## Notes for Electron Arrangement

- Electron orbit the nucleus in energy levels
- $1^{\text {st }}$ energy level (closest to nucleus can hold 2 electrons)
- $2^{\text {nd }}$ energy level $-\mathbf{8}$ electrons and $3^{\text {rd }}$ energy level-18 electrons
- The rows on the periodic table correspond to the number of energy levels (called periods).
- H and $\mathrm{He}-\mathbf{1}^{\text {st }}$ row $\mathbf{-} \mathbf{1}$ energy level; $\mathrm{Li} \rightarrow \mathbf{N e} \mathbf{2}^{\text {nd }}$ row $\& 2$ energy levels
- Valence electrons are electrons in the outermost energy level
- These determine how elements behave in a chemical reaction
- Elements with same number of valence electrons have similar properties and will behave the same way during chemical reactions
- The columns on the periodic table correspond to the number of valence electrons (called groups)

