxidants, preservatives, coloring and perfume.

Lotion - Hand and body lotions are used to prevent or relieve dryness and protect the skin. Dryness relates to the water content of the skin, and adding oily materials to the skin can help this condition. Hand lotion generally has two primary ingredients: oil and water. Oils are a variety of substances that are insoluble, which means they can't be dissolved. These compounds in lotion include fatty acids, glycols, long-chain alcohols and natural oils.

The greatest proportion of a hand or body lotion consists of water-soluble ingredients. An emulsifying agent serves as a bridge between oil droplets and the water. This agent prevents the oil and water phases of the lotion from separating. In addition to oil and water ingredients, most commercial lotions contain an antibacterial agent, preservative, fragrance and color. There are also specialized lotions created to treat various skin types, from dry, to acne prone to eczema.

Toothpaste - Toothpaste is the most widely used cosmetic product. More people use soap, but soap is considered a bodily necessity and not a cosmetic. Toothpaste is actually a soap with grit and flavoring. Some of the abrasives (grit) used in toothpaste are calcium carbonate, tricalcium phosphate and silica. These ingredients are cleaners that help remove plaque. A typical detergent that creates foam and helps remove food from the teeth is sodium lauryl sulfate. The remaining ingredients include sweeteners (sorbitol, glycerol, saccharin), flavors (peppermint or cinnamon oil and mint), thickeners (cellulose gum, polyethylene glycols - PEGs) and preservatives (sodium benzoate). Many toothpastes also contain stannous fluoride, which works to reduce tooth decay.

Activity 3

Foam Test (with shampoo or toothpaste): 1) Put 10 to 20 drops of Shampoo A into a small jar. Put 10 to 20 drops of Shampoo B in another jar. Or squeeze a small amount of Toothpaste A into a small jar. Squeeze a similar amount of Toothpaste B in another jar. 2) Fill each jar $\frac{1}{4}$ full of water. Be sure to have equal amounts in the jars. 3) Put the lid on. Then, at the same time, shake both jars 10 times.

Activity 4

Cost Comparison. Choose a product available in at least three sizes. Toothpaste is a good choice. Compare the prices of the three sizes at three different stores. Compare the price per ounce for each tube or package. Use this formula to make your comparisons.

Cost of product = \$ or \$ = cost/ml or cost/oz

Size of product ml or oz

REFLECT:

Which product made the most foam? Foam is needed for ease in cleaning. Which jar had the smallest bubbles? Small bubbles increase cleaning action. Check the second hand of a clock or watch, or use the stopwatch feature on a cellphone. Note how long it takes for each sample to lose a fourth, half and all of its foam. The longer the foam lasts, the more time you have to distribute the shampoo easily over your head and do a good job of cleaning. What does this tell you about the two products you tested?

APPLY:

Did this test cause you to reconsider or change a product? How might you share this information with family or friends?

REFLECT:

What did you learn about the cost of each of three sizes selected? Which size was the best value when comparing the amount purchased? Which was the most expensive? Which store provided the best price for the best value?

APPLY:

What other types of household or personal items might a comparison test like this be helpful for you or your family?

Hard vs. Soft Water

Did you know that there are differences in water? Have you heard people talk about water being hard or soft? Though water falls from the sky when it rains, the water we use or consume daily isn't all the same! Both hard and soft water have benefits and risks, but determining which you might prefer will come down to personal preference or how you plan to use the water.

As rainwater falls from the sky it is soft, because evaporation doesn't allow it to pick up minerals. Minerals are picked up as water moves across the ground, and the minerals are what make the water hard. The two types of minerals found in water are magnesium and calcium. Homeowners often believe soft water is better to have in the home because it doesn't leave mineral residue or buildup. The reality is that there isn't a "better" or "worse" type of water, though soft water, because of its lack of minerals, may make skin feel slippery, or like there is a residue. The minerals found in hard water can interact with the ingredients found in shampoos and other hair products and may make them less effective.

Activity 5

Foam Test with Hard and Soft Water. 1) Drop 10 to 20 drops of shampoo into each of two small jars. 2) Fill each jar $\frac{1}{4}$ full of water. Use soft water in one jar and hard water in the other. Be sure to have equal amounts in jars. 3) Put the lid on. Then, at the same time, shake both jars 10 times. 4) Did the product dissolve more quickly in one jar? Did one jar have more foam than the other? Did the foam last longer in one jar?



REFLECT:

Describe the differences you noticed between the hard and soft water. Which water do you have in your home? What does this experiment make you think about in terms of the shampoo you currently use?

APPLY:

How might this experiment affect the type of shampoo you purchase in the future? Do you have friends or family members who might be interested in what you discovered with this experiment? Do you think knowing about this would cause them to make changes in their future shampoo purchases?

*Please note: for Activity 5, you will need both a soft and hard water sample. If you have a water softener in your home, ask an adult if they can help you find a source of hard water. This likely means going outside your house to where you can get water for a lawn or garden. If your home has hard water, you may need to visit with a family member, friend or neighbor who has a water softener in their home.

Wardrobe planning, fashion and clothing selection

Managing Clothes – Where Will You Shop?

Many stores offer clothing. No one store is right for everyone or every clothing purchase. The more you know about the differences, the better you will be able to shop. Perhaps the first thing to consider is price. Are the prices high, medium, or low? Also think about selection. How many different categories of clothing (coats, sweaters, shirts, shoes, jeans) does the store carry? How good is the selection in these categories (or the category for which you need to shop)? Are there many different styles, colors and sizes available? Does the store carry a single brand name or several brands from which you can choose?

