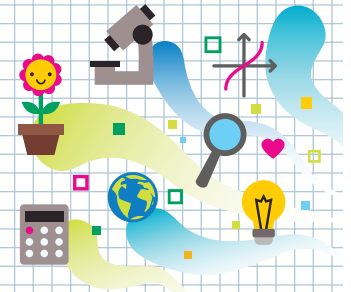




HEADS IN, HEARTS IN

Chromatography: What's That?

Instructions for Set-Up



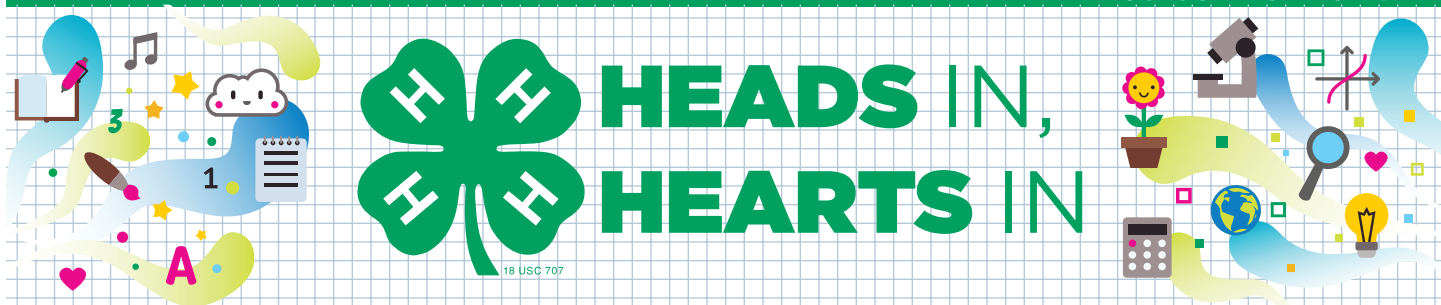
Supplies

- “Guide for Families” handout
- Clear plastic standup display (optional)
- Paper towels (one 2-inch by 4-inch strip per participant)
- Scissors
- 3-ounce paper cups (one per participant)
- 3 or 4 permanent markers
- Rubbing alcohol (about a tablespoon per participant)
- Display table

Activity Preparation

- ▶ Purchase or locate items on the supply list.
- ▶ Print one copy of the “Guide for Families” handout. Laminate or place in a clear plastic standup display to allow participants to see it more readily.
- ▶ Cut the paper towels into strips approximately 2 inches wide by 4 inches long.
- ▶ Set up the display table with the supplies.





Chromatography: What's That?

Guide for Families

Learning Objectives

What you need to know:

Chromatography is a way to separate the parts of a mixture based on how much of each part is present. The parts might be separated based on size or weight.

What you will do and learn:

In this activity, you will discover that there may be many different colors combined to create the final marker color that we see.

Instructions:

What do you think will happen when...?

1. Take a strip of paper towel.
2. Using the permanent marker, place a medium-sized dot approximately $\frac{1}{2}$ inch from one end of the strip of paper towel.
3. Pour just enough rubbing alcohol into the bottom of the cup to cover the entire bottom.
4. Place the dotted end of the paper towel into the cup so the end touches the bottom of the cup.
5. The end of the paper towel should be submerged in rubbing alcohol.
6. Observe the paper towel soaking up the rubbing alcohol. Observe what happens to the dot. Talk about what you see. (Chromatography occurred when the chemical mixture [the spot made by the marker] was separated by a liquid [rubbing alcohol] into parts. You saw those parts when the alcohol was absorbed and moved up the paper towel.)
7. Why do you think some colors moved farther than others from the dot?