1. Know how to convert between metric units. (King Henry)
2. How many liters are in 6 kiloliters?
3. If you read for 2430 seconds, for how many hectoseconds did you read?
4. If you are traveling at 39 kilometers per centisecond how fast are you traveling in meters per seconds
5. If the density of gold is 19.30kg/L what is the density in grams per milliliter?
6. Know how to convert between metric and standard units give the conversions.
7. How many meters are in 10543 feet?
8. Convert your weight in pounds to kilograms?
9. If you are traveling at 45miles per hour how fast are you traveling in meters per seconds
10. If the density of mercury is 13.6 grams per milliliter what is its density in pounds per cubic feet?
11. Know the types of matter and how to determine between each.
12. How are mercury and water different?

# PHYSICAL PROPERTY CHEMICAL PROPERTY

1. observed with senses 1. indicates how a substance

2. determined without destroying matter reacts with something else

 2. matter will be changed into a new

 substance after the reaction

1. How are orange juice and Gatorade different?
2. What are the four types of matter and how do they relate to the matter above?
3. Give one example of each of the types of matter above.
4. Know the difference between physical and chemical properties.
5. Name some physical properties of water.
6. What physical property of carbon are you using when you write with a pencil?
7. Give an example of a chemical property of oxygen.
8. Identify the following as a chemical (C) or physical property (P):

\_\_\_\_\_\_1. blue color

\_\_\_\_\_\_2. melting point

\_\_\_\_\_\_3. Density

\_\_\_\_\_\_4. reacts with water

1. Know the difference between a physical and chemical change.
2. If I cut a piece of paper into two pieces is that a physical or chemical change? Explain.

# PHYSICAL CHANGE CHEMICAL CHANGE

1. a change in size, shape, or state 1. a change in the physical and

2. no new substance is formed chemical properties

 2. a new substance is formed

1. Explain why cooking an egg is a chemical change.
2. Is boiling water a physical or chemical change? Explain
3. Metal changes color as it rusts. Is this a physical or chemical change?
4. Know the difference between solids, liquids, and gases.
5. What is the difference between the speeds of the atoms in each state?
6. Draw a representation of each state in the boxes below

|  |  |  |
| --- | --- | --- |
|  |  |  |

1. What is it called well a solid becomes a liquid?
2. Why can I compress a gas and not a liquid or a solid?
3. Know how to calculate density.
4. What is the equation of density?
5. A block of aluminum occupies a volume of 15.0 mL and weighs 40.5 g. What is its density?
6. Mercury metal is poured into a graduated cylinder that holds exactly 22.5 mL. The mercury used to fill the cylinder weighs 306.0 g. From this information, calculate the density of mercury.
7. What is the weight of the ethanol that exactly fills a 200.0 mL container?

The density of ethanol is 0.789 g/mL.