

Picturesque Planets



Our solar system is made up of 8 planets. When seen through powerful telescopes, the images of the planets are magnificent! Take a look of the planets through pictures taken by the National Aeronautics and Space Administration (NASA) at the link below this activity. (solarsystem.nasa.gov/planets/overview)

You can create your own beautiful planet using a process called chromatography, the separation of a mixture by passing it in solution or suspension or as a vapor (as in gas chromatography) through a medium in which the components move at different rates.

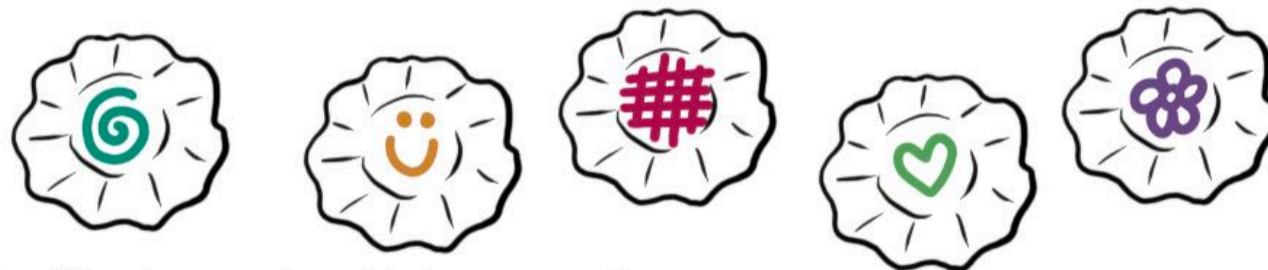
What you need:

- Paper towels or coffee filters
- Markers (Not permanent)
- Cups
- Water



What you do:

1. If using paper towels, prepare them by cutting out large circles (similar to the size of a coffee filter).
2. Lay the coffee filters/ paper towels on a prepared surface, such as newspaper or plastic table covering.
3. Choose one color of marker for each coffee filter/ paper towel and draw lines, dots, or other shapes.



4. Fold the coffee filter/ paper towel into a cone shape.
5. Place the colored coffee filter/ paper towel into a shallow cup of water.



6. Wait and watch while the water creeps up through the coffee filter/ paper towel.
7. Once the water reaches the edge of the coffee filter/ paper towel, take it out of the cup and lay it out on a flat, protective surface to dry.

Questions to think about:

- What happened as the water crept up through the coffee filter/ paper towel?
- Did different colors of markers produce different results?

Why does this work?

- The water separated the various pigments in the markers to reveal how each color was created.

Challenges

- Give your new planet a name and write a story about what life on your new planet would be like. We would love to see a picture of your new planet and read all about it.