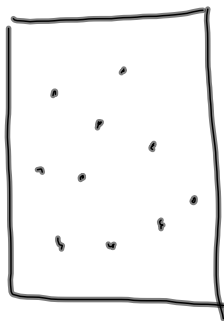## Kinetic Model of Gas

Statistical models are used to analyze the motion of a gas

- a gas consists of a <u>large number</u> of particles moving <u>randomly</u> & <u>colliding</u> with each other + the walls of the container.

- In each collision, the particles obey Newton's laws of motion

- Statistical techniques are used to predict the macroscopic behaviour of a gas by applying Newton's Laws to a very large number of particles.

- the statistical techniques work well for "simple" particles, however, in practicality, the particles are not that "simple".

particles each have their own volume.
+ there are cohesive forces between the particles (affects their motion during collisions with each other + the walls of the container)

this makes the statistical techniques more complicated

we want to keep things simple.

use an ideal gas rather than a real gas for statistical technique