

# Marbled Cards

## Activity Instructions

Mess-O-Meter



“Have Towels Ready”

### Materials

- Plate
- Foam shaving cream
- 2 or more colors of food coloring
- Index card
- Toothpick
- Paper
- Magnifying glass (optional)
- Pipette (optional)
- Ruler (optional)

### Overview

Paper marbling blends science and art to make swirly patterns. The colors float because they are less dense than the shaving foam, so they stay on top of the foam until pressed down by the paper. Shaving cream molecules have a water-loving (hydrophilic) end and a water-hating (hydrophobic) end. Liquid food coloring is also water-loving. The food coloring doesn't soak all the way into the shaving cream because it only can mix with the water-loving ends of the soap molecules, but the water-hating ends repel it, or push it away. Even if you swirl the colors, you'll still see they don't completely mix into the shaving cream!



### Procedure

1. Spray about 1 inch layer of shaving cream on the plate.
2. Spread out the shaving cream to be fit the size of your paper.
3. Add drops of food coloring on top of the shaving cream. Repeat this step with other colors.
4. Using the toothpick, drag the toothpick through the surface of the shaving cream and food coloring.
5. Once you're happy with how your shaving cream looks, take your paper and place it on top of the shaving cream.
6. Pull the paper away, and with your index card scrape off the shaving cream from the paper.
7. Let the card dry, and clean up your area.

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