It's also important to think about the services the store offers and whether you will have a need to use them. Is layaway an option? Do they have someone who does alterations? Do they offer online purchases and delivery? One of the most important services is the store's return policy. Can merchandise be returned (and under what conditions)? Will you need the sales receipt and is there a limit for how long returns are offered (30, 60 or 90 days)? Sales receipts are generally required, so it's a good idea to keep sales receipts until you're sure you are satisfied with the purchase. If you can return the purchase, will the store give you a cash refund? Will they make an exchange for other merchandise?

Department stores usually offer clothing in the medium to high price ranges. They carry everything from shoes to sportswear to underwear. They offer a variety of colors, sizes, styles and brands. In addition, department stores offer many services, but they may charge for some of them. Most department stores have liberal return policies, but you should ask before you buy.

Mass merchandisers have many stores and are usually nationwide. They sell to a large number of people and, similar to the medium-priced department store, they carry fewer brands. Their policies on services and returns are usually the same nationwide.

Specialty stores sell only one type of clothing (jeans or shoes) or clothes for a particular group (men, children, or women). Prices in specialty stores usually range from medium to high. They sell fewer types of clothing categories than department stores. However, the selection of colors, sizes, styles and brands may be quite large. For example, a store that sells only jeans usually offers many sizes and



styles. Inquire about return policies because they may not be as liberal as department stores.

Discount stores usually offer lower prices than department stores or mass merchandisers. Each store carries a wide range of clothing for women, children and men. They usually offer many colors and sizes but typically offer fewer services than department stores, mass merchandisers or specialty stores.

Off-price stores sometimes carry the same name brands as department or specialty stores but at lower prices. The selection in off-price stores can be limited, especially in terms of size and color choices. Many off-price stores get merchandise from manufacturers' canceled orders, overruns, and end-of-season closeouts. Off-price stores usually offer few services, and most have strict return policies.

Factory outlets are owned and operated by clothing manufacturers. Instead of selling their closeouts, canceled orders and discounted merchandise to off-price stores, manufacturers open their own retail stores. Frequently, factory outlets carry only one brand of merchandise, so the selection is limited. Services are nonexistent or very limited, and returns may not be allowed.



Secondhand or thrift stores have become quite popular. They typically offer lower than general retail prices. Their selections may be very limited but often offer unique or like-new clothing. Generally, they do not accept returns, and other services are likely nonexistent. If you shop at these stores, it might be helpful to know some basic sewing skills which can come in handy for making needed repairs.

Look for Quality

Answer these questions when deciding if a garment is a good buy. How does the garment look on you? Does the design complement your body type and/or figure? Do the color and fabric complement your skin and hair coloring? Is the garment comfortable? Does it fit properly? A new design by a specific brand is a good buy only if the garment fits your current needs and will stay in fashion as long as you want to wear it. Your friends might wear brand name clothing because of the brand's reputation or because "everyone is wearing it." They may not be considering the quality of the garment(s).



Learn to evaluate a particular design by how a particular garment looks on you. Judge the fabric's quality by its appearance and performance capabilities. Fabrics should last throughout the time you use them and should be comfortable at the temperatures in which you'll wear them. They should be reasonably easy to care for and compatible with the garment design. Fiber content and how the fabric is made determines durability, comfort and appearance. Read labels and handle the fabric to determine its quality. Also, consider how often and how long you expect to wear the garments.

Workmanship in construction is another factor. To identify quality workmanship, you need to consider the following points.

- Garments should be cut on the grain. In most garments, the yarns or threads of the fabric run straight from top to bottom at the center front and center back.
- There should be no unnecessary pulling, bagging or sagging at the hem, collar, facings or other parts of the garment.
- There should be no unnecessary wrinkles in the collar, facing, or other parts.
- Seams should be even in width, free of puckers and finished so that the fabric won't ravel when laundered or dry-cleaned.

-
- Stitching should be even, width and length. The thread color should match or blend with the fabric. Stitches should be secure and unbroken. Stress points (at pockets, bottom of zippers, etc.) should be reinforced.
 - Hems should be even in width, evenly stitched and not too evident from the outside of the garment. They should be finished so the raw edge won't ravel.
 - Fasteners (hooks, snaps, buttons) should be in the proper location so that the garment doesn't pull. They should be stitched securely to the garment. Buttons should slide through buttonholes without unnecessary pulling or pushing. Buttonholes should be stitched securely, with no dangling threads.
 - Zippers should operate easily and be securely stitched. The zipper tape should closely match the color of the fabric (unless the zipper is a design feature, in which case it may contrast) the fabric.
 - Linings should be smooth and evenly stitched. The color should match or blend with the outer fabric.

A high price does not always guarantee good quality. You must know how to recognize and judge quality to get the best buy. Sometimes you don't need the best quality in a garment. Before you buy, think how often you'll wear the item and for how many years. Sleepwear and jeans are frequently worn items that have to be replaced often. It's wise to pay less for infrequently worn items, such as outfits you might wear to formal occasions. Spend more for shoes or a good winter jacket that you'll wear daily.

Activity 6

Look in your wardrobe for one type of garment of which you have several examples: T-shirts, jeans or shirts. Compare at least three different brands of the same type of garment. (If you don't own enough different brands, borrow some from a friend or try on a garment in a store). Look for the manufacturer's label and size label in each item. Compare the brands for fit and record your results by explaining the differences between brands. (Use the sample chart or make one of your own to record your results).

Name of garment _____

	Name of manufacturer	Size	How does it fit?
Garment A			
Garment B			
Garment C			

Describe how these garments fit differently.

Which garment fits best? Why do you think so?

