

Here is a list of topics/concepts covered on October 18's quiz – understand them, be able to explain them, and be able to give examples (and non-examples) of each.

| | | |
|-------------------|--|--------------------------------|
| mixture | substance | solution |
| element | compound | homogeneous |
| heterogeneous | chemical change | physical change |
| nuclear change | physical property | solubility graph |
| first 10 elements | organic | solute |
| inorganic | differences between compounds and mixtures | Lab #4 (thermal decomposition) |
| solvent | chemical property | |

Practice questions:

1) Write out the name of each of the following elements. Spelling counts!

| | | | |
|----|-------|----|-------|
| Be | _____ | C | _____ |
| Li | _____ | N | _____ |
| F | _____ | H | _____ |
| He | _____ | B | _____ |
| O | _____ | Ne | _____ |

2) Write two NEW examples (NOT from the notes) of each of the following:

| | |
|-----------------------|-------|
| element | _____ |
| homogeneous mixture | _____ |
| compound | _____ |
| inorganic matter | _____ |
| heterogeneous mixture | _____ |
| organic matter | _____ |

3) Write the symbol associated with each of the following elements. Spelling counts!

| | | | |
|----------|-------|-----------|-------|
| nitrogen | _____ | fluorine | _____ |
| boron | _____ | lithium | _____ |
| neon | _____ | beryllium | _____ |
| carbon | _____ | oxygen | _____ |
| hydrogen | _____ | helium | _____ |

4) (a) What is a chemical property of sodium chlorate? _____

(b) What are two physical properties of sodium chlorate? _____

5) (a) List two differences between compounds and mixtures: _____

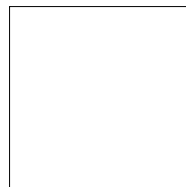
(b) Pick one difference you listed in question 5(a) and give an example to explain it: _____

(c) What do mixtures and compounds have in common? _____

6) Demonstrate and describe below what happens to the atoms during physical, chemical, and nuclear changes.:



physical change ----->



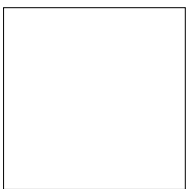
What happened?



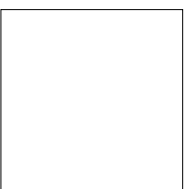
chemical change ----->



What happened?



nuclear change ----->



What happened?

7) Are the following changes physical changes (PC) or chemical changes (CC)?

Salt dissolves in water. _____ A piece of copper is cut in half. _____

Pancakes cook on a griddle. _____ Paper burns. _____

Alka-Seltzer gives off carbon dioxide when added to water. _____

Sodium and potassium react violently with water. _____

8) How was oxygen trapped during Lab #4 without creating a bomb? _____
