

Chemistry and Matter



FORMAT

The test will consist of the following topics:

- the divisions of matter
- pure substances and mixtures
- physical and chemical properties
- physical and chemical changes
- density and specific gravity
- review

You may use your calculator for this test. But, if you want partial credit, you must **show your work**. Attempt every problem and do not leave any blanks.

VOCABULARY

compound	solution	chemical property	physical property	chemical reaction
element	mixture	chemical change	physical change	products
matter	chemistry	heterogeneous	pure substance	reactants
mass	volume	homogeneous	vapor	density

KNOW

- the divisions of matter
- the properties of matter
- chemical and physical changes
- the signs of a chemical reaction

BE ABLE TO

- calculate density and specific gravity
- identify elements, compounds and mixtures
- identify homogeneous and heterogeneous mixtures
- identify chemical and physical properties
- identify chemical and physical changes

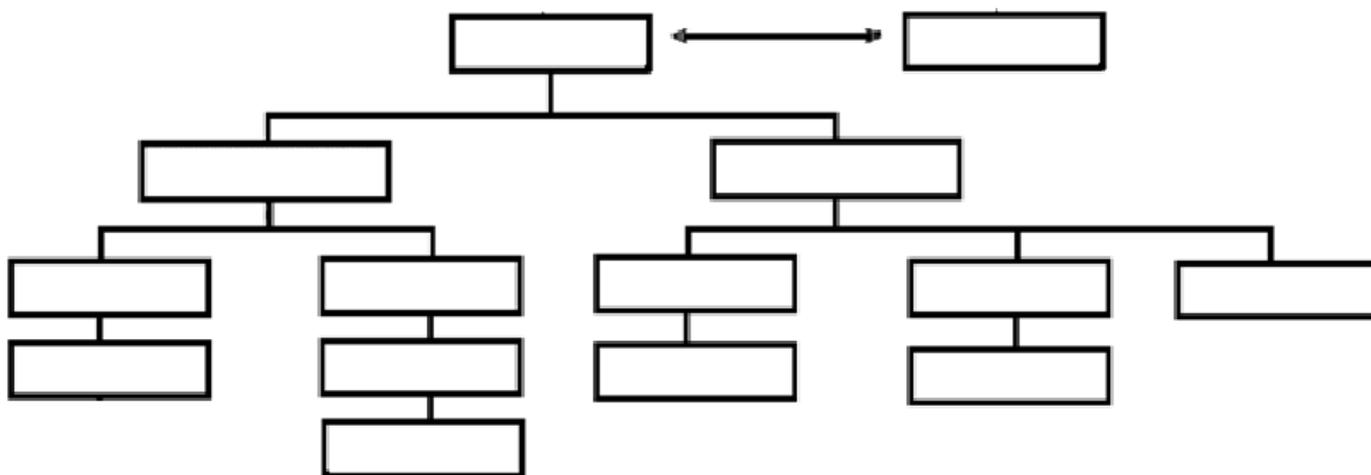
VIDEOS

- Divisions of Matter
- Properties of Matter
- Density and Specific Gravity

***"The talent of success is nothing more than doing what you can do, well."
- Henry W. Longfellow***

Practice

DIRECTIONS: Fill in the blanks with the divisions of matter.



DIRECTIONS: Identify the following as a **(P)**hysical or **(C)**hemical change.

- | | |
|---|--------------------------------|
| _____ 1. freezing water | _____ 6. burning a candle |
| _____ 2. an antacid tablet fizzing in water | _____ 7. copper made into wire |
| _____ 3. the melting of a Popsicle | _____ 8. burning a log |
| _____ 4. sweetening the coffee | _____ 9. shaving your beard |
| _____ 5. rubbing alcohol evaporates | _____ 10. melting wax |

DIRECTIONS: Solve the following density problems.

- _____ 1. A 47.3 mL sample of ethyl alcohol has a mass of 37.32 g. Find its density.
- _____ 2. What volume of ethanol is 116.0 g? (density = 0.789 g/mL)
- _____ 3. Find the mass of 121.5 cm³ of silver. (density of silver = 10.5 g/cm³)