

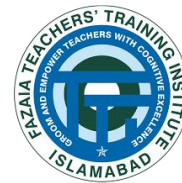


FAZAIA SCHOOLS AND COLLEGES

G. Science - Class VII

Worksheet

Chapter 4 – Structure of an Atom (Page 61 – 70)



NAME: _____ CLASS: _____

Task 1

		1 H							2 He
I 3 Li	II 4 Be					VI 7 N		VII 9 F	
			5	6		8 O		10 Ne	
11 Na	12 Mg		13 Al	14	15	16 S	17 Cl	18 Ar	
19 K	20 Ca	⚡ ⚡ ⚡							

1. Answer the questions below from the given periodic table chart:

i. Which group represents alkali metals?

ii. Which group contains only one electron in the outer-most shell?

iii. Which group contains seven electrons in the outer-most shell?

iv. Name two halogens from the table.

v. Name two noble gases and write their uses.

vi. Why is hydrogen placed separately in the periodic table?

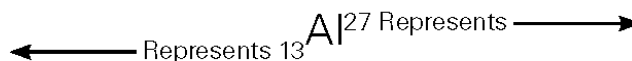


Task 2

1. Use the words below to complete the following sentences.

atom molecule negatively different
ions same positively

- Elements are made up of _____ kind of atoms.
 - When an atom loses electrons, it becomes _____ charged.
 - Water is a _____ made up of _____ kinds of atoms.
 - The smallest particle of an element is called an _____.
 - When an atom gains an electron, it becomes _____ charged.
 - Charged particles are called _____.
2. Aluminum is represented by



i. What do 13 and 27 represent?

ii. The number of particles in aluminum are

number of protons _____

number of electrons _____

number of neutrons _____

iii. How are the electrons distributed in the different shells?

iv. Draw a dot and cross diagram to show the structure of a sodium and chloride ion.

v. Write symbols of following elements along with their atomic number and mass number.

oxygen nitrogen iron magnesium

calcium carbon hydrogen

Elements	Atomic number	Mass number



Task 3

Sometimes, the name of a compound tells you which elements and even how many there are in one molecule. An example would be carbon dioxide which is CO_2 , one carbon and two oxygen. This is not always the case, such as in water. CO_2 is called the molecular formula of carbon dioxide.

- a. What is the molecular formula of water?

Some compounds are made of more than two elements. The molecular formula of baking soda is NaHCO_3 .

- b. List all elements found in baking soda. Give their chemical symbol followed by their name.

symbol	name

- c. Only one element has more than one atom in a molecule of baking soda. Which element is this and how many atoms are there?

-
- d. Sodium sulphate has the molecular formula Na_2SO_4 .

For each element in this compound, write the chemical symbol, the name, and the number of atoms involved.

symbol	name	how many atoms