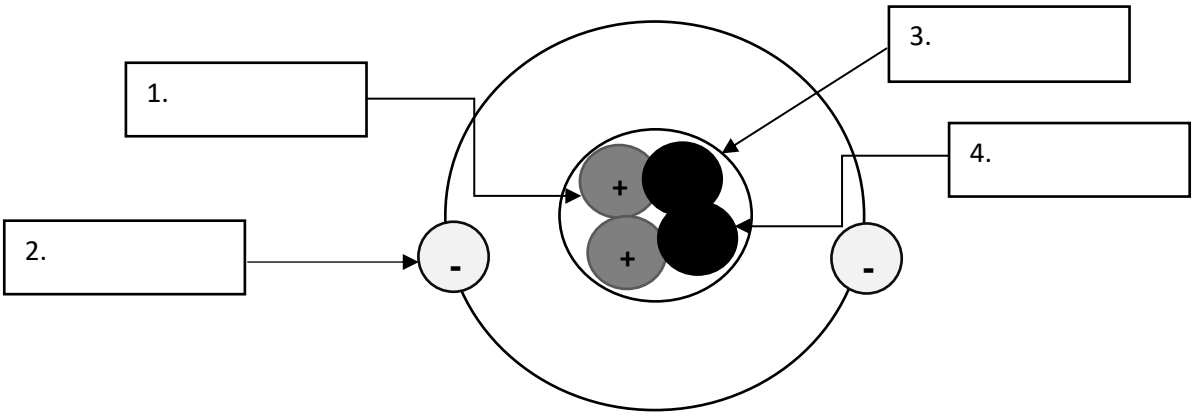
LEARNING ACTIVITY SHEET
Grade 8 – SCIENCE

_____

Name:_____Date:_____ Rating/Score_____

The Subatomic Particles of an Atom

I. About the Atom
Activity A: Atomic Structure
Directions: Identify and label the parts of an atom.



Activity B: Atomic Properties

Directions: Write the symbol, relative charge, and location of the subatomic particles in the table. Base your answers from Activity A.

Subatomic Particles	Symbol	Relative Charge	Location
protons			
electrons			
neutrons			

Guide Questions:

1. The model above is based on whose model of the atom?

2. How many protons, electrons, and neutrons are there in the atom?

3. What element is represented in the atomic structure? How did you say so?

4. What are the functions/roles of the subatomic particles in an atom?

_____

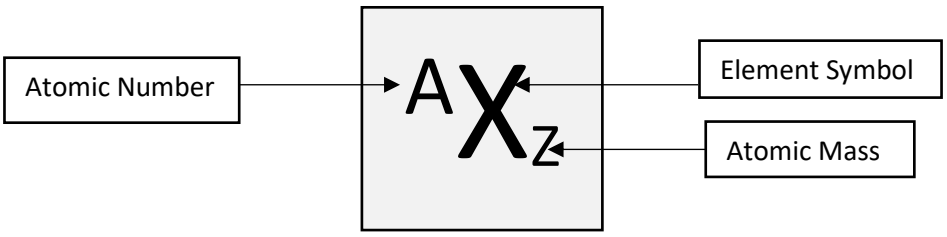
Specific Week: 5-6 (LAS 3)
Target Competency: Determine the number of protons, electrons, and neutrons in a particular atom. (S8MT-IIIe-f-10)

LEARNING ACTIVITY SHEET
Grade 8 – SCIENCE

II: Reading the Periodic Table

Activity A: Neutral Atom

Directions: Identify the atomic number, atomic mass, and name of each element using the given periodic symbol. Then, determine the number of protons, number of electrons, and number of neutrons in an atom.



Periodic Symbol	Name of Element	Atomic Number (A)	Atomic Mass (Z)	Number of Protons p^+	Number of Electrons e^-	Number of Neutrons n
$^{30}Zn_{65}$		30				35
$^{18}Ar_{40}$			40		18	
$^{53}I_{127}$	iodine			53		

Guide Questions:

1. What is the relationship between the proton number and the atomic number of an atom?

2. How can you determine the number of protons in a neutral atom? Electrons? Neutrons?

3. Based from the activity above, how can you determine the relative atomic mass (Z) of the atom?

Specific Week: 5-6 (LAS 3)
Target Competency: Determine the number of protons, electrons, and neutrons in a particular atom. (S8MT-IIIe-f-10)

LEARNING ACTIVITY SHEET
Grade 8 – SCIENCE

Activity B. Charged Due to my Particles

Directions: Complete the table by filling in the missing components from the given ions. (Refer to the Periodic table in your Learner's Module pages 218-219).

Ions	Atomic Number	Atomic Mass	Number of p^+	Number of e^-	Number of n	Charge
Na^+			11	10		+1
		9		2	5	
Cl^-	17			18		-1

Guide Question:

1. Based from the activity above, how will you differentiate an atom from an ion?

2. Which of the examples above represents cations? Anions?

PART III: Word Play with Symbols

Directions: Refer to a periodic table. Write the symbols of the elements with the given descriptions to guess the hidden word, which is one of the essential virtues that we must practice. Add or subtract the symbols and write the remaining letters in the space provided.

