Chem2015 Name_____Per__

Unit 1: Matter Matters Review Sheet

__1. Quantitative Observation	a. Heat taken in
__2. Qualitative Observation	b. Changing of a liquid into a gas, phase change
__3. Physical Property	c. Observation describing the quality of a substance not using numbers.
__4. Physical Change	d.The ability of a substance to be permanently changed
__5. Chemical Property	e. Heat taken out
__6. Chemical Change	f. Describing a substance using your 5 senses, not changing substance
__7. Condensation	g. Changing of a gas into a liquid, a phase change
__8. Evaporation	h. Original substance is lost & new substance is formed (gas, temp change, color change, solid formed)
__9. Endothermic Reaction	i. A substance changing its appearance but substance does not, reversible
__10. Exothermic Reaction	j. Observation describing the quantity of a substance, using numbers

__11. Matter	k. This occurs naturally and is the same composition throughout the substance and everywhere in the world, elements and compounds
__12. Pure Substance	l. A mixture that is different throughout
__13. Mixture	m. Any physical combination of substances
__14. Element	n. A mixture that is uniform throughout, solution
__15. Compound	o. Cannot be broken down, simplest form of matter
__16. Homogeneous Mixture	p. Anything that has mass and takes up space
__17. Heterogeneous Mixture	q. A physical separation of a substance based on its movement through a medium (such as paper).
__18. Chromatography	r. Two or more elements chemically combined

Identify the following as a Quantitative (QN) or Qualitative (QL) observation.

Sydney is tall		The ink travelled five cm		The iron weighs 10 grams		The nuts and bolts have a rough texture		Separation of iron from a mixture by a magnet	
The ice is cold		The pens are red, green, blue, purple, and black		The density is 4.0g/mL		The temperature of the boiling water is one hundred degrees Celsius		The length of the chromatography paper is 8 cm.	

Identify the following as a chemical (C) or physical change (P).

Water condensing on beaker		Water evaporating		Vinegar reacting with Baking Soda		Attaching legos together		Hydrochloric Acid causing magnesium to fizz	
Cutting Grass		Ink dissolving in water		Chromatography paper separating ink		Metal rusting		Sugar and kool-aid dissolving in water	

Identify the following as an element (E), compound (C), or mixture (M).

Sand		Fruit Salad		Air		Hydrochloric Acid (HCl)		Water (H2O)		Magnesium Metal (Mg)	
Ink from a marker		Blueberry muffins		Diamond (C)		Copper Nugget (Cu)		Neon gas (Ne)		Baking Soda (NaHCO3)	

Draw the Matter Concept Map from memory with definitions and then check it with your notes:

Explain in a step by step procedure how you can separate a mixture of Sand, Salt, and Iron Filings.

Explain where and why you would need to separate a mixture in real life. *(research chromatography)*
Must be valid and real. Do NOT guess.

Where:	Why:

Thinking of your favorite meal/dish that you know how to make, identify the following:

Name of meal: _____

*Why is it your favorite?*_____

_____

_____

Provide a list of ALL the materials and ingredients you need:

Element: Aluminum dish to mix egg in	**Compound (Include chemical formula):** ex: Baking Soda (NaHCO3)	**Homogeneous:** ex. Blended Egg	**Heterogeneous:** ex. Green Chile

Provide a list of one physical change and one chemical change you must do to make the meal and explain why you identify it with that type of change (what is the evidence?):

Physical Change: What is the evidence that makes it a physical change?	*Chemical Change:* What is the evidence that makes it a chemical change?