Chromatography Experiment

Purpose:

Manufacturing medicine starts with many different materials. Once those materials are mixed together, parts of it need to be removed and purified through a process called chromatography to produce the final product—medicine. Today, you will be making your very own medicine to take home!

Materials:

- Gloves
- Lab Coat
- Pipette
- Agent X mixture
- Food coloring
- Plastic cup
- Toothpick
- Paper towel
- Cup with water
- Tape
- Scissors
- Plastic conical tube filled with Isopropyl alcohol

Procedure:

1. Put on lab coat and gloves.
2. Use the pipette to add some Agent X mixture to your plastic cup.
3. Add a few drops of food coloring (1 or more colors) to the Agent X mixture to create your product.
4. Mix your product with a toothpick.
5. Take your toothpick and trace a thin line of your product onto the paper towel about an inch from the bottom.
6. Find the larger cup that has water in it. Drape the paper towel over the side of the cup into the water with the line of product hovering right above the water.
7. Tape the paper towel to the side of the cup to prevent it from moving.
8. Watch as the color travels up the paper. What colors do you see?
9. Pick a color to cut out of the paper.
10. Place the colored piece of paper towel in the tube with Isopropyl alcohol.
11. Close the cap and shake. What happens?

Conclusion:

This color in the liquid is your final product! This experiment shows how you can isolate very specific things from a mixture of different materials.