Name:

Chemical Changes

**What are chemical changes?**

1. When atoms attach to other atoms, the forces that hold these atoms together are

2. During a , new substances with new properties form.

3. Evidence that a chemical change has occurred includes a change in or the formation of

4. Another term for chemical change is

5. The substances present before chemical change happens are , and those present after chemical change are

6. A chemical equation uses and to show that changes have occurred.

7. A chemical equation is because it shows the same numbers and types of atoms on both sides.

8. Because it shows the same numbers of each type of atom on both sides, a chemical equation shows that a chemical change obeys the law of

**What are chemical reactions?**

9. When elements or molecules combine to form a new compound, a reaction takes place.

10. When a more complex compound breaks down into simpler substances, a reaction occurs.

11.During reactions, elements change places.

12. Increasing the temperature or concentration of reactants the rate, or speed, of a chemical reaction.

**What are exothermic and endothermic reactions?**

13. The burning of a welder’s torch is an example of an reaction because it gives off lots of heat and light in a short amount of time.

14. Chemical reactions that occur during photosynthesis are reactions, because the energy supply must be constant for the reaction to continue.

Match the correct letter with the description.

a. chemical bond d. endothermic g. reactant

b. chemical change e. exothermic

c. chemical equation f. product

1. I use letters and numbers to represent the amounts of reactants and products involved in a chemical change. What am I?

2. I am a substance present before a chemical change. What am I?

3. I am the force that holds together atoms that attach to other atoms. What am I?

4. I am the type of chemical reaction that releases energy. What am I?

5. I produce new substances with chemical properties that are different from those of the original elements. What am I?

6. I am the substance produced in a chemical change. What am I?

7. I am the type of chemical reaction that absorbs energy. What am I?