REFLECT:

What differences did you find in the fit of the garments? Please describe. What did you find to be the most surprising as you tried them on and checked for fit?

APPLY:

How will what you learned cause you to think about a purchase of future brand name garments? Who could you share this information with, and why would you share it?

Activity 7

Choose a specific kind of garment, such as jeans, shirts, coats, or jackets. Look at three examples of the garment in one or more stores. Make a "Quality Chart" to compare the garments (see chart below). Use this rating scale: 1 = unacceptable, 2 = less than acceptable, 3 = acceptable, 4 = good, and 5 = excellent

REFLECT:

Which of the three garments would you be willing to buy? Explain your reasons.

APPLY:

How could a similar quality chart inform your decisions about future purchases?

	Garment A	Garment B	Garment C
Kind of Garment			
Design of the garment			
Quality of garment			
Quality of construction			
Overall appearance			
Fit			
Acceptable for intended use			
Price			
Total Points			

Activity 8

Make a Cost-per-Wearing Chart. Compare the cost-per-wearing of three garments from your wardrobe. For example, you could compare jeans, an item you wear to school and a special-occasion garment.

	Garment A	Garment B	Garment C
Name of garment			
Cost or purchase price			
Number of wearings * (number of wearing-per-week x number of years)			
Cost-per-wearing (divide total cost by number of wearings)			

*Use actual or expected numbers

REFLECT:

Which garment has the highest cost per wearing? What happens if you wear the garment more times per week or for more years? Which garment has the lowest cost per wearing? What happens to the cost per wearing if you don't wear a garment as often as you thought you would?

APPLY:

Give an example of how you can use a cost per use chart for other household purchases.

Activity 9

Choose a different set of garments than those you used in Activity 7. Select them from three different stores. Explain what you compared and the type of store.

REFLECT:

If there is a difference in price, can you explain the differences in price and quality? Were there differences in the store's services?

APPLY:

How can you use what you learned when it's time to make future clothing purchases?

Fit Determines Comfort

Good fit is essential for comfort. Search for a dressing room with a 3-way mirror and try on garments so that you can see not only front but side views, too. Does the garment allow you to move freely? Few garments, other than swimsuits, fit skin-tight. Extra fabric in a garment is called ease. Wearing ease keeps garments from binding when you breathe, reach, bend or stoop. If you are buying active sportswear, simulate the movements that you'll make when wearing the clothing. Swing an imaginary tennis racquet if you are buying a shirt for tennis. This might sound funny but remember, you won't be standing like a statue out on the tennis court.

Designers add additional fabric to achieve a special look. Design ease is added beyond what's needed for wearing ease. Full, gathered skirts and sweatpants have extra inches of design ease around the hipline. Oversized jackets contain a lot of design ease across the shoulders and through the chest and waistline. The amount of wearing ease depends on the fabric. With stretch fabrics or knits, the garment may need very little wearing ease. Racing pants for bicycling have very little wearing ease. The knit construction and the nylon and spandex fibers stretch and give with body movements. Racing pants do not have any design ease because extra fabric creates wind drag. Aerodynamically styled clothing can add winning seconds to the racer's speed. When buying clothes, look for enough ease for comfort, but not so much that the garment looks too big or inhibits your activity.

Activity 10

Try on a new sports or active wear outfit. Simulate the motions involved in the sport where you would wear this. Is there enough ease for you to move freely? Or does the garment bind and restrict movement?

REFLECT:

Describe how you felt in the outfit. Explain where ease is needed in the outfit and why it's needed for your sport.

APPLY:

Is this an outfit you would buy in the future? Explain why you would or would not make the purchase. If you answered that you wouldn't purchase, what would you look for instead?

Activity 11

Interview three to four members of a local gymnastics, basketball, dance (or other) team to learn what they think about how their uniforms fit. Prepare your questions ahead of time and interview the individuals one at a time.

REFLECT:

Do any of the players complain that what they're required to wear rubs or binds? If so, can you determine why other players feel comfortable in the same uniform? Do the reasons have anything to do with differences in body build? Describe what you learned.

APPLY:

How can you apply what you learned about how a person's body is built and how that impacts comfort in clothing.

Color, fabric and clothing care

Color and color terminology

Refer to the color wheel located on the inside back cover of this project manual to help you understand the explanations of color vocabulary, and for the next three activities).

Color is a part of everything we do – from the clothes we wear to the items in our room and the food we eat. Color has its own language. The following are several color terms you may have learned about in school. They can also be used to think about the variety of colors found in your home or your wardrobe.

Hue refers to the color names: red, blue, or yellow green. Red, yellow, and blue are the three primary colors found on the color wheel. When any two of these colors are combined, they create secondary colors. Red and yellow make orange. Red and blue make purple. Tertiary colors are made by mixing a primary color with a secondary color. The colors on a color wheel can be used to help you decide which colors look good together. Value is the lightness or darkness of a color. A value scale begins with white and ends with black. When a color is lighter than the brightest hue possible, it is called a tint of that hue. You can make tints by adding white to a hue. Pink is a tint of red. A color that appears darker than the brightest hue possible is a shade of that color. You make shades by adding black to colors. Brown is a shade of orange.

Intensity is the brightness or dullness of a color. Full intensity is the brightest color possible. Low-intensity colors are often called dull, soft, or grayed. They also may look muddy or dirty. To make a color less intense, add either gray or the color's own complement. Complementary colors are two colors that are directly opposite one another on the color wheel. Colors also are either warm or cool. Warm colors are red, orange, and yellow. Cool colors are blue, green and purple. Warm colors remind us of heat and fire. They are stimulating and exciting. Cool colors remind us of shadows, water and trees. They are calm and quiet. You might wear intense colors together in equal amounts, but sometimes it's more interesting to combine bright and soft colors.

