

# **Class 9 Atomic Structure Worksheet**

List the three main subatomic particles of an atom. Describe the charge and location of each particle within the atom.

Calculate the number of neutrons in carbon-14

Identify the element given the following information:

- Number of protons = 17
- Number of neutrons = 18
- Number of electrons = 17

# Class 9 Atomic Structure

## Worksheet

List the three main subatomic particles of an atom. Describe the charge and location of each particle within the atom.

- **Protons: Positively charged particles located in the nucleus.**
- **Neutrons: Neutral (no charge) particles, also located in the nucleus.**
- **Electrons: Negatively charged particles that orbit the nucleus in electron clouds or shells.**

Calculate the number of neutrons in carbon-14

- **Atomic number of carbon (number of protons) = 6**
- **Mass number of carbon-14 = 14**
- **Number of neutrons = Mass number - Atomic number  
= 14 - 6 = 8 neutrons**

Identify the element given the following information:

- Number of protons = 17
- Number of neutrons = 18
- Number of electrons = 17
- **The element with 17 protons is Chlorine (Cl). The atomic number, which is equal to the number of protons, identifies the element. Since it has an equal number of protons and electrons, it is neutral in charge.**