



Science Experiment: Candy Chromatography Project: Science, Biotechnology

Supplies:

- Skittles
- Coffee filter
- Pencil
- Aluminum foil
- Salt
- Water
- Tooth picks
- Clear glass cup

Time: 15-20 minutes

What to Do:

1. Start by choosing one of each color of Skittles, and placing them in a line equally spaced apart on the foil. Dip your finger into some water and make a small drop next to each candy. Place one Skittle in each drop, and let sit for about a minute to let the color come off. Afterwards, you can eat the candy.
2. Cut an approximately 3 inch x 3 inch square out of a coffee filter. About a half inch from the bottom, draw a line in pencil, and then 5 (or however many colors you are testing) small dots equally spaced along the line. Underneath, label which color will go on each dot.
3. Dip a tooth pick into your first colored drop of water that you created in Step 1, and make a small dot of color on your coffee filter where you made your first mark. It is best to keep these dots as small as possible. Let the liquid dry, and then repeat this step twice more to get a lot of pigment on your filter paper.
4. Pour about a cup of water into a bowl, and add about 1/16- 1/8 teaspoon of salt. Mix well. Add a very small amount of the salty water to the cup, just enough to cover the bottom.
5. Place your coffee filter paper in the cup-- the water should only touch the bottom, and not reach the colored marks you made.
6. As the salted water travels up the paper through capillary action, it will carry some pigment along with it. Different pigments have different affinities for the salt water, causing them to travel varying distances up the filter paper.

Reflect:

1. What happened with the different colors?
2. Why do you think this happened?
3. What do you think would happen with M & Ms?

Apply:

1. How is chromatography used in other ways?
2. What do pigments tell us about colors?
3. How does this relate to skin pigment?