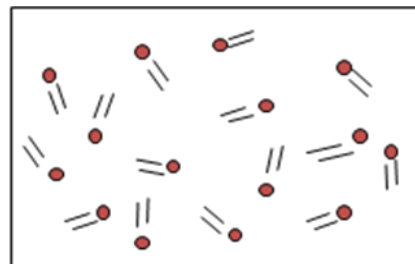


N5

## Kinetic Theory of Gases

The kinetic theory of gases is used to explain the behaviour of gases using a model. The model considers a gas to be composed of a large number of very small particles that are widely spaced. The particles are moving at random in all directions with a range of speeds. No energy is lost when the particles collide with the walls of the container and each other.



### Volume

The volume of a gas is taken as the volume of the container. The volume occupied by the gas particles themselves is considered so small as to be negligible.

### Temperature

The temperature of a gas depends on the kinetic energy of the gas particles. The faster the particles move, the greater their kinetic energy and the higher the temperature.

### Pressure

The pressure of a gas is caused by the particles colliding with the walls of the container. The more frequent these collisions or the more violent these collisions, the greater will be the pressure.