Name:		Date	:	HURBAN
<b>Chemistry</b> ~ Ms. Hart	<u>Class:</u>	Anions or	Cations	SCHOOL FOR CRIMINAL IUSTICE

## **Unit 3 Introduction**

Unit 3 is all about the ATOM. In order to be successful in this and future units, you are going to need to become familiar with elements on the periodic table. Specifically, you will be expected to thoroughly know about the first 20 elements. So first, a couple of definitions (found on page 10 and 11 in your textbook)

Atom\*: the smallest unit of an element that maintains properties of that element.

**Element**\*: pure substance made of only one kind of atom. (Example: oxygen)

<u>**Compound</u>**\*: substance made from the atoms of two or more elements that are chemically bonded (Example: carbon dioxide)</u>

**Periodic Table**: organization of the elements into patterns (see the back of this sheet!)

Symbols are signs that stand for something else. Here are some symbols that you may know: \$ % @ & #. What does each one stand for?

There is a symbol for each of the 106 chemical elements. There are 106 symbols because there are 106 elements. The symbols for the elements are the same all over the world. It makes no difference what country you are in or what language you speak; the chemical symbols are the same.

## I. HOW DO THE ELEMENTS GET THEIR SYMBOLS?

- 1. Often the first letter of the element's name is the symbol for that element.
- 2. The name of the element may begin with a letter that is already the symbol for another element. In that case, it may be the first and second letters that are used or the first letter and another letter in the name may be used to make the symbol.
- 3. The first letter of the symbol is always capitalized. The second letter (if used) is always a lowercase letter.
- 4. A few elements are named after places or famous scientists.

**Your task:** is to memorize the names, symbols and atomic numbers for the first **20** elements on the periodic table. You will have a quiz on sets of ten each week for the next two weeks.

Name	Symbol	Atomic Number	Way to remember
Hydrogen	Н	1	Hi! – H
Helium	Не	2	He – He
Lithium	Li	3	Lies - Li
Beryllium	Ве	4	Because - Be
Boron	В	5	Boys - B
Carbon	С	6	Can - C
Nitrogen	Ν	7	Not - N
Oxygen	0	8	Operate – O
Fluorine	F	9	Fireplaces - F
Neon	Ne	10	New – Ne
Sodium	Na	11	Nation – Na
Magnesium	Mg	12	Might – Mg
Aluminum	Al	13	Also – Al
Silicon	Si	14	Sign – Si
Phosphorus	Р	15	Peace – P
Sulfur	S	16	Security – S
Chlorine	Cl	17	Clause - Cl
Argon	Ar	18	A – Ar
Potassium	K	19	King – K
Calcium	Ca	20	Can - Ca

ADD periodic table from reference sheets to the back!