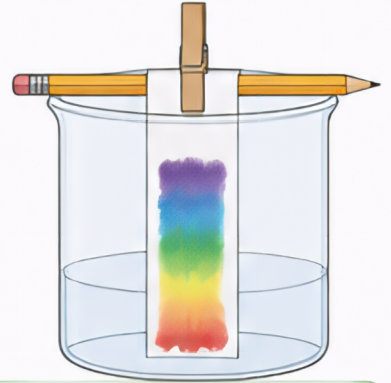




OBSERVING THE CHROMATOGRAPHY OF DIFFERENT MARKERS

Chromatography is a science technique that separates the different colors in a mixture. We can use it to see what colors are hidden in our markers!



QUESTION

What colors are made up in different markers?

MATERIALS

- Washable markers (at least 3 different colors)
- Coffee filters or chromatography paper (or thick white paper)
- Clear cup or jar
- Water
- Pencil
- Clothespin
- Scissors
- Ruler (optional)
- Paper towel

PREDICTION

How many colors do you think you will see in each marker? Why?

PROCEDURE

- 1 Cut strips of coffee filter or thick white paper about 2 cm wide and 10–12 cm long.
- 2 With a marker, draw a small dot about 1.5 cm from the bottom of each strip. Use a different strip for each marker color.
- 3 Fill a clear cup or jar with about 2–3 cm of water.
- 4 Place one strip in the cup so the bottom edge is in the water, but the dot is above the water line.
- 5 Lay a pencil across the top of the cup and clip the strip to the pencil with a clothespin so it hangs straight down.
- 6 Wait and watch! As the water moves up the paper, it will separate the colors in the marker.
- 7 When the water is near the top, remove the strip and place it on a paper towel to dry.
- 8 Repeat with the other marker colors.

OBSERVATIONS – Draw or describe what you see for each marker.

Marker Color: _____

Colors observed: _____

Marker Color: _____

Colors observed: _____

Marker Color: _____

Colors observed: _____

CONCLUSION

What did you learn from this experiment?

THINK FURTHER

Which marker had the most colors? Which had the fewest?
Why do you think some markers have more colors than others?
