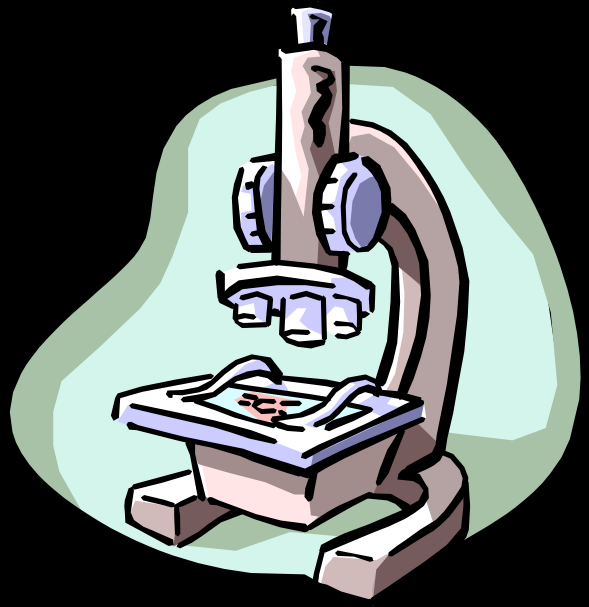
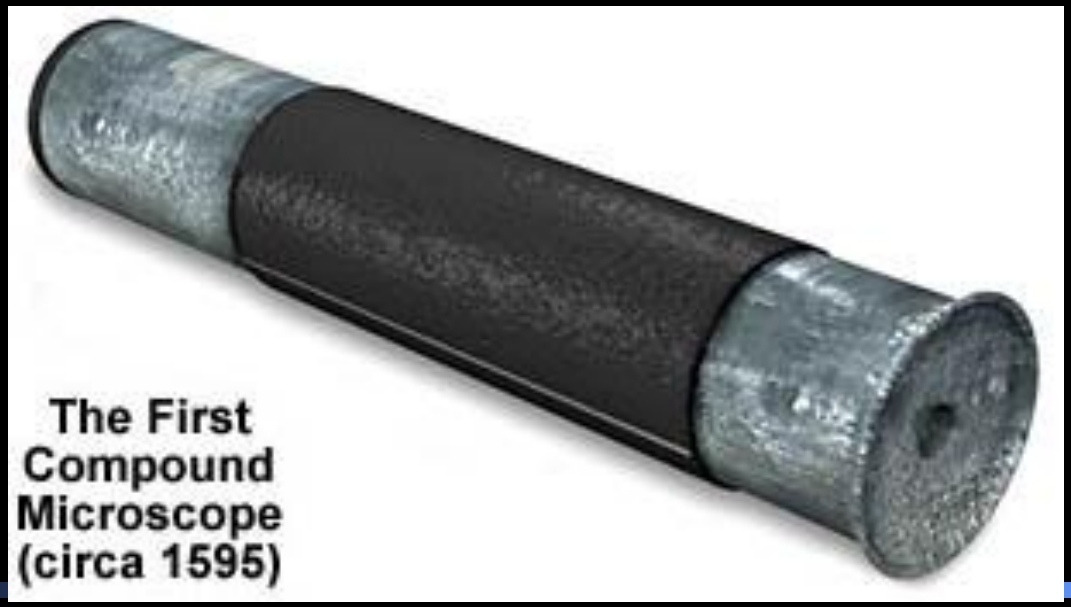
Microscopes



