



## SUGAR SNAKE

### 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

- Baking Soda
- Sugar
- Sand
- Isopropyl Alcohol
- Grill Lighter

### INSTRUCTIONS

**STEP 1:** Mix 4 tablespoons of sugar with 1 tablespoon of baking soda. Describe and classify the mixture by its observable properties.

**STEP 2:** Using the sand, create a mound and then a depression in the center of the sand mound.

**STEP 3:** Pour some of the isopropyl alcohol into the depression.

**STEP 4:** Pour the sugar and baking soda mixture into the depression.

**STEP 5:** Using the grill lighter, ignite the sugar and baking soda mixture and observe. Did igniting the sugar and baking soda mixture result in a new substance?

### EXPLANATION

When the baking soda is heated to a specific temperature, carbon dioxide gas is created. The pressure created from the release of the carbon dioxide gas, causes the sugar snake to grow. The snake gets its black appearance due to the heat caramelizing the sugar.



### 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.
- ✓ I can conduct an investigation to determine whether the mixing of two or more substances results in a new substance.

### NEXT GENERATION SCIENCE STANDARDS CONNECTION

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

