LAVA LAMP

SCIENCE SAFETY

PLEASE follow these safety precautions when doing any science experiment.

- **ALWAYS** have an adult present.
- **ALWAYS** wear the correct safety gear while doing any experiment.
- **NEVER** eat or drink anything while doing any experiment.
- **REMEMBER** experiments may require marbles, small balls, balloons, and other small parts. Those objects could become a CHOKING HAZARD. Adults are to perform those experiments using these objects. Any child can choke or suffocate on uninflated or broken balloons. Keep uninflated or broken balloons away from children.

INGREDIENTS

- Clear Plastic Bottle with Cap
- Vegetable Oil
- Food Coloring
- Water
- Alka-Seltzer

INSTRUCTIONS

STEP 1: Fill the clear plastic bottle ¾ of the way with vegetable oil. Describe and classify the vegetable oil by its observable properties.
STEP 2: Fill the rest of the bottle with water. Describe and classify the water by its observable properties.
STEP 3: Add several drops of food coloring.
STEP 4: Break the Alka-Seltzer into smaller pieces. Add the pieces to the bottle and observe. What happens? Make observations to identify the vegetable oil and water, based on their properties.

EXPLANATION

Oil and water do not mix. The oil stays above the water, since it is less dense than the water. When you add the Alka-Seltzer, it sinks to the bottom, dissolving in the water, creating a gas. The rising, gas filled, blobs of water push through the oil layer, to the top. Once at the top, the gas escapes and the blobs of water sink back to the bottom.

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SCIENCE BACKGROUND

Matter is anything that has mass and takes up space. Different kinds of matter exist and many of them can be either solid or liquid, depending on temperature. Matter can be described and classified by its observable properties. Measurements of a variety of properties can be used to identify matter. Different properties are suited to different purposes. Density is a physical property of matter, which tells how much matter is in a certain space, or volume. The density of an object makes it float or sink in a liquid like water. If something is denser than water, it will sink, if it is less dense, it will float.

I CAN STATEMENTS

- ✓ I can plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.
- ✓ I can make observations to identify materials based on their properties.

NEXT GENERATION SCIENCE STANDARDS CONNECTION

2 – Structure and Properties of Matter
5 – Structure and Properties of Matter