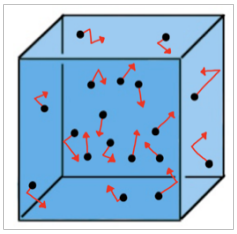
**CONCEPT:** PRESSURE UNITS

- The SI Unit for **Pressure** is the _____ (Pa) named after the French mathematician Blaise Pascal.

## Pressure

**Application**

Gases are a collection of molecules that move in random directions in straight lines.



**Pressure Formula**

**Pressure** is the force that a gas exerts on the wall of its container.

Pressure = _____

☐ **F** = _____ in SI Unit of Newton (N).

☐ **A** = _____ in SI Unit of $m^2$.

**EXAMPLE:** What happens to the pressure if the same amount of gas molecules is transferred from a 5.0 L container to a 10.0 L container?

a) It will increase b) It will decrease c) No change will be observed d) Not enough information

**Pressure Unit Conversions**

- Additional non SI units for pressure used by most chemists are _____, _____, or _____ .
  - ☐ These units for pressure have their own pressure value, which can be related to one another.

## Pressure Units

| Unit Name | Pressure Value | Unit Name | Pressure Value |
|---|---|---|---|
| Atmosphere (atm) | _____ | Pascal (Pa) | _____ |
| Millimeters of Mercury (mmHg) | _____ | Kilopascal (kPa) | _____ |
| Torr | _____ | Bar | _____ |
| | | Pounds per square inch (Psi) | _____ |

**EXAMPLE:** The pressure in Denver, Colorado (elevation 5280 ft), averages about 24.9 inHg. Convert this pressure into mmHg and atm.