Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_ Block \_\_\_\_\_\_\_\_

**Unit I**

**Chemical Interactions**

**Review Sheet**

1. **Introduction to Matter – (Notebook pages 1-6)**
* Define:
	+ Matter
	+ Element
	+ Compound
	+ Solution
	+ Solid
	+ Liquid
	+ Gas
* What are the properties of matter?
* What does a chemical change alter?
* What does a physical change alter?
* In this change you cannot get the original substance back:
* In this change you can get the original substance back:
* What are two kinds of pure substances?
* What are two kinds of mixtures?
* Is this an example of a physical (P) or chemical (C) change:
	+ Digesting food
	+ Burning a match
	+ A car rusting
	+ Mixing sugar in ice tea
	+ Tearing a piece of paper
	+ Baking bread
	+ Crushing a can
* Blood is an example of a:
* CO2 is an example of a:
* O2 is an example of a:
* Salt Water is an example of a:
* Na is an example of a:
* **Solid, Liquid or Gas**



1. **Particles of Matter – (Notebook pages 7-13 & 16)**
* Define:
	+ Proton
	+ Neutron
	+ Electron
	+ Atom
	+ Atomic Number
	+ Atomic Mass
* How many electrons can the 1st orbit hold?
* How many electrons can the 2nd orbit hold?
* How many electrons can the 3rd orbit hold?
* Protons are always equal to:
* The nobel gases are located in this group:
* Groups are located where on the periodic table?
* Periods are located where on the periodic table?
* What are the characteristics of metals?
* What are the characteristics of nonmetals?
* Use the periodic table to answer the following questions:



* + What is the atomic number of Argon?
	+ What is the atomic mass of Boron?
	+ What is the element symbol for Hydrogen?
	+ What is the element name for Si?
* Complete the chart

(p+n)

(p=e-)

 **Element Atomic # Atomic Mass p n e-**

 Sulfur 16 \_\_\_\_\_\_\_ \_\_\_\_\_ 16 \_\_\_\_\_

 Phosphorus \_\_\_\_\_ 31 15 \_\_\_\_\_ 15

* Electron Dot Configuration

**Carbon**  p = \_\_\_\_\_ Diagram

 Atomic Number = 6 n = \_\_\_\_\_

 Atomic Mass = 12 e- = \_\_\_\_\_

**Hydrogen** p = \_\_\_\_\_ Diagram

 Atomic Number = 1 n = \_\_\_\_\_

 Atomic Mass = 1 e- = \_\_\_\_\_

###  Acids and Bases – (Notebook pages 17-20)

* Define:
	+ Indicator
	+ Hydrogen Ion
	+ Acid
	+ Hydroxide Ion
	+ Base
* What are the characteristics of acids?
* What are the characteristics of bases?
* What do chemists use to measure the concentration of hydrogen ions in a solution with?
* What color does cabbage turn when in the presence of:
	+ Acids:
	+ Bases:
* What substance has a pH of 7 and is considered neutral?
* Define:
	+ Solute
	+ Solvent
1. Short Answer Essay
* Use each diagram to answer each of the bullets that follow:

1.

* + What **phase change** is being shown?
	+ What **state changes** are taking place?
	+ Is heat being released or absorbed?



2.

* + What **phase change** is being shown?
	+ What **state changes** are taking place?
	+ Is heat being released or absorbed?

3.

* + What **phase change** is being shown?
	+ What **state changes** are taking place?
	+ Is heat being released or absorbed?
* **pH Scale**



* Label the pH scale correctly with **acid, base, neutral**
* What is the approximate pH of:
	+ Lemon juice
	+ Wine
	+ Coffee
	+ Blood
	+ Baking soda
	+ Borax
	+ ammonia