A Different Form

Purpose
To produce a different form of matter.

Materials
• 1 teaspoon (5 ml) baking soda
• 1 - quart (1-liter) plastic soda bottle
• 3 tablespoons (45 ml) vinegar
• 1 8-inch (2.3-cm) balloon
• Cellophane tape

Procedure
■ Pour the baking soda into the bottle.
■ Pour the vinegar into the balloon.
■ Attach the open end of the balloon to the mouth of the bottle. Use the tape to secure the balloon to the bottle.
■ Raise the balloon to allow the vinegar to pour into the bottle.

Results
The mixture starts to bubble and the balloon inflates.

Why?
A chemical change occurs when the vinegar and baking soda mix together. The balloon inflates because it becomes filled with the carbon dioxide gas produced. The starting Materials - were in the solid and liquid form, and one of the products from the reaction is in the gasiform.