

PHYSICAL AND CHEMICAL PROPERTIES

Name _____

Per _____

1. What is a physical property?
2. Give 3 examples of physical properties.
3. Describe maple syrup using its physical properties.
4. When do physical changes take place?
5. Give 3 examples of physical changes.
6. What do chemical properties describe?
7. Give 3 examples of chemical changes.
8. Identify each change with a P (physical property) or C (chemical property)
 - _____ a. the color of a solution in a beaker...
 - _____ b. how much mass a mixture has...
 - _____ c. how flammable the liquid was...
 - _____ d. the length of a room...
 - _____ e. whether the metal could oxidize (rust)...
 - _____ f. the shape of an object...
 - _____ g. how dense an object is....

Identify each change with a P (physical change) or C (chemical change)

- _____ a. melting ice
- _____ b. burning paper
- _____ c. decomposition of old leaves
- _____ d. breaking glass
- _____ e. cooking
- _____ f. cutting a copper wire
- _____ g. tearing paper
- _____ h. rusting metal
- _____ i. evaporation of water
- _____ j. painting wood

DENSITY REVIEW

1. What is the density of a 32g block which measures 2cm on each side? **(show your work)**

2. Using everyday experience as your guide, match the following substances with their correct densities. Remember, the density of water is 1.00g/mL.

	<u>density (g/cm³)</u>
_____ air	a. 0.65
_____ wood	b. 2.30
_____ glass	c. 1.00
_____ ice	d. 0.92
_____ water	e. 0.0012

3. A rock has a mass of 9.2g and is placed in a graduated cylinder containing 24ml water; the water level increases to 30.8ml.

What is the volume of the rock? **(show your work)**

What is the density of the rock? **(show your work)**

4. If two objects are of equal mass, the one with the largest volume has the largest / smallest density.

5. If two objects are of equal volume, the one with the largest mass has the largest / smallest density.

6. Calculate: **(hint: use formulas from foldable)** **(show your work)**

a. $m = 10g$
 $v = 20ml$
 $D = \underline{\hspace{2cm}}g/cm^3$

c. $v = 1.2ml$
 $D = 0.8g/cm^3$
 $m = \underline{\hspace{2cm}}g$

b. $m = 12.5g$
 $D = 6.25g/cm^3$
 $v = \underline{\hspace{2cm}}cm^3$

d. $v = 120ml$
 $m = 40g$
 $D = \underline{\hspace{2cm}}g/cm^3$