Electron Shell Diagrams Worksheet

For each element draw the **electron shell diagram**. Write the **electron configuration** underneath each diagram.

Sodium (Na)

Aluminum (Al)

Carbon (C)

Silicon (Si)

Oxygen (O)

Chlorine (Cl)

Flourine (F)

Phosphorus (P)

Lithium (Li)

The Structure of Atoms

Complete the table below to summarise subatomic particles.

|  |  |  |  |
| --- | --- | --- | --- |
| **Subatomic Particle** | **Charge** | **Location in the Atom** | **Mass of the Particle** |
| Proton |  |  |  |
| Neutron |  |  |  |
| Electron |  |  |  |

1. What two sub-atomic particles are located in the nucleus of the atom?
2. What is the difference between the atomic number & the atomic mass of an element?
3. How do you calculate the mass of an atom? Why is one part of the atom not included?

Complete the table; the first two rows have been done for you.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Element** | **Protons** | **Neutrons** | **Electrons** | **Atomic Symbol** | **Electron Configuration** | **Electron Shell Diagram** |
| Lithium-7 |  |  |  |  |  |  |
| Carbon-12 |  |  |  |  |  |  |
| Aluminium-27 |  |  |  |  |  |  |
| Sodium-23 |  |  |  |  |  |  |
| Nitrogen-14 |  |  |  |  |  |  |
| Beryllium-9 |  |  |  |  |  |  |