

Name: _____ Teacher: _____ Pd. ____ Date: _____

STAAR Science Tutorial 08 **TEK 8.5E: Chemical Reactions**

TEK 8.5E: Investigate how evidence of chemical reactions indicates that new substances with different properties are formed.

Evidence of Chemical Reactions

- In a chemical reaction, the only absolute evidence of the chemical change is the creation of a new substance.
- There are a number of other possible signs of a chemical reaction, including:
 - change of temperature;
 - change in color;
 - release of a gas;
 - formation of a precipitate (insoluble powder) in a solution;
 - creation of light; or
 - change in taste or smell.
- In each of the following chemical reactions, the evidence of the reaction is listed:
 - Baking Soda / Vinegar: creation of gas, decrease in temperature.
 - Acid / Metal: creation of gas, increase in temperature.
 - Burning Wood: creation of light, increase in temperature, creation of gas.
 - Spoiling Food: change in taste and smell, creation of gas, change in color.
 - Cooking Food: change in taste and smell, change in color.
 - Firefly Light: creation of light, change in color.
 - Rusting Iron or Tarnishing Metal: change in color.

Practice Problems

In each of the following examples, state whether the change is physical or chemical:

1. Chopping wood: _____
2. Burning paper: _____
3. Boiling water: _____
4. Tarnishing metal: _____
5. Spoiling milk: _____
6. Cooking food: _____
7. Tearing paper: _____
8. Digesting food: _____
9. Melting ice: _____