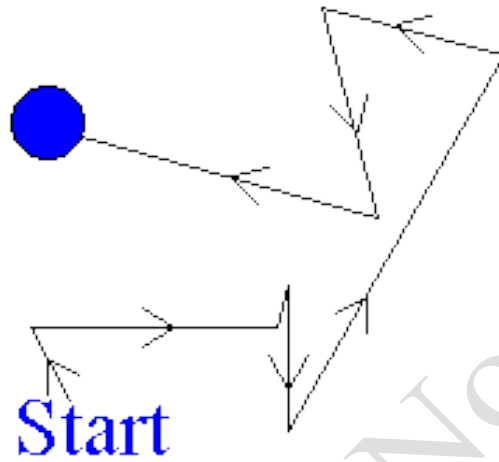
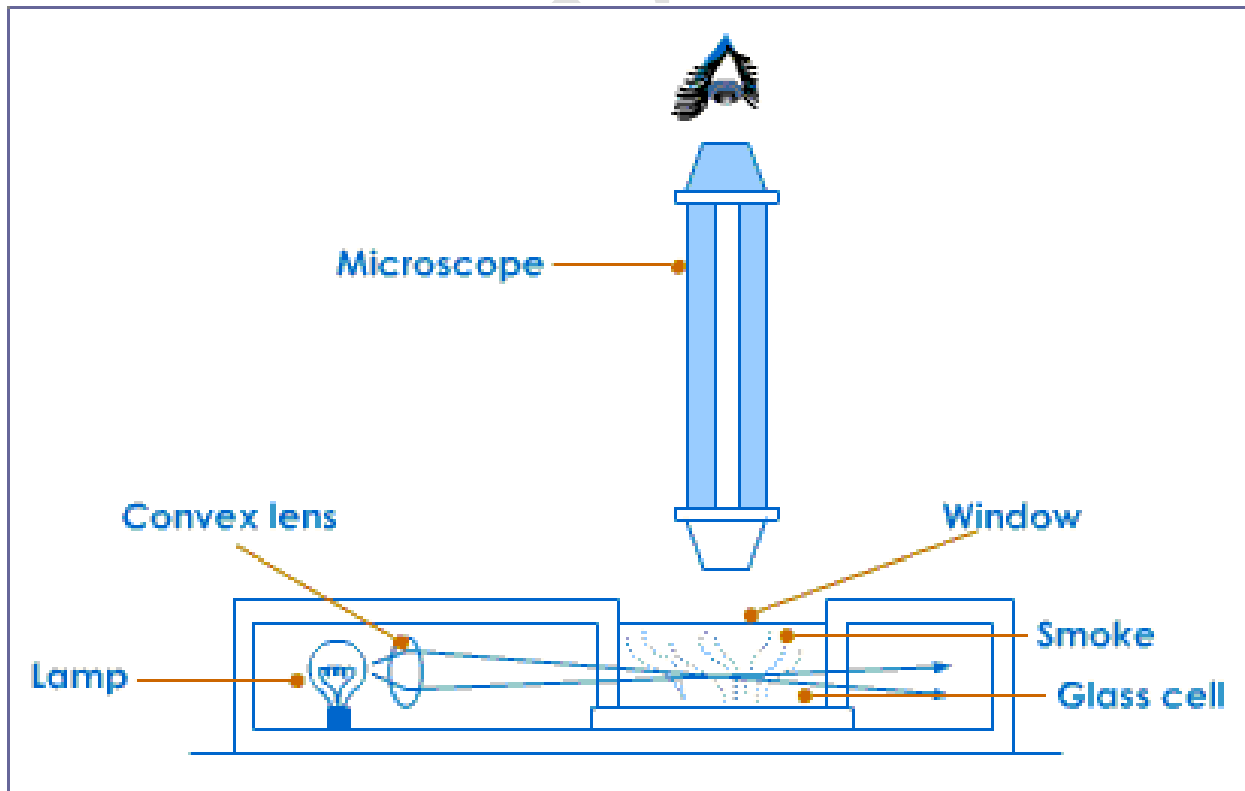


**PHYSICS**  
**FORM 5**  
**BROWNIAN MOTION**

This is the random, haphazard, straight line motion or movement of tiny particles (atoms and molecules).



**Experiment to Demonstrate Brownian Motion**



**PHYSICS**  
**FORM 5**  
**BROWNIAN MOTION**

The experiment is set up as shown above. A mixture of air and a few smoke particles are placed in a sealed glass box. The experiment is conducted in a darkened room. A parabolic light is shone through the glass box. The movement of the smoke particles is then observed using a microscope.

Points to Note:

1. A parabolic lamp creates a beam of light that reflects of the smoke particles making the smoke particles visible.
2. The experiment is conducted in a darkened room so that the smoke particles may be easily seen.
3. The microscope is used so that the smoke particles could be more visible.
4. A few smoke particles are used so that individual particles are readily seen.

Discussion:

The smoke particles are seen to move in a random haphazard straight line motion, that is, Brownian Motion. Movement of the smoke particles is brought about by the air molecules bombarding the smoke particles. If the smoke particles move by Brownian Motion then this must mean that the air particles also move by Brownian Motion.