CARBON FROM ROCK 6.2

Is carbon stored in rocks?

2 CH ₃ COOH	+	$CaCO_{_3}$	=	$H_{2}O$	+	CO_2	+	$Ca(C_2H_3O_2)_2$
acetic acid	calcium carbonate			water	carbon dioxide			calcium acetate

MATERIALS

- 12-oz plastic pop bottle
- Balloon
- Chalk (Optional: rock chalk)
- White vinegar
- Plastic bag
- Hammer
- Optional: mortar and pestle

DIRECTIONS

- 1. Powder 1–2 sticks of chalk in a plastic bag or with a mortar and pestle.
- 2. Add powdered chalk to plastic pop bottle.
- 3. Add ¼ cup vinegar.
- 4. Quickly attach balloon over top of the pop bottle to capture gas.
- 5. Shake up vigorously for 5 seconds.
- 6. Describe what you see occurring in the bottle as the vinegar was added.

REFLECTION

- 1. What gas is being produced as a result of this reaction?
- 2. How do you observe the gas release from the rock?
- 3. What chemical compound in the chalk is reacting with the vinegar?