



Unit 2 – Matter and Chemical Change

Student Name _____

Class _____

Section 4

Chemical Reactions

- A chemical reaction takes place when two or more ...
 - molecular compound are mixed
 - ionic compounds are mixed
 - substances are mixed
 - substances combine to form new substances**
- Use the following chemical reaction word equation to answer the question.
wood + oxygen \longrightarrow carbon dioxide + water + energy released
The reactants in this chemical word equation are ...
 - wood and oxygen**
 - carbon dioxide and water
 - oxygen and energy
 - wood and energy
- A chemical reaction occurs when this evidence is present ...
 - a solution is formed
 - a change of state occurs
 - energy is needed or released**
 - the reaction is reversible
- The following word equation identifies what happens when hydrogen peroxide is left out in the sun. It changes to water and oxygen gas.
 - Water + Oxygen \longrightarrow Hydrogen peroxide
 - Hydrogen peroxide + Energy \longrightarrow Water + Oxygen**
 - Water + Energy + Oxygen \longrightarrow Hydrogen peroxide
 - Hydrogen peroxide + Oxygen \longrightarrow Water + Energy
- The reaction above is classified as ...
 - catalytic
 - exothermic
 - endothermic**
 - oxidization
- Fire keeps going because of three factors. These factors are ...
 - fire - water - air
 - fire – fuel - air
 - fuel – air - energy
 - fuel - air - heat**
- The following reaction takes place in the cells in your body.
food + oxygen \longrightarrow carbon dioxide + water + energy used to keep cells alive
($C_6H_{12}O_6$) (O_2) (CO_2) (H_2O)
This word equation represents ...
 - cellular respiration**
 - photosynthesis
 - transpiration
 - combustion



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8. The difference between a **combustion** reaction and a **corrosion** reaction is ..
- A. intensity
 - B. products
 - C. speed
 - D. reactants
9. To treat an injury in sport, **cold packs** are used to reduce the swelling where the injury occurs. These cold packs are examples of ...
- A. Endothermic reactions
 - B. Exothermic reactions
 - C. Combustion reactions
 - D. Corrosion reactions
10. Alexander performed an experiment with Alka-Seltzer and water. He carefully weighed the reactants and found that the total mass was 110 g. When he recovered the products and weighed them the combined mass was only 106g. The difference was 4g. What would account for the difference in mass?
- A. The mass of the reactants didn't account for the oxygen need for the reaction to occur.
 - B. The mass of the products didn't account for the gas bubbles that were released.
 - C. The total mass did not include the mass of the beaker he used.
 - D. The beaker had a crack in it and some of the water leaked out.
11. A catalyst was used in an experiment. The effect that the catalyst had was ...
- A. There was no effect at all
 - B. The reaction happened slower
 - C. The reaction produced more products
 - D. The reaction happened faster
12. Enzymes are catalysts used in our body to break down food. Without the presence of enzyme the reactions in our body would ...
- A. not occur at all
 - B. happen more quickly
 - C. require much higher temperatures
 - D. produce different substances
13. Chewing on a **TUMS** tablet enables the reaction that occurs in our mouth and body to happen faster. This is because we have increased the ...
- A. surface area
 - B. concentration
 - C. temperature
 - D. work of enzymes
14. Conserving mass means to keep the same amount. The **Law of Conservation of Mass** does not apply to nuclear reaction because ...
- A. this reaction can destroy mass
 - B. nothing happens to the mass in this reaction
 - C. energy is changed into mass
 - D. mass is changed into energy