

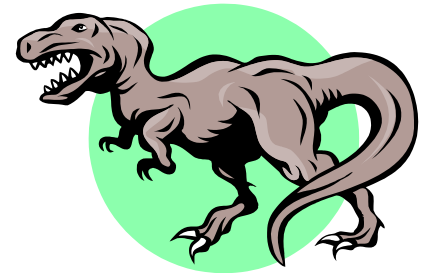
Name:

Date:

Class:

Dinosaur Breath Worksheet

Note: Questions 1-3 should be answered before the chemical reaction between the vinegar and crushed chalk is carried out.



1. Draw a picture of your experimental setup below. Label the container with the crushed chalk, the container with the vinegar, and the location of carbon atoms before the experiment.

2. Record the mass of the crushed chalk (container #1). _____

3. Record the mass of the vinegar (container #2). _____

4. Record the mass of the reactant products (exhaled dinosaur breath (CO₂) + water + calcium compound) after the experiment has been carried out. _____

5. By adding vinegar to the crushed chalk, how much carbon was released?

Hint: Add the mass of the crushed chalk and the vinegar before the experiment was carried out. Subtract from this value the mass of the reactant products. _____

6. Write the chemical reaction that occurred between the crushed chalk and the vinegar

_____ + _____ => _____ + _____ + _____

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7. Explain the reaction resulting from the addition of vinegar to chalk. In other words, what happened when you added the vinegar? What resulted from this reaction? What did you see, hear and smell?

8. Explain the carbon cycle and how it is possible that dinosaur breath was released when vinegar was added to chalk. It might be helpful to refer to the background reading to answer this question.

9. Explain why people are concerned with the rising level of carbon dioxide in the atmosphere (CO₂). What are engineers doing to rebalance the carbon cycle? What can *you* do to help rebalance the carbon cycle?