1. the only element with no neutron
2. the element with 8 electrons
3. a noble gas with an atomic number of 10
4. the element with 16 protons
5. the element with an atomic mass of 98 minus the symbol of the element with an atomic number of 6
6. the element with 39 protons and 50 neutrons

___ ___ ___ ___ ___ ___

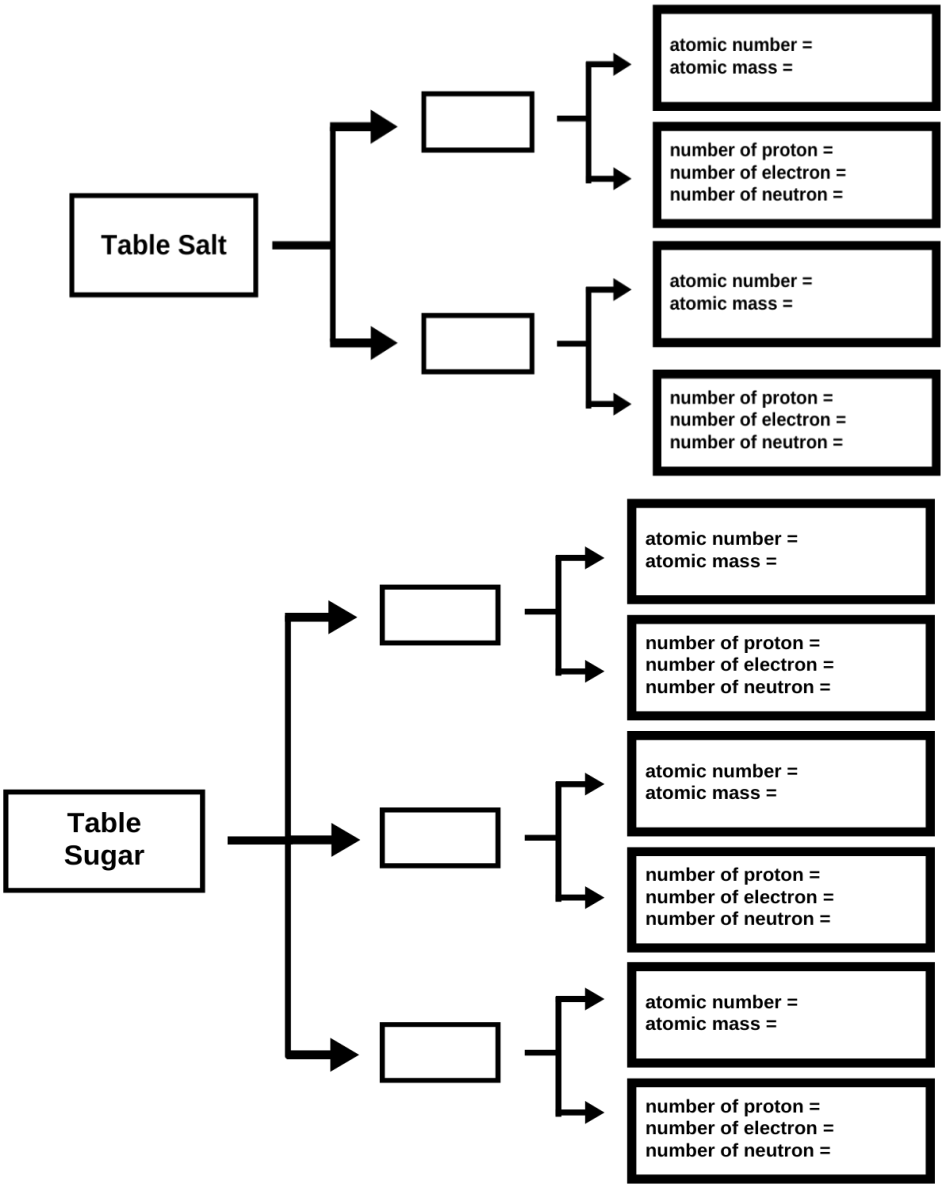
1 2 3 4 5 6

Specific Week: 5-6 (LAS 3)
Target Competency: Determine the number of protons, electrons, and neutrons in a particular atom. (S8MT-IIIe-f-10)

LEARNING ACTIVITY SHEET
Grade 8 – SCIENCE

PART IV: Atomic Products

Directions: Identify the elements in the following household products. Then, determine its atomic number, atomic mass, number of protons, number of electrons, and number of neutrons.



Thoughts to Ponder:

1. Are salt and sugar good for our health? Why?

2. What lessons have I learned from this activity that I can use in the future?

Specific Week: 5-6 (LAS 3)
Target Competency: Determine the number of protons, electrons, and neutrons in a particular atom. (S8MT-IIIe-f-10)