Combinations of bright and soft colors are more pleasing when they are combined in unequal amounts. Accent a large area of soft or dull color with a small area of bright color. For example, combine medium blue with a small amount of red. Equal areas of bright and



dull intensity usually aren't pleasing. To create a focal point or catch the eye with color, use one splash of color. You can draw attention to a particular area of your body with a focal point. For example, wear a bright scarf or tie to draw attention to your face. Let the rest of your clothing serve as a background.

Let's practice understanding some additional color terms by looking at the color wheel.

Monochromatic colors are the shades or hues of a single color. For example, pink, fuchsia, rose are all generated from the use of red. Analogous are those colors that are next to each other on the color wheel. An example would be red, red-orange and red-violet.

Pick a single color on the color wheel. The complementary color of your selection is exactly opposite that color on the color wheel. When trying to understand what is meant by split-complementary colors, start with a single color of your choice and then identify the complementary color. The color on each side of the complementary forms the split-complementary when added to the originally selected single color.

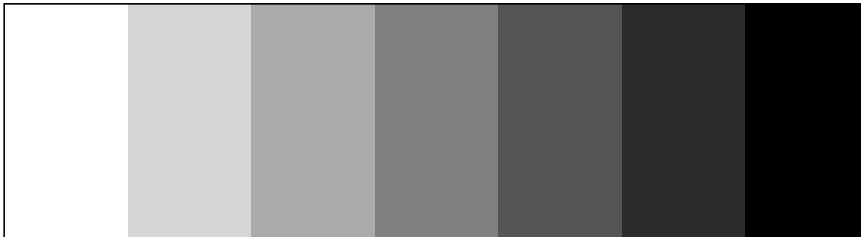
Triadic colors are three colors spaced equally apart from one another on the color wheel. Red, yellow, and blue are examples of triadic colors. If you used a ruler to draw lines on a color wheel to connect those three colors, you would have a triangle with three equal sides. A square color scheme combines four colors that are spaced evenly around the color wheel.

Activity 12

Use watercolors or poster paints in only primary colors of red, yellow, and blue to learn how the primary colors are mixed to form secondary and tertiary colors. Then form a 12-color color wheel and label the colors.

Activity 13

Use watercolors or poster paints to make a value scale similar to the one you see here. Remember that value is the lightness or darkness of a color. Start with white. Add a bit of black to make a light gray. Then add another bit of black to create a darker gray. Continue adding more black until the swatch is completely black. The next activity will help you understand how value is applied to colors.



REFLECT:

How are the colors related to one another? Do you have a favorite color?

APPLY:

How does seeing secondary or tertiary colors develop before your eyes change how you see or think of colors? Please explain.

REFLECT:

What surprised you most about creating the value scale? Which part of creating the value scale did you enjoy the most? And why?

APPLY:

Find a black and white photograph and spend some time studying it. Besides seeing black and white in the photo, how many different shades of gray do you see? How does value help you to see what is in the photo besides black and white?

Activity 14

This activity will help you learn about six major color schemes: monochromatic, analogous, complementary, split complementary, triadic, and square. Use watercolors, poster paints, fabric swatches, paint chips or samples, or pictures to show your understanding of four of the major color schemes.

Fabric

Fibers used in clothing are either natural fibers, manufactured fibers, and/or blended fibers.

Natural Fibers: Natural fibers come from animals or plants. The most common plant fibers used in clothing are cotton and linen. The most common animal fibers used in clothing are wool (commonly comes from sheep, goats, rabbits, llamas or alpacas) and silk (which is made from the cocoons of silkworms that have fed on mulberry leaves).

Manufactured Fibers: Manufactured fibers are made from chemicals. Common examples of manufactured fibers used to construct clothing are polyester, nylon, spandex, and acrylic.

Blended Fibers: Blended fibers are a combination of natural materials and manufactured materials. Examples of blended fibers are polyester/cotton, nylon/wool, and rayon/acetate.

Fabric is made in three basic steps. The first step in creating fabric is to harvest and process the raw, natural fibers by spinning the raw fibers into yarns and threads. Most spinning today is done by a spinning wheel, where the fibers are drawn across the wheel and as the wheel spins, the fibers are made into a long strand of thread or yarn that is collected on a bobbin.

REFLECT:

What is your favorite scheme, and why? Do any of the outfits in your wardrobe use these schemes? Does the proportion or the amount of the color used affect how you like the scheme?

APPLY:

How can you use the knowledge of these color schemes the next time you select an outfit? Which color scheme would you like to use, and why? Are there any that you would choose not to use? If so, why?

In the second step, bobbins are moved to a machine called a loom, where the thread or yarns are joined together by a process called weaving to form fabric. Two sets of thread or yarn are required for weaving. The first set of bobbins holds what is called the warp threads, which are stretched across the metal frame on the loom. The second set of bobbins holds the weft threads that are connected to metal rods. The loom is controlled by a computer that lets the metal rods know how the weft threads will be woven into fabric. The weft threads are repeatedly woven over a warp thread, then under the next warp thread.

After fabric is woven, the third and final step is processing of the fabric. It is first cleaned and bleached so that there is a purified white base color. A variety of chemicals and cleaners are also used to remove impurities that are found in most fibers. Before the fabric can be sent to the companies that manufacture clothing and textiles, color (and in some cases design) is added.

Activity 15

Using the internet with an adult's permission, books or knowledgeable individuals, research the advantages, disadvantages, and possible uses of the following fiber types.

