

Name: _____

Section: _____

**Chapter 2 Worksheet:
Atoms, Molecules, and Ions**

1. What are the vertical columns in the periodic table called? _____

2. What are the horizontal rows in the periodic table called? _____

3. Name the following groups and list three elements (with symbols) in each one:

	Group Name	Elements and symbols
Group 1A	_____	_____
Group 2A	_____	_____
Group 7A	_____	_____
Group 8A	_____	_____

4. Briefly define the following:

a. Law of Conservation of Mass

b. Law of Definite Proportions

c. Dalton's Atomic Theory

d. Law of Multiple Proportions

5. Describe the contribution made by the following scientists:

a. Priestley

b. Lavoisier

c. Thomson

d. Millikan

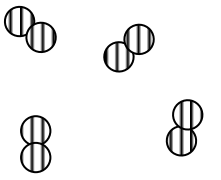
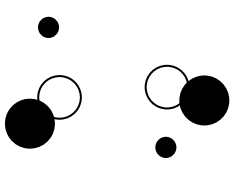
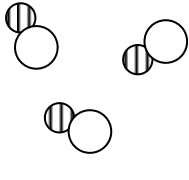
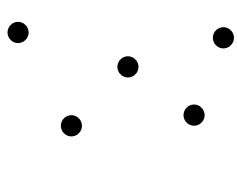
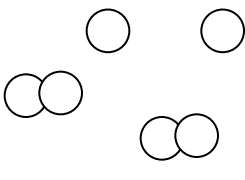
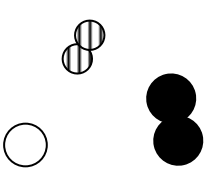
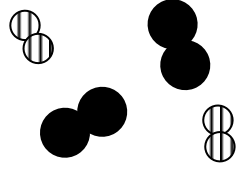
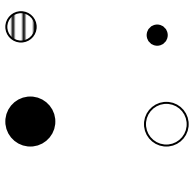
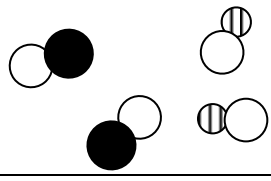
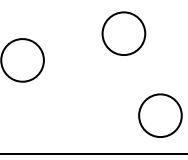
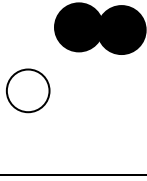
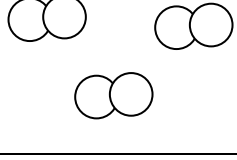
e. Rutherford

6. Fill in the table below:

Symbol	Atomic Number	Mass Number	Number of Neutrons
${}^1_1\text{H}$			
	8	17	
	80		119
${}^{63}\text{Cu}$			
	35		36

7. How many gold-197 atoms are in a 0.156 gram sample? (Watch sig figs in your answer!)

8. Classify the following as a mixture or pure substance, and atom, molecule, or compound.

a 	b 	c 	d 
e 	f 	g 	h 
i 	j 	k 	l 

Name: _____

Section: _____

9. Describe the difference between ionic and covalent compounds.

10. Circle the substances that are ionic in the list below:

CH₄

LiCl

C₂H₄

NaNO₃

CoCl₂

CO₂

KBr