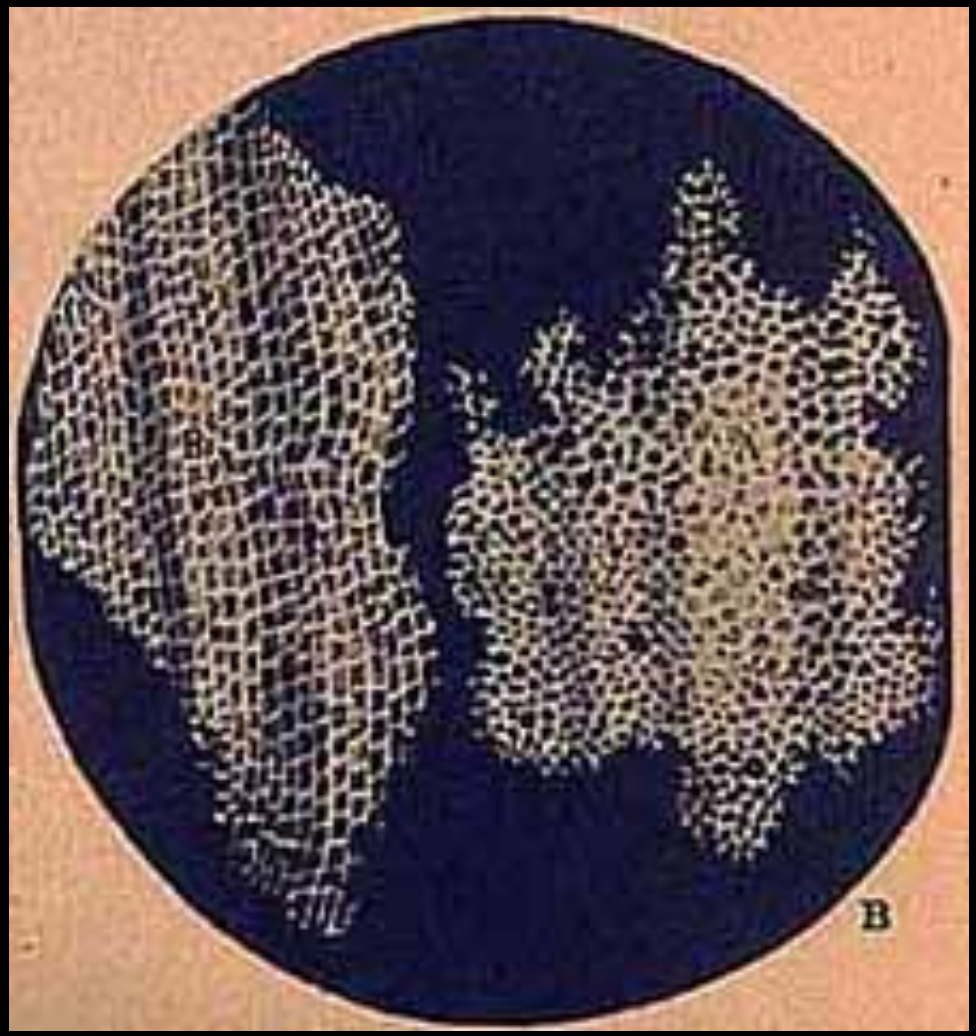
Dr.Aseel basim

History of the Microscope

- 1590 –first compound microscope



- 1655 – Robert Hooke used a compound microscope to observe holes in cover He called them "cells"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- Antoine van Leeuwenhoek
  - 1st to see single-celled plants in pond water

- Magnification: increase of an object's apparent size
- Resolution: power to show details clearly
- Both are needed to see a clear image

Types of Microscopes

1. Compound Light Microscope
   - 1st type of microscope, most widely used
   - light passes through 2 lenses
   - Can magnify up to 2000x

Ocular lens

Objective lenses

Types of Microscopes

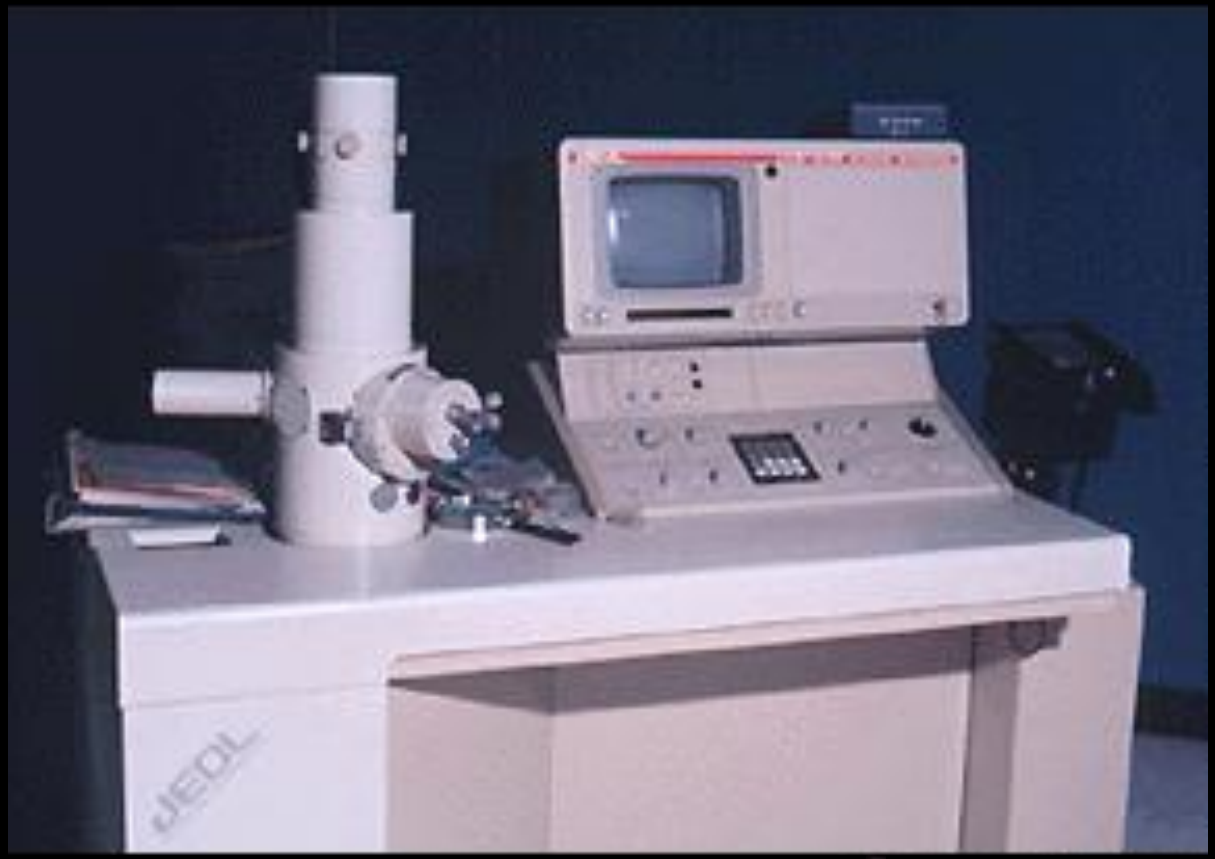
- 2. Electron Microscope
  - –Used to observe VERY small objects: viruses, DNA, parts of cells
  - –Uses beams of electrons rather than light
  - –Much more powerful

Types of Microscopes

- Transmission Electron Microscope (TEM)
  - Can magnify up to 250,000x

Types of Microscopes

- Scanning Electron Microscope (SEM)
  - Can magnify up to 100,000x



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