Kinetic Molecular Theory

1. Gas molecules are much smaller than the distances between them. Thus, we can consider the volume of the gas molecules themselves to be negligible.

2. Gas molecules are in constant, random motion. The collisions that occur between gas molecules and their container walls gives rise to gas pressure.

3. Gas molecules neither attract nor repel each other because the IMFs between them are negligible. Thus, they are “non-interacting” and all of their collisions are elastic (no energy is lost).

4. The average kinetic energy of a collection of gas molecules is directly proportional to the absolute temperature (Kelvin) of the gas.