

Fireworks in a Jar

WHAT YOU'LL NEED:

- Clear Jar
- Water
- Water-based Food Coloring
- Cooking Oil

HOW TO:

- (1) Fill 3/4 of a jar with warm water;
- (2) In a small bowl, add 3 tablespoons oil;
- (3) Add 6 drops of differing colors of food coloring to the oil;
- (4) Slowly pour the oil into the jar; and
- (5) Enjoy the fireworks!



The Science: The density of water is less than oil, causing the oil to sit above the water. Once the water-based food coloring is added, it's heavier weight causes it to sink beyond the oil layer, into the water and dissolve.

Shaving Cream Rain Clouds

WHAT YOU'LL NEED:

- Clear Jar
- Water-based Food Coloring
- Shaving Cream
- Water
- Dropper

HOW TO:

- (1) Dilute 10 drops of blue food coloring in 1/2 cup of water;
- (2) Fill your clear jar with water;
- (3) Squirt shaving cream on top to make the cloud.
- (4) Using a dropper, squirt the colors on top of the shaving cream until the "cloud" becomes too heavy and the "rain" begins to fall!



The Science: A cloud will rain when the water vapor becomes so heavy it can no longer hold it. Here, the shaving cream represents the cloud and the food coloring represents the water vapor turned rain.

DIY Lava Lamp

WHAT YOU'LL NEED:

- Clear Jar
- Cooking Oil
- Water-based Food Coloring
- Alka Seltzer Tablets

HOW TO:

- (1) Fill a jar with 1/4 cup water;
- (2) Add 3/4 cup cooking oil;
- (3) Drop food coloring on top of the oil;
- (4) Add an alka seltzer tablet to the jar; and
- (5) Watch the mixture bubble like a lava lamp!



The Science: In addition to exploring the density differences of water and oil, also observe the chemical reaction. When alka seltzer and water combine a chemical reaction occurs where a gas called carbon dioxide is released in the form of bubbles.