- cotton
- wool
- acrylic
- linen
- acetate
- nylon
- silk
- rayon
- polyester

REFLECT:

How would you explain the advantages and disadvantages of your favorite fiber type to another 4-H member or trusted adult? Why should you know and understand the fiber types of clothing items?

APPLY:

How would you apply what you learned in this activity the next time you plan to go shopping for clothing items?

Care Labels and Caring for Your Clothing

You may wonder about the labels you find sewn into the seam of a garment or maybe even printed inside the back neckline of some shirts and tops. Likely the most important information you'll find on a label – and the reason people read them – is to learn the size, type of fabric and how it should be cared for. The right care is important for every clothing purchase you make. Following the directions for cleaning your garments should help keep them looking new, and they should last longer when properly cared for. Additional information you should find on the clothing is the country where the garment was manufactured. It is also likely that you will find some labels with symbols that may not be familiar to you. If you would like to learn more, with adult permission you may wish to do an internet search for laundry care symbols and their meaning. You may be surprised by what you discover!

The washer and dryer may be two of the most important appliances in your home. Sometimes, people don't have a washer and dryer in their home, so they use a business called a laundromat or coin laundry, where they pay to use the washers and dryers. Although it takes time to load your dirty laundry and take it there, you can wash and dry multiple loads at one time before returning home with clean items. When doing the laundry that has been sorted, it is important for you to know how to operate the washer and dryer. Be sure to check with a parent or another adult to help you learn how these machines work. They may also want to tell you about the importance of safety with both appliances.

There are many brands and models of washers and dryers. Some basics about each will be helpful for you to know. There are two types of washers: front-loading and top-loading. The HE in washers stands for high efficiency. These high-efficiency washers use less energy and water than top-loading washers. Detergents that are labeled HE are typically recommended for use in these washers. All washers generally



have at least three basic cycles. The normal or “regular” cycle likely is the most used. As you are learning the basics of assisting with doing the laundry, we recommend that you work with an adult after sorting the clothes for laundering so they can help you learn the differences in the washing cycles. We also recommend adult assistance with learning to use the dryer. The following pointers will help you with other things you need to know before “doing” the laundry.

Simply rinsing clothes in water will not clean them. Without soap or detergent, water remains on the surface of the fabric. The water drops clump together and do not spread, mix with dirt, or penetrate the fibers. Water hardness affects how well soaps and detergents work.

Water hardness is measured by the amount of calcium and magnesium (minerals) in the water. This measurement is usually expressed in “grains” per gallon. Generally, water with 0 to 3 grains hardness is considered soft. Water with more than 10 grains is very hard. Over 18 grains of hardness is so extremely hard that no amount of detergent will provide thorough cleaning. Indiana’s water hardness ranges from about 4 to 38 grains-per-gallon. If the water hardness exceeds 10 grains, it helps to install a water softener (a salt-based solution) or a water conditioner, which is less expensive and is more eco-friendly. Another option is to purchase water softening products that can be added to the wash water.

Pretreating. Accidents will happen! Garments frequently become stained through normal wearing, resulting in the need for special attention. The earlier you treat spots or stains, the easier they are to remove. For oily stains, like those that occur on shirts or blouse collars, treating them with one of several commercial pre-wash products may be helpful. They are available as sprays, liquids, or sticks. Pre-wash products are effective for food and oily stains. Applying a liquid detergent or rubbing with bar soap is another useful technique.

Detergents have several functions. They remove, emulsify, dissolve and suspend soil in a washing solution. Detergents contain two important ingredients – surfactants and builders. Surfactants are wetting agents. They lower the surface tension

of water. Wetting agents permit water to spread out, penetrate fabrics more evenly and remove many water-soluble soils. Builders upgrade or protect the cleaning efficiency of surfactants. They also soften water, emulsify oil, suspend loosened dirt and maintain the desired alkalinity. Phosphates, carbonate, silicates, citrates and aluminosilicates are examples of builders. These are ingredients you may find on detergent labels.

Detergents come in several forms – liquids, powders and tablets. When mixed with water they create low or high amounts of suds. Detergents, not the amount of suds, get clothes clean. Too many suds can interfere with the washing action of a washing machine and can be difficult to rinse from clothes. Use the amount recommended on the package. To be sure of your amount, you measure the detergent. Use enzyme products for protein-based stains, such as grass, blood, food, ground-in dirt and perspiration. Dissolve powders completely before use or they may leave small white spots on fabric.

Laundry additives may also be helpful in laundering. Bleach helps remove problem stains, keeps white fabrics white, disinfects and deodorizes. Chlorine bleach performs all of these functions. Oxygen bleach does not offer as much bleaching power as chlorine bleach, but it is safe to use on most washable fabrics, finishes and colors. All bleaches are designed for use with detergents.

Fabric softeners help make clothes softer, minimize wrinkling and reduce static cling. They come in liquid or disposable sheets. Pouring liquid fabric softener directly on garments may cause greenish blue or blue-gray stains. Fabric softeners can build up on the fabric if you use too much or if used every time the fabric is laundered. Using too much fabric softener reduces the absorbency of the fabric.



Setting the washing machine isn't an exact science. The clothes need to circulate freely in the wash basket during washing and rinsing. Varying the size of items in the wash load helps washing action. A load made up of two sheets plus a number of small garments allows items to circulate freely. To save water and detergent, adjust the water level to fit the size of the load. Experience will help you decide what level to select. Read the owner's manual or ask an adult how to select the water temperature and wash cycle for the machine. Read permanent care labels on garments when selecting the water temperature and wash cycle.

