

# Principal Assumptions of the Kinetic Molecular Theory

1. Gases consist of tiny (submicroscopic) molecules.
2. The distance between molecules is large compared with the size of the molecules themselves. The volume occupied by a gas consists mostly of empty space.
3. Gas molecules have no attraction for one another.
4. Gas molecules move in straight lines in all directions, colliding frequently with one another and with the walls of the container.
5. No energy is lost by the collision of a gas molecule with another gas molecule or with the walls of the container. All collisions are perfectly elastic.
6. The average kinetic energy for molecules is the same for all gases at the same temperature, and its value is directly proportional to the Kelvin temperature.