**8.5E**

1. A chemist placed a black solid in a test tube and measured the combined mass. The chemist then put the solid in the tube over high heat for several minutes. After the solid and the tube cooled, the chemical measured the combined mass and found that it was several grams less than the original mass.

**Which statement provides a possible explanation for these observations?**

1. A chemical change occurred that involved the formation of a gas.
2. A physical change occurred that involved a change in the shape of a substance.
3. A chemical change occurred that involved the release of heat.
4. A physical change occurred that involved a change in the color of a substance.

**8.5E**

1. Identify the evidence of a chemical reaction in each scenario.
   * Carbon dioxide forms when vinegar and baking soda react. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   * Metal tools rust when left outside. \_\_\_\_\_\_\_\_\_\_\_
   * As was in a candle reacts with oxygen, it burns and releases heat. \_\_\_\_\_\_\_\_\_\_\_\_
   * Breaking a glow stick. \_\_\_\_\_\_\_\_\_\_\_\_\_
   * A kitchen smells like fresh-baked cookies. \_\_\_\_\_\_\_\_\_\_\_\_
   * A solid substance forms when you mix two liquids.

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**8.5E**

1. Place a piece of chalk in a plastic cup. Add 1 tsp of vinegar to the cup. Record your observations.

What evidence do you see that a chemical reaction is taking place?

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What type of new substance was formed?

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*\* Materials: Chalk, Plastic Cup & Vinegar*

**8.5E**

1. Describe two pieces of evidence that indicate a chemical reaction has occurred. Explain why each indicator, by itself, is not sufficient evidence of a chemical reaction.

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