



STEPPING STONE
SCHOOL (HIGH)
CLASS : VIII

Subject: CHEMISTRY

Date: 30/06/2020

Topic: ATOMIC STRUCTURE

Time Limit: 40 MINUTES

Worksheet No. :13

GOOD DAY, CHILDREN,

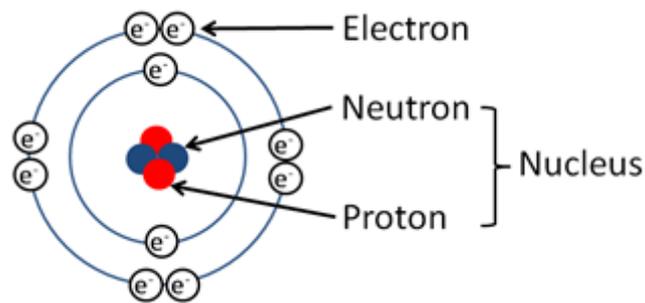
Hope you are staying safe --- coming to studies in the last worksheet we have discussed about the chapter elements, compounds and mixture. To day we are going to start with the fourth chapter of your book named ATOMIC STRUCTURE.

Before starting the chapter, I need to give you some guidelines.

- Please read the chapter from your text book to work out the exercises neatly in your notebooks henceforth.
- Ensure neat and tidy work.
- Do not write above the redline of the notebook pages.
- Use notebook with 68 pages and write with blue ink. Make a contents page first as shown below and then continue.

CONTENTS				
DATE	WORKSHEET NO.	CHAPTER NO. AND NAME	PAGE NOS.	TEACHER'S SIGNATURE

STRUCTURE OF ATOM



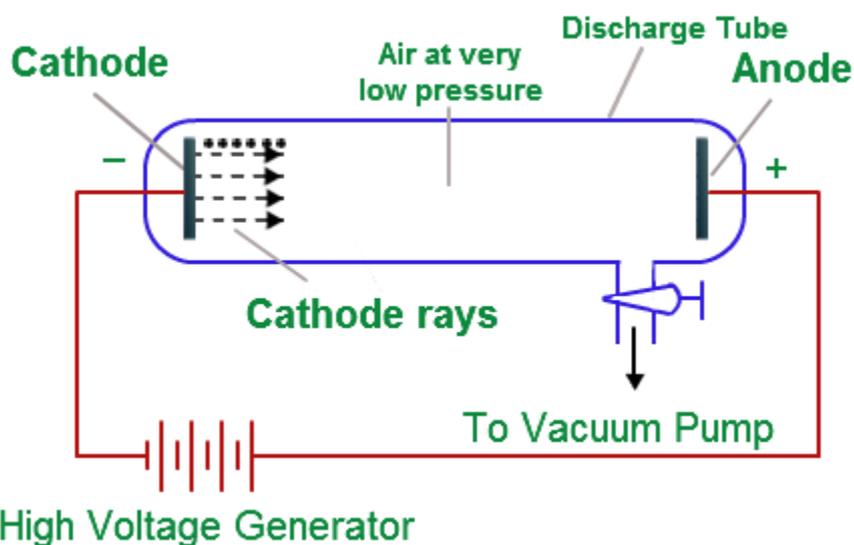
Atoms are the smallest particle of matter. The many subatomic particles called Electrons, Protons, Neutrons.

DALTON'S ATOMIC THEORY: -

- All matter consists of tiny particles called atoms.
- Atoms are indivisible or indestructible. They can neither be created nor destroyed.
- In chemical reactions, atoms are rearranged, combined or separated.
- All atoms of particular element are identical in mass and other properties.
- The atoms of one element are different from the atoms of all other elements.

SUBATOMIC PARTICLES: -

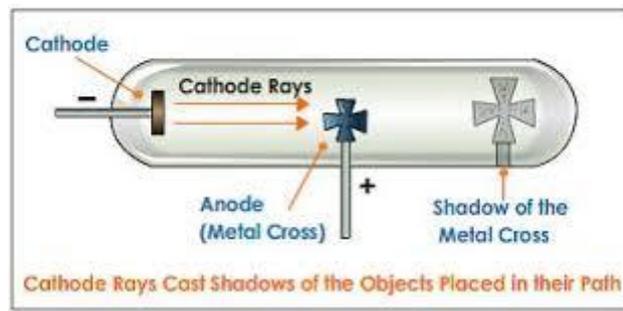
1. Discovery of electrons.



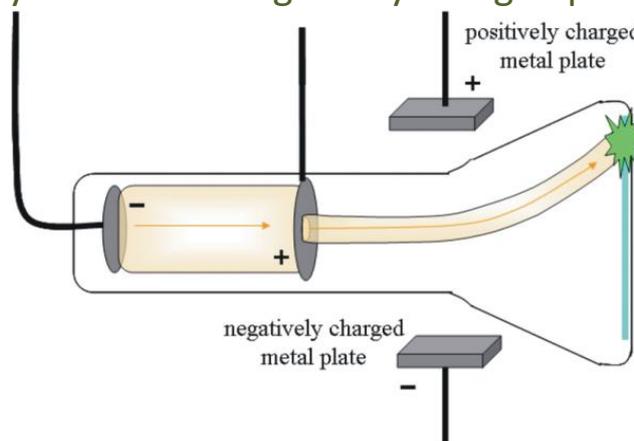
The discharge tube is a cylindrical glass tube with sealed electrodes at each end, a high voltage of 10000 volts is applied through the gas, the gas is stored at a very low pressure of 0.01-0.001 mm of Hg. The electrode connected to the negative terminal termed as cathode and that connected to the positive terminal is called anode.

Characteristics of cathode rays :

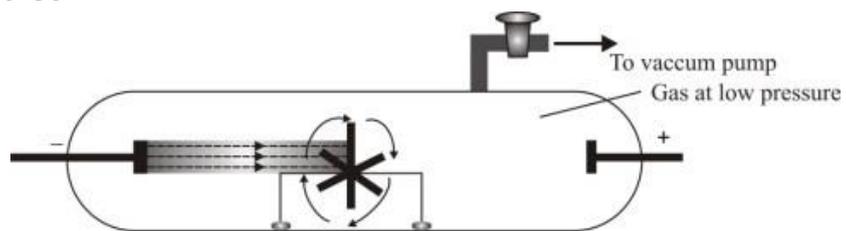
- cathode rays travel in a straight line.



- cathode rays consist of negatively charged particles.



- cathode rays are a stream of fast-moving charged particles.



Rotation of light paddle wheel by cathode rays

PROPERTIES OF ELECTRONS:

- Electron is a negatively charged particle (with charge 1.6×10^{-19}).
- Electron is an integral part of an atom.
- The charge to mass ratio was found to be 1.78×10^8 C/g.
- The mass of an electron was found to be $1/1837$ of a hydrogen atom.
- The charge on an electron is 1-unit negative charge.

For better understanding go through the link attached herewith.

https://drive.google.com/file/d/1P1mo8QFtR_ZRcGrssLJCMIEU8cGm9okB/view?usp=drivesdk

<https://drive.google.com/file/d/1OzeH2Zw--QnlushzMT7r4Y1-Rlw4z-ks/view?usp=drivesdk>

After going through the notes and link write answers for the following questions.

- 1. Define atom.**
- 2. State four postulates of Dalton's Atomic Theory.**
- 3. Draw the structure of atom and label it.**
- 4. Write three characteristics of cathode ray with diagram.**
- 5. Give three properties of electrons.**
