Name: _____ Date: _____

NOTES: SUBSTANCES AND MIXTURES

What are the two types of pure substances? _____

What are the simplest substances? _____

Describe ***elements*** _____

_____

Elements are made of what type of particles? _____

How are elements identified? _____

Name the elements with the following number of protons:

12 protons _____ 32 protons _____

18 protons _____ 24 protons _____

65 protons _____ 82 protons _____

90 protons _____ 100 protons _____

How are compounds formed? _____

_____

How are compounds separated? _____

What do covalent compounds consist of? _____

What do ionic compounds consist of? _____

How can you tell the difference between elements and compounds if you are told their names?

_____

Decide if the following substances are elements or compounds:

carbon dioxide _____ oxygen _____

water _____ ammonia _____

cyanide _____ arsenic _____

How are mixtures formed? _____

_____

How are mixtures separated? _____

Define ***heterogeneous mixtures***: _____

Define ***homogeneous mixtures***: _____

What do mixtures NOT have? _____

Does changing the ratio of substances change the identity of the mixture? _____

What is true of substances that are inside of mixtures? _____

_____

Types of Physical Properties:

1. Intensive Properties - _____

2. Extensive Properties - _____

What are the six extensive properties that you need to remember?

_____

_____

What processes can separate mixtures based on the size and shape of one of the components?

_____

Which elements can be made into magnets? _____

What is the name of this set of elements? _____

Describe ***distillation*** _____

What word describes liquids that can be mixed together? _____

In order to be miscible, what must be true of both of the liquids? _____

_____

What can we use to separate immiscible liquids? _____

What is another term for homogeneous mixtures? _____

Describe ***aqueous solutions*** _____

Describe ***alloys*** _____

Describe ***gaseous solutions*** _____

What happens to metals before they are mixed? _____

What word describes a melted substance? _____

Is melting a physical or a chemical change? _____

What are some common alloys? _____