Use hot water (approximately 130° F) for sturdy, all-white items such as socks, T-shirts, underwear and towels. Hot water is best for removing most soils from fabric. Also, detergents and bleaches are most effective in hot water. Warm water is a 50/50 mix of hot and cold water. It should be about 100° F. Although not as effective in removing soil, warm water is best for delicate fabrics and permanent-press items. Cold water is ineffective for removing heavy, greasy soil. If you want to save energy, use cold water for lightly soiled, delicate fabrics. Cold water is less than 60°F and it can be much colder in winter.

While some loads of heavily soiled garments may require a hot water wash, most loads can be washed effectively in warm water. You can compensate for the reduced effectiveness of detergents in cold water. Simply increase the amount of detergent used, bleach whenever possible and pretreat stains. Many washing machines have set rinse water temperatures. When selecting a hot wash, you also select a warm rinse. When selecting a warm wash, you get a cold rinse. A cold rinse is best for permanent-press, wash and wear, and synthetic fabrics because it minimizes wrinkling.

The "regular" agitation and spin speeds are designed to give the best cleaning and water extraction for sturdy fabrics and well-made garments. Some washers have a "gentle" or "delicate" cycle. A "gentle" cycle slows both the spin and agitation speeds. A "delicate" cycle automatically divides the wash and rinse times into brief periods of agitation, alternated with soaking periods. Garment construction and fabric sturdiness are the best guides for determining which cycle to use if that information isn't included on the permanent care label.

Don't over-dry. Most dryers give you several choices of heat selection and drying time. Permanent press cycles allow for cooling-down periods. End-of-cycle signals prompt you to remove garments immediately. Follow care labels to determine drying requirements. Heavy fabrics are best dried together because they require a longer drying period than lighter items. Use small loads when drying large, bulky items. When drying small loads of lightweight items, add one or two bath towels to get the best tumbling action. Over-drying can shrink garments. To avoid wrinkling, hang or fold them immediately.

Iron and press if needed. Many permanent-press fabrics and those with special fabric finishes may not need ironing. They may require only touch-up pressing. However, many fabrics made of natural fibers, such as cotton, do require ironing for a smooth, neat appearance. If garments need ironing, remove them from the dryer while they're slightly damp or dampen them with a small spray bottle or mister. Iron delicate garments and clothing requiring low iron temperatures first. It can take 10-12 minutes for an iron to cool from a high to a low temperature, but it takes only a few seconds to increase the heat. To avoid stretching items when pressing them, always follow the direction of the yarns in the fabric. Some garments may need touch-up pressing between wearing. Never press a dirty or stained garment.



Activity 16

Select six garments from your wardrobe and study the care labels. You may wish to create a chart to record your results.

Activity 17

Create a household stain removal kit. Make a list of the most common stains you need to deal with in your family laundry. With adult permission, look online for a stain removal chart (there are several different types). Compare the information and select one to download that meets the needs of your family. Print it off and include it in your stain removal kit. Compare items that are readily available at home with commercial stain removal products. Use this information to create a stain removal kit. Make sure to include your reasons for selecting each item in the kit.

REFLECT:

In what country(ies) were your garments made? Do the care instructions vary based on where the garments were made? Do the labels provide you with the needed information to appropriately care for the garment? How many different fiber types did you find on the six garments? What was the greatest number of fiber types you found in a single garment?

APPLY:

How can you share what you learned about care labels with others?

REFLECT:

What are the most common stains that you need to deal with in your family laundry? What did you learn from the stain removal chart you printed? How has the chart been useful for your family?

APPLY:

Where else in your home might you be able to use items from your stain removal kit?

Activity 18

Sort the family laundry. Make sure there are at least 8 different types of garments or items. Create a chart with what you discovered.

REFLECT:

How many loads did you have? How will the washing machine need to be adjusted for any special loads? Will any special detergent be needed? What was the dirtiest item? Did you have a need for stain removal on any of the garments? What type of clothes did you have the most of? What garment or garments required the gentlest care? Did you learn new skills during this activity? If so, please explain.

APPLY:

How can you share with others what you learned from this activity? If you had the chance to share information with others, please describe what you shared.

Activity 19

Do the family laundry for one week and record your experiences.

REFLECT:

How many loads did you do? How did you sort the clothes? How did you set the machine for each load? What laundry products were used? How did you dry the clothes, and if you used a dryer, how was it set? Were there any items you needed to press? If so, please describe what they were. Was pressing a new experience for you?

APPLY:

How might you share information from this activity with friends and/or family members?

Activity 20

Examine the labels of several different laundry detergents. You might include laundry tabs or pods and homemade laundry detergent. With adult permission, you might want to search the internet for a homemade laundry detergent recipe. Compare the amount that each detergent requires for washing clothes. Create a chart that shows each detergent and the amount used per load.

Activity 21

Find two items in your family's wardrobes that need to be hemmed or have repairs made to the hems. Make the repairs. Determine if they need to be hemmed with the sewing machine or by hand. Is this an item that could be repaired by using a hemming tape product? Take a before and after photo of the repairs you made. If you have not yet learned how to sew or repair a hem, you may be able to find an adult who can teach you how. Another option, with adult approval, would be to conduct an internet search on how to do the repairs.

REFLECT:

What additives are in the detergents and what do they do? Are there additives that would be helpful for your family's needs or should not be used by your family? Does anyone have allergies to any of the additives?

APPLY:

If you have a friend or family member who has allergies, how would share what you learned about laundry additives? And why would you share the information?

REFLECT:

Describe the items that needed repair and which process you used to make the repairs. Was this the first time you hemmed an item or repaired a hem?

