

Section 5.1: Models of the Atom

- How many sublevels are in the following principal energy levels? Which sublevels?
 - n = 1 **One - s**
 - n = 2 **Two - s, p**
 - n = 3 **Three - s, p, d**
 - n = 4 **Four - s, p, d, f**
 - n = 5 **Four - s, p, d, f**
 - n = 6 **Three - s, p, d**
 - n = 7 **Two - s, p**
- How many orbitals are in the following sublevels?
 - 1s sublevel **One**
 - 2p sublevel **Three**
 - 3d sublevel **Five**
 - 4f sublevel **Seven**
 - 5s sublevel **One**
 - 6p sublevel **Three**
- How many electrons can each of the following sublevels hold (maximum)?
 - s **Two**
 - p **Six**
 - d **Ten**
 - f **Fourteen**
- What is the shape of an s sublevel orbital? **Sphere**
- What is the shape of a p sublevel orbital? **Dumbbell**
- What was the problem with Rutherford's planetary model of the atom? **It could not explain chemical properties**
- Bohr proposed that electrons were found in specific circular paths called **orbits**
- What happens to the distance between energy levels as you increase in energy? **It decreases.**
- What does "electron cloud" mean? **A region of space with the highest probability, or likelihood, of finding an electron. Not an exact path.**
- How do electrons move from energy level to energy level? **Gain or lose energy**

Section 5.2: Electron Arrangement in Atoms

- Electrons arrange themselves around the nucleus in order to make the most **stable** arrangement.
- What are the three rules for writing electron configurations? Give the definition of each.
 - Aufbau's Principle - electrons occupy the lowest energy levels first**
 - Pauli Exclusion Principle - electrons in the same orbital have opposite spin**
 - Hund's Rule - electrons enter orbitals individually before pairing up**

Click here to access this Book :

FREE DOWNLOAD

Chemistry Chapter 5 Electrons In Atoms Assessment Answers

[Chemistry Chapter 5 Electrons In](#)

If you were to habit such a