Electron Configuration: The arrangement or distribution of electrons across orbitals or energy levels around the nucleus is known as electron configuration.

The electron shells are labeled K, L, M, N, O, P and Q. The four different types of orbitals (s, p, d, and f) have different shapes, and one orbital can hold a maximum of two electrons. The p, d, and f orbitals have different sublevels, thus can hold more electrons.

* 1st shell has only s sublevel with just 2 electrons.
* 2nd shell has s and p sublevels with 2 + 6 = 8 electrons.
* 3rd shell has s, p, and d sublevels with 2 + 6 + 10 = 18 electrons.

The pattern is thus: 2, 8, 18, 32 ... or 2n².