APPLY:

How could you utilize hemming skills in the future? Who else do you know who might benefit from learning to hem their clothing?

Activity 22

With adult approval, search online for suggestions on how to organize your clothes with simple, do-it-yourself ideas. Plan and reorganize your most unorganized space.



REFLECT:

What was your most unorganized clothing space? What did you do to reorganize this space? Have you been able to maintain your organization since you did this activity? Did you purchase any special items for organizing or did you make something yourself? Include before and after photos with your answers.

APPLY:

If you were to do this activity again, what space would you organize and why? How can researching and creating storage spaces help in your home?

Money and Careers

Understanding clothing prices

Retailers price items to sell. Sometimes when those items do not sell in the time period that a retailer predicts, the retailer needs to make room for the next season's items before what is currently in stores becomes undesirable. As a result, the items are sold at a discounted price, often labeled as "sale" or "clearance" items. You can sometimes make a great buy if your timing is right (such as close to the end of a retail season) and a retailer has the size you're looking for.



Activity 23

Visit a local retailer that sells clothing. Look at the price ranges for this activity and find articles of clothing, shoes, or accessories at full price that you would like to wear within these categories. If you cannot locate an item within the given price range, indicate that below.

The store(s) I visited:

Price range	Article of clothing, shoes or accessory	Price
Up to \$10.00		\$
\$10.00-\$25.00		\$
\$25.00-\$50.00		\$
Over \$50.00		\$

Now explore the store for sale or discounted items.

Price range	Article of clothing	Original price	Sale/discounted price
Up to \$10.00		\$	\$
\$10.00-\$25.00		\$	\$
\$25.00-\$50.00		\$	\$
Over \$50.00		\$	\$

REFLECT:

What surprised you about your clothing, shoe, or accessory finds? If you were to purchase all of the items you found at full price, what would you have spent? If you purchased all of the sale items you found, how much would you have saved versus paying full price for those same items?

APPLY:

If you were responsible for purchasing clothing for your family or household, how would you take advantage of the changing of the seasons or overstock of store items? Would you prefer to spend more money when trends are new or wait a little bit to save some money? Why did you choose that response?

Activity 24

Many retailers provide sale or discount events that will save consumers money compared to paying the manufacturer's suggested price. This can be done in various ways; some will save you money, and others will entice you to spend more money without realizing it. Explore different types of sales and discounts and explain them in your own words.

Buy One, Get One (BOGO Sale): _____

Name a store or item you have noticed that uses this type of sale:

30% Off Sale: _____

Name a store or item you have noticed that uses this type of sale:

\$5 Off Sale: _____

Name a store or item you have noticed that uses this type of sale:

Price Matching: _____

Name a store or item you have noticed that uses this type of sale:

Bag Sale (most often found at small thrift stores): _____

Some stores use the “Buy More, Save More” sales pitch. How is this beneficial or detrimental to the customer? How is this beneficial or detrimental to the business?

If you want to purchase a shirt that retails for \$25 and the rack says items are being sold at 30% off, what will the subtotal on your receipt be?

If you want to purchase a pair of pants online that retails for \$45 but has been marked down by \$3, and you find a coupon code for 20% off, what will the subtotal in your shopping cart be?

If you want to purchase athletic shoes that retail for \$75 and are being sold at 10% off, what will the subtotal on your receipt be?

Indiana’s sales tax is currently 7%. When you add sales tax, what will your receipt total be?

REFLECT:

In what ways does learning how to calculate subtotals help you in the decision-making process? When might a sale or discount event entice you to spend more money than you originally budgeted for or planned?

APPLY:

What types of sales or discount events are worth attending? Which types of sales or discount events are worth avoiding?

Learning about personal style and your clothing

The purpose of this next activity is to begin thinking about personal style in terms of your clothing selections, the quality of garments, and the ways in which parts of a wardrobe can be seen as an investment. According to the Collins Dictionary, a trend is “something that becomes accepted or fashionable, and that a lot of other people copy.” Trends often emerge quickly and then fade as the next trend is set. A timeless item is considered something “so good or beautiful that it cannot be affected by changes in society or fashion.”

Activity 25

Interview an individual who you think has good style. Ask about their wardrobe. Create your own questions or use some of the questions provided below. Record the questions and responses.

- What are some memorable clothing trends you adopted?
- What trends did you choose to avoid, and why did you avoid them?
- How would you describe your personal style preference?
- Where do you purchase most of your favorite wardrobe items?
- How willing are you to adopt clothing trends as they develop, and why do you feel that way?
- What items do you currently have that you would consider “on trend?”
- How do you determine your clothing budget, especially as it relates to trends?
- In your opinion, what is the highest quality item you own?
- How do you blend timeless, quality items with trendy items?

Sources:

<https://www.collinsdictionary.com/us/dictionary/english/fashion-trend>

<https://www.collinsdictionary.com/us/dictionary/english/timeless>

REFLECT:

How do your personal thoughts about purchasing trendy items match or differ from the person you interviewed? What clothing item(s) do you have that are considered trendy and may last for only a short while? What clothing item(s) do you have that are considered timeless and high quality, likely wearable for years?

APPLY:

How do you define quality as it relates to clothing, shoes, or accessories? Who is someone you see as stylish? What makes that person stylish?

Thinking about a career – learning about product development

Product development is anything involved during the process of developing a product and getting it to market. Product development can also involve revising current products. An important part of product development is collecting and giving feedback on the products.

