



S10 Unit A: Chemistry – Matter Practice

Name: Key!
Date: Sept 10th 2013

See page 12-14 of the text to help you complete this assignment.

1. Explain, in your own words, the difference between chemical and physical properties of matter.

Physical Properties are a change of phase or shape
Chemical properties often need the addition of another chemical to be observed. These changes are hard to reverse.

2. Give an example of and explain **two**

a) Physical Properties

- i) state - solid / liquid / gas
- ii) colour - what colour it is before reacting

b) Chemical Properties

- i) pH → how acidic it is
- ii) combustion & ability to burn

3. Copy the list of chemical and physical properties of matter into the spaces below.

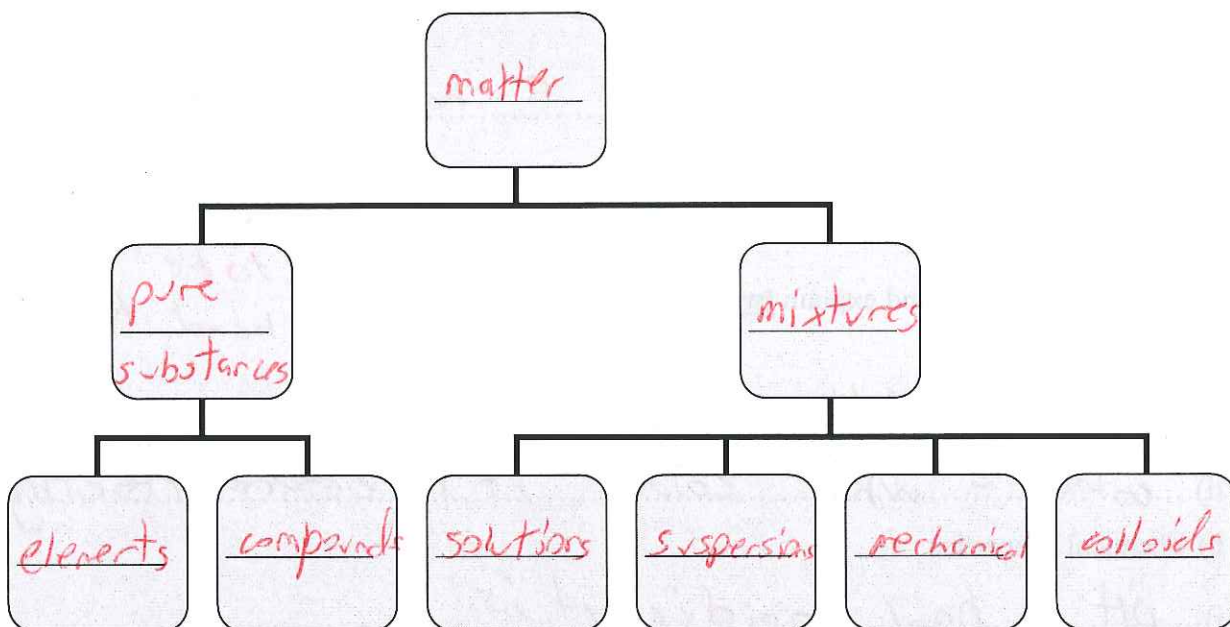
Chemical Properties:
ability to burn
flash point
behaviour in air
rxn with water
rxn with acids
rxn to heat
rxn to litmus

Physical Properties:
boiling/condensation point
melting/freezing point
malleability
ductility
colour
state
solubility
crystal formation
conductivity
magnetism

8/30/2012

3. Fill in the following chart by filling in the boxes with terms and placing the following labels on the appropriate black lines:

- Cannot be broken down by physical means
- Single type of atom
- Two or more elements combined
- Can be easily separated
- Cannot be easily separated
- Appears to be one substance
- Two distinct parts



4. An *analogy* is a way of explaining one idea that is difficult to understand with another, often very different, idea that is already understood. "Ogres are like onions, they have layers." is an analogy. Make your own analogy for one of the early models of the atom. Include a diagram and a written explanation of your analogy.

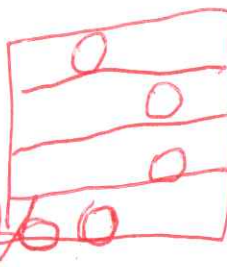
Planetary Model →

sun = nucleus

planets = electrons

Bohr Model

Electrons jumping →



Book
shelf