

Name:

Date:

Pd:

# ATOMIC BASICS PRACTICE

## Parts of the Atom:

SUBATOMIC PARTICLE	ELECTRIC CHARGE	LOCATION IN ATOM

## Complete the table for the elements:

ELEMENT NAME	ATOMIC NUMBER	AVERAGE ATOMIC MASS	PROTONS	ELECTRONS
Hydrogen				
Boron				
Nitrogen				
Oxygen				
Neon				

## For each of the following ions, indicate the total number of protons and electrons in the ion:

Ion	Number of Protons	Number of Electrons
$\text{Cl}^{-1}$		
$\text{K}^{+1}$		
$\text{S}^{-2}$		
$\text{Sr}^{+2}$		
$\text{Al}^{+3}$		
$\text{P}^{-3}$		

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Here are three isotopes of an element:



- The element is: \_\_\_\_\_
- The number 6 refers to the \_\_\_\_\_
- The numbers 12, 13, and 14 refer to the \_\_\_\_\_
- How many protons and neutrons are in the first isotope? \_\_\_\_\_
- How many protons and neutrons are in the second isotope? \_\_\_\_\_
- How many protons and neutrons are in the third isotope? \_\_\_\_\_

**Complete the following chart:**

Isotope name	atomic #	mass #	# of protons	# of neutrons	# of electrons	Isotopic Symbol
Uranium-235						
Uranium-238						
Boron-10						
Boron-11						

**Fill in the following chart:**

Element/Ion	Atomic Number	Number of Protons	Number of Neutrons	Number of Electrons	Mass Number
${}^1_1\text{H}$					
${}^1_1\text{H}^+$					
${}^7_3\text{Li}$					
${}^{35}_{17}\text{Cl}^-$					
${}^{24}_{12}\text{Mg}^{2+}$					
${}^{75}_{33}\text{As}$					
${}^{108}_{47}\text{Ag}^+$					
${}^{32}_{16}\text{S}^{2-}$					
		30		28	66
	76		114		

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Complete the following diagram:

**Atomic Changes**

What happens to an atom if we lose or gain protons, neutrons, or electrons? Use the words in the word bank to complete this worksheet.

Anion (-)  
Boron  
Carbon-11  
Carbon-13

Cation (+)  
Ions  
Isotopes  
Nitrogen