Activity 26

Locate at least 2 pieces of clothing or fabric that are freshly stained. Choose 2 different pretreatment sprays or laundry detergents to “test” on these stains. Pretreat each piece of clothing or fabric with a different pretreatment spray or detergent. Handwash or use a machine to wash each piece of clothing or fabric separately. Prepare a verbal or written report to share your results. Also include any recommendations for product improvement and product marketing.

REFLECT:

How did you decide which product was the best for removing stains? What information would be important to include when giving product feedback to a manufacturer?

APPLY:

How could you test and provide feedback on other products used in the clothing and textile industry? Please give examples of products and how you would test them.

Glossary

Additives – substances added to grooming products in small quantities to improve or preserve them.

Blended fibers – a combination of two types of fibers to change or improve the texture of the fiber.

Complementary colors – two colors that are directly opposite one another on the color wheel.

Detergent – a powder or liquid used to clean clothes.

Emulsifier – a substance that keeps oil and water from separating.

Hard water – Water that contains high levels of minerals.

Hue – refers to the color names: red, blue, or yellow green.

Intensity – the brightness or dullness of a color.

Manufactured fibers – fibers that are made from chemicals.

Monochromatic colors – the shades or hues of a single color.

Natural fibers – fibers that come from plants or animals.

Primary colors – red, yellow, and blue (as found on the color wheel).

Principle surfactants – the detergents that create foam and clean hair.

Secondary colors – are created by combining any two of the primary colors.

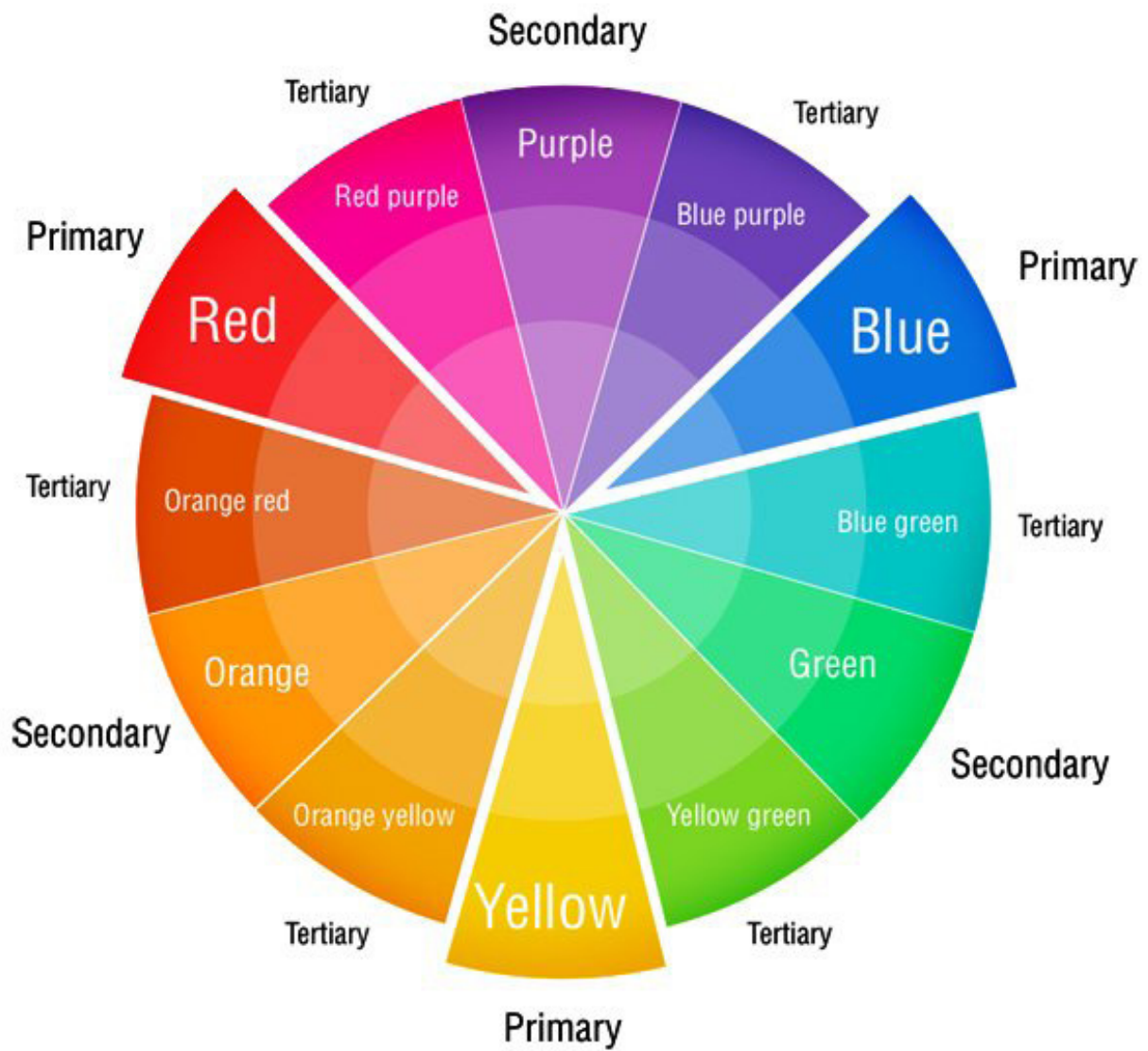
Soft water – Water that has been treated to reduce the level of minerals, such as magnesium or iron.

Tertiary colors – colors that are made by mixing a primary color with a secondary color.

Thrift stores – stores that offer unique or like-new clothing at lower than general retail prices, though their selections may be very limited.

Value – the lightness or darkness of a color.

Color Wheel





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Find out more at
extension.purdue.edu/4-H/projects

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