Science of Style badge

Purpose: This badge teaches Seniors the science behind makeup, perfume, fashion fabrics and skin care products.

Step 1: Make and test a homemade product.

Use the recipe below or search Pinterest. Make the recipe. Then, find a store-bought product similar to the one you made. Using the included test form, have your friends and/or family members test out your two products and rate them. Be sure you don’t let them know which one is homemade and which is purchased. Record your results.

Organic Vanilla Body Cream
2 tbsp. shea butter
2 tbsp. virgin coconut oil
4 tbsp. sweet almond oil
1/2 tsp. essential oil

Blend all of the ingredients together in a small food processor. Spoon into a small, dark jar. Store in the fridge for up to six months. Yields approximately 4 oz of cream.

Step 1: Explore the science of color.

How do clothes end up the color they are when you buy them? Typically, it’s because they are immersed in a dye solution. Dyes are created from both natural and synthetic materials. A natural dye may come from plants or insects. Synthetic dyes are created by chemists. Find out how natural dyes work by dyeing your own fabric or yarn.

Materials:
Natural fabric like cotton, wool, silk or muslin
Red cabbage, paprika, coffee grounds or turmeric
White vinegar
Cold sater
Newspaper or drop cloth

Wash but do not dry your fabric. Blend one part vinegar to four parts water for the fixative solution. Soak your fabric in the solution for an hour. Rinse with cool water when done. Put your cabbage, coffee grounds, paprika or turmeric in a stainless steel or glass pot and fill with water. Simmer the dye material and water on the stove for about an hour and strain out any loose material. Add your fabric to the pot and bring to a slow boil before simmering for about an hour. Turn off the heat and let the fabric sit in the water for as long as you can. Wash the fabric in cold water, as some of the color could run. Dry as usual.

Additional steps on next page

Remember, girls gain confidence and leadership skills through girl-led activities. Whenever possible, let the girls take charge when completing activities. Adult help is necessary for guidance, support and safety.
**Step 3:** Create a scent.

Remove the stem from a flower you like, and combine with odorless oil. Let it sit for a few weeks. Then pour the oil into a small spray bottle. Test the fragrance on your friends. Ask them to compare your product with commercial colognes and perfumes. How do the ingredients in your scent compare with ingredients from a store-bought fragrance? Based on your results, design a print advertisement or commercial to sell your fragrance.

**Step 4:** Make a timeline of fashion trends to investigate the sociology of style.

How did social, political and technological developments affect the fashion of the last 100 years or more? For instance, patriotic fashion was popular among Americans during World War II. Find old magazines or visit a local museum to explore fashions of the decades, then make a timeline of your discoveries. The St. Louis Art Museum is a great place to see clothing trends by viewing the paintings and artifacts from earlier civilizations. The Missouri History Museum includes exhibits, such as the 1904 World’s Fair, featuring period-clothing of fair-goers; and online exhibits, including Uncommon Threads: Stories of Missouri Brides.

**Step 5:** Formulate future style by creating your own science of style product.

Designers and engineers are already coming up with innovative fashion technology products, including smart watches and 3D-printed clothing. Come up with one idea of a fashion product you would develop. Would it be just for looks? Would it meet a need in the sports or healthcare industries? It’s up to you. Draw your design and write up the idea in detail.

Congratulations! You have now earned this badge!

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**Beauty Product Test Sheet**

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<tr>
<th>Homemade Product</th>
<th>Store-bought Product</th>
<th>Notes</th>
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