



SODA SHOWERS

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

- 10 Mentos
- Sheet of Paper
- Tape
- Index Card
- 2-Liter Bottle of Diet Soda

INSTRUCTIONS

STEP 1: Create a soda showers launcher tube by rolling the sheet of paper into a tube. Make sure the tube is a little bigger than the diameter of the Mentos. Use the tape to hold the paper in place.

Describe and classify the Mentos by their observable properties.

STEP 2: Open the 2-liter bottle of diet soda, place the soda on the ground, and put the index card over the opening. Describe and classify the diet soda by its observable properties.

STEP 3: Load the Mentos into the launcher tube.

STEP 4: Place the launcher tube directly above the opening of the 2-liter bottle of diet soda. Keep the index card between the bottle and your launcher tube.

STEP 5: Quickly remove the index card allowing the Mentos to fall into the 2-liter bottle of diet soda. Stand back and observe soda showers. Did dropping the Mentos into the diet soda result in a new substance?

EXPLANATION

When the Mentos drop into the soda, the carbon dioxide gas bubbles, in the soda, attract to the tiny dents on the surface of the Mentos creating a physical reaction. When this happens there is a rapid release of carbon dioxide gas creating soda showers.



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 materials. When two or more different substances are mixed, a new substance with different properties may form. This is considered a chemical reaction, which is a change that results in one or more new substances. A physical reaction does not result in a new substance.

I CAN STATEMENT

- ✓ I can plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.
- ✓ Conduct an investigation to determine whether the mixing of two or more substances results in new substances.

NEXT GENERATION SCIENCE STANDARDS CONNECTION

2 – Structure and Properties of Matter | Patterns
5 – Structure and Properties of Matter | Cause and Effect