

Candy Chromatography

C7

PURPOSE & HYPOTHESIS

I was trying to see the colors in “M&M’s” and “Skittles”.

I think that I will see green and light green in “M&M’s” and “Skittles”.

RESEARCH

Green M&M's:

Observations:

- The M&M's are dark green
- There is a little bit of white on the M&M's (for the M).
- The M&M's are flat.

Prediction:

I think the M&M's will become lighter with water.

Green Skittles:

Observations:

- Green Skittles are lighter green.
- The color of the green Skittle looks like throw-up.
- The Skittles are bigger than the M&M's.

Prediction:

I think that the Skittles will become even lighter with water.

MATERIALS

I used:

-2 green Skittles -2 coffee filters

-2 green M&M's -Scissors

-Aluminum foil -Metric ruler

-Water -Salt

-Dropper (pipet) -2 tall glasses

-Toothpicks -Tape

-Pencil

EXPERIMENT

1. Make your filter paper strips and cut them out from the filter paper.
2. Using the pencil, write M&M's on one strip and Skittles on the other strip.
3. On the bottom side of strip, use a ruler to find the point 1 cm from the bottom of the paper. Make tiny pencil dots at 2 and 4 cm across.
4. Study the color of green Skittle and green M&M, and record any observations and predictions.
5. Next, start removing the dye from your candies. Cut out two small (about 2 cm X 2 cm) pieces of foil.
6. Place two separate drops of water on top of each of the two pieces of foil.
7. Place a green M&M on each drop on one piece of foil. Put the green Skittle on each drop on the other piece of foil.
8. Wait about a minute for the candy color to seep into the water.
9. Dip a toothpick into the tiny pool of green M&M dye. Touch it just above where you made the pencil dot at 2 cm on the filter strip labeled "M&M." Dab another dot at the 4 cm on the same green M&M filter paper.
10. Using another toothpick and dip it into the tiny pool of green Skittles dye. Touch it just above where you made the pencil dot at 2 cm on the filter strip labeled "Skittles." Dab another dot at the 4 cm on the same green Skittles filter paper.
11. Let the tiny dots dry. This should only take a minute.
12. Make the chromatography solution by pouring three cups of water in a bowl, and adding 1/8 teaspoon of salt.
13. Pour some salt solution into each of your tall glasses or jars. The liquid should make layer about a one centimeter deep.

Experiment, Continued

14. Hang the filter papers on top of the glass so that the bottom of filter paper is just touching the salt water in the bottom of the glass.
15. Wait for a change in color.

PHOTOS



ANALYSIS

I used chromatography to see the colors in the M&M's and the Skittles.

Skittles:

We saw yellow and light green.

M&M's:

We saw green and blue.

CONCLUSION

In conclusion, chromatography helps us figure out what is going on in the M&M's and Skittles.

REAL WORLD CONNECTION

In the real world, chromatography is used in big candy companies.

WORKS CITED

I used Education.com for my science project.