

## Topic 7 - Chemical Reactions

- Different types of chemical reactions can occur when two or more substances combine to form new substances. Corrosion ( iron + oxygen + water → rust ) is this type of chemical reaction.
  - exchange
  - combination
  - displacement
  - decomposition
- A chemical change, which **releases** energy, is called ...
  - exothermic
  - endothermic
  - combustable
  - dangerously reactive
- Chemical reactions can be written as **word equations** which gives the names of all the reactants followed by an arrow which points to the names of all the products.  
eg. ( **iron + oxygen + water → rust** )  
The arrow in the word equation indicates ...
  - The rate of the reaction
  - The reactants produced
  - The products produced
  - What is used in the reaction
- A chemical equation may look complicated, but, by knowing what you know now, it should be much easier to understand
$$\text{HC}_2\text{H}_3\text{O}_2(\text{l}) + \text{NaHCO}_3(\text{g}) \rightarrow \text{NaC}_2\text{H}_3\text{O}_2(\text{aq}) + \text{H}_2\text{O}(\text{l}) + \text{CO}_2(\text{g})$$
This chemical equation happens when you mix ...
  - vinegar and calcium carbonate
  - carbon dioxide and flavored water
  - calcium carbonate and water
  - vinegar and baking soda
- 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 → Hydrogen peroxide
  - Hydrogen peroxide + Energy → Water + Oxygen
  - Water + Energy + Oxygen → Hydrogen peroxide
  - Hydrogen peroxide + Oxygen → Water + Energy
- Use the following chemical reaction word equation to answer the question.  
**wood + oxygen → carbon dioxide + water + energy released**  
The reactants in this chemical word equation are ...
  - wood and oxygen
  - wood and energy
  - oxygen and energy
  - carbon dioxide and water
- To treat an injury in sport, **cold packs** are used to reduce the swelling where the injury occurs. These cold packs are examples of ...
  - Endothermic reactions
  - Exothermic reactions
  - Combustion reactions
  - Corrosion reactions