Chemical Reactions

Fill in the blanks as you watch the video.

1. A chemical reaction is the process of one or more substances _________ to form new substances with different properties.

2. In chemical reactions, a new substance is formed from chemicals _________ with each other.

3. _________ are substances that enter a chemical reaction, while _________ are substances that are produced by a chemical reaction.

4. A chemical _________ is an expression using chemical symbols to represent a chemical reaction.

5. A plus sign is used to show that substances _________.

6. An _________ is used to show products yielded by reactants.

7. Label the reactants and the products in this chemical equation:

   _________    _________

   \[2H_2 + O_2 \rightarrow 2H_2O\]

8. The law of the _________ of mass says that mass cannot be gained or lost in a chemical reaction.

9. The number of _________ of each element must be the same before and after a chemical reaction.

10. A _________ reaction is where two or more simple substances combine to form a more complex substance.

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11. A ______________ reaction is where a substance breaks down into two or more simple substances.

12. A ______-__________ reaction is where atoms of one element replace atoms of another element in a compound.

13. A ______-__________ reaction is where atoms in two different compounds trade places with each other.

14. Chemical reactions involve _______ being given off or being absorbed.

15. An ______________ reaction releases energy and gives off heat.

16. An ______________ reaction absorbs energy resulting in the lowering of temperature.

17. Variables such as temperature, surface area, and concentration affect the _______ of chemical reactions, or the speed with which reactants turn into products.

18. The __________ ________ is the amount of material that comes in contact with other reactants.

19. _________________ is the amount of substance in a given unit of volume.

20. A ____________ is a substance that increases the reaction rate but is not changed by the reaction.