Crystal Lake Public Library
Learn • Enjoy • Explore

Elementary Take-and-Make

Lava lamps

Items included:

- **Bottle with vegetable oil**
- **Small bag of table salt**

Materials needed from home:

- **Water**
- **Food Coloring**

Instructions:

1. **Add water to the bottle leaving ½ - 1 inch of space at the top**
2. **Add food coloring of choice (lighter colors will allow you to see the reaction better)**
3. **Add salt and watch the reaction. You can add all the salt at once or a spoonful at a time. Add additional salt to begin the reaction again.**

What is happening?

- **Notice when the water is added to the oil the 2 liquids separate. This happens because the water is denser than the oil so the oil will rest above the water. You can observe this reaction again by closing the lid and shaking the bottle. Place the bottle on the table and watch as the liquids separate again.**

- **Adding the salt causes a chemical reaction that releases carbon dioxide gas. The gas bubbles up (because it is less dense than the oil). At the top the gas is released and the water bubble falls back down to start the process again.**