**Physical Properties**

*A property that can be observed and used to describe a substance*

*Physical Properties can be identified without changing what the substance is*

* Color
* Shape
* Texture – how something feels when it’s touched
* Smell/odor (good/or bad)
* State – physical form. Ex- solid, liquid, gas
* Melting, freezing, condensing, and boiling/evaporation points
* Electrical conductivity - ability for a substance to conduct electricity
* Magnetism – ability to attract iron
* Solubility – ability to dissolve in another substance
* Ductility – ability to be pulled into wire
* Malleability - the ability to be rolled or pounded into sheets. Ex – aluminum

**Chemical properties**

*A chemical property is something that can only be observed by changing the identity of a substance*

* Color change
* Odor produced or changed
* Energy released (in form of sound, heat, or light)
  + - Flammability – ability to burn. Ex. Wood
    - Non flammability – inability to burn ex. Ash and smoke
    - Reactivity – ability to combine with one or more substances and form one or more new substances
* Ex. Iron is reactive to oxygen, creating rust. (iron + oxygen= rust)
  + - Non-reactivity – inability to combine with one or more substances to form new substances.
    - Ex. Chromium + oxygen = chromium + oxygen
* Bubbling or clouding in mixture
* Precipitate forms

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