NAME: KEY

### PERI PHYSICAL / CHEMICAL TEST REVIEW

1. <b>D</b> Acidity	A. The ability to be pounded into sheets
2. E Density	B. Solid, Liquid, or Gas
3 I Ductility	C. The decay of an atom's nucleus
<b>5</b> Ductinty	D. pH; measures how acidic or basic a substance is
4. <u>F</u> Flammability	E. Measures mass per unit volume
5. <u>A</u> Malleability	F. Ability to burn/combust
6. <u>G</u> Solubility	G. Ability to dissolve
7 <b>B</b> State	H. Ability to contain/transfer heat and/or electricity
8. <u>H</u> Conductivity	I. Ability to change chemical composition/ engage in a chemical
9. <u>C</u> Radioactivity	reaction I Ability to be stretched into wire
10. <b>1</b> Reactivity	J. Monity to be succeded into wife

<b>B</b> .	VOCABULARY WORD	DEFINITION		
2.	Physical Property	Characteristics of matter that can be seen through direct observation such as density, melting point, and boiling point		
	Physical Change	Change in which the identity of the substance does NOT change		
	Chemical Property	Characteristic of matter that can only be observed when one substance changes into a difference substance, such as iron into rust		
	Chemical Change	Transforms one type of matter into another kind, which may have different properties.		

# C. Fill in the physical and chemical properties in each of the reactions below

	2 HYDROGEN	+ 1 OXYGEN	= WATER (H2O)	
	GAS	GAS	LIQUID	
PHYSICAL	< DENSE THAN AIR	$\approx$ DENSE THAN AIR	> DENSE THAN AIR	
PROPERTIES	COLORLESS	COLORLESS	COLORLESS	
	ODORLESS	ODORLESS	ODORLESS	
	NON-REACTIVE AT	REACTIVE WITH MANY	REACTIVE	
CHEMICAL	NORMAL TEMPERATURES	ELEMENTS		
PROPERTIES	FLAMMABLE	FLAMMABLE	NON-FLAMMABLE	
	NOT RADIOACTIVE	NOT RADIOACTIVE	NOT RADIOACTIVE	

	SODIUM	+ CHLORINE	= SALT (NaCl)	
	SOLID	GAS	SOLID	
PHYSICAL	DENSITY = 0.97 G/mL	<b>DENSITY = ONLY 2 TIMES</b>	DENSITY = 2.17 G/mL	
PROPERTIES		THAT OF AIR		
	SILVER OR GRAY	GREEN	CLEAR	
	ODORLESS	POWERFUL, POISONOUS	ODORLESS	
		ODOR		
	EXPLOSIVELY REACTIVE	<b>REACTIVE WITH MOST</b>	NON-REACTIVE	
CHEMICAL	WITH WATER	ELEMENTS		
PROPERTIES	NON-FLAMMABLE	NON-FLAMMABLE	NON-FLAMMABLE	
	MOST TYPES (ISOTOPES)	NOT RADIOACTIVE	NOT RADIOACTIVE	
	NOT RADIOACTIVE			

## **D. PHYSICAL VS. CHEMICAL PROPERTIES**

1. P	2. P	3. C	4. P	5. C	6. C	7. P	8. P	
9. C	10. C	11. P	12. P	13. C	14. P	15. P		
E. PHYS	E. PHYSICAL VS. CHEMICAL CHANGES							
1. P	2. C	3. P	4. P	5. C	6. C	7. C	8. P	
9. P	10. C	11. P	12. C	13. C	14. C	15. P	16. C	
17. P	18. P	19. P	20. C					

### F. Chemical Reaction – Yes or No?

1. Substance A is added to substance B. The freezing point of B is lowered by 9 degrees C.

The freezing point of B is now lower because A has a lower freezing point (like adding salt to water), and substances A & B have formed a mixture, not a new substance. Therefore, the change is PHYSICAL

2. When substance X and substance Y are mixed together, a magnet can remove particles of substance X.

Substances X & Y have formed a mixture, not a new substance. X is magnetic, and Y is not, so that is why X can be magnetically separated from Y. Still, separating a mixture is a PHYSICAL change.

3. Particles of substance B are suspended in substance T.

A suspension (in which particles of one substance float in another) is a mixture – mixing 2 substances together is a PHYSICAL change.

4. When substance X and substance Z are heated together in test tube, drops of substance B form on the inside of the test tube.

Substance B is a new substance that formed when substances X & z were mixted and heated. The creation of a new substance from 2 substances that react is the definition of a CHEMICAL CHANGE.

5. When substance Q is added to substance R, substance R tastes salty.

# If Q is salt, and R is popcorn, then that would explain the salty taste, yet neither the popcorn nor the salt changes into a new substance - the change is PHYSICAL

6. When solid substance Y is added to liquid substance R, there is a violent explosion. The resulting matter has less mass than the combined masses of Y and R.

The explosion shows that combustion has taken place, which is a chemical process – the change is CHEMICAL.