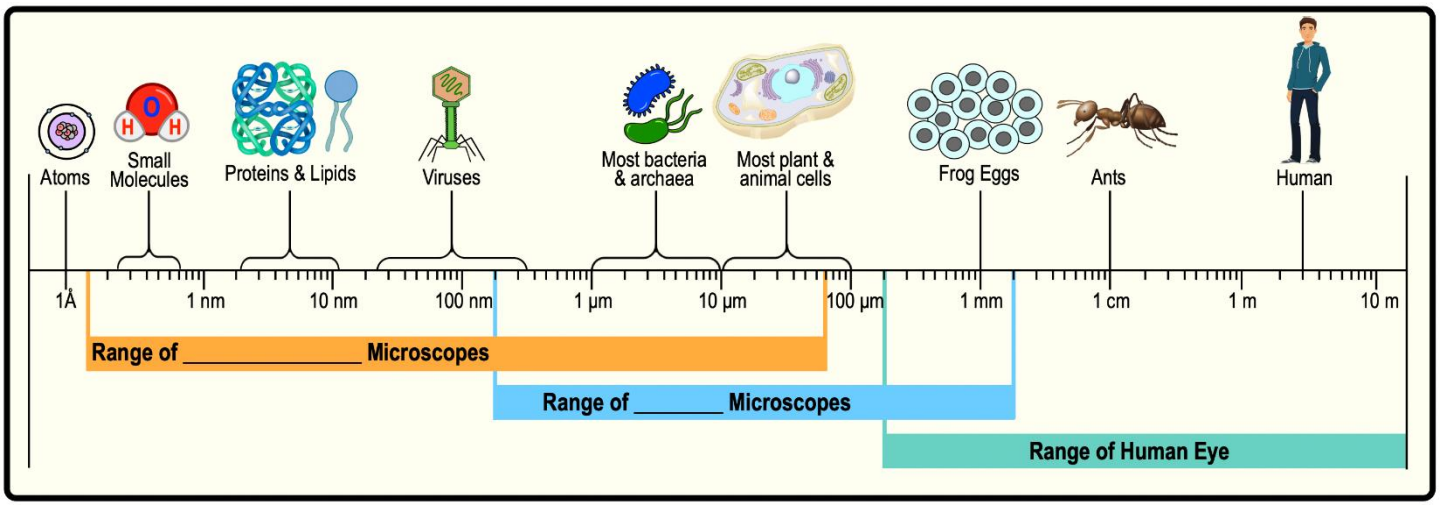
CONCEPT: INTRODUCTION TO MICROSCOPES

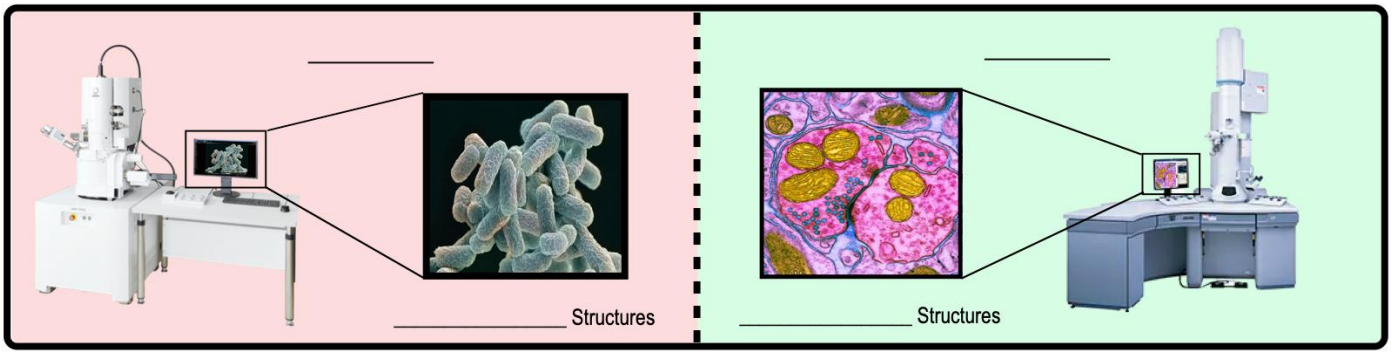
- Microbes are simply too _____ for our eyes to see & require the aid of _____ to visualize them.
  - □ **Microscope:** an optical _____ used to visualize _____scopically *small* objects (ex. *cells*).
  - □ _____ main types of *microscopes* are commonly used:
    1) **Light Microscopes**: uses visible _____ to magnify small objects.
    2) **Electron Microscopes**: uses _____ for a *higher magnification* of even smaller objects.

EXAMPLE: Ranges of the Human Eye, Light Microscopes, & Electron Microscopes.



Types of Electron Microscopes

- _____ types of electron microscopes are used to study *external* & *internal* cell structures.
  - □ **S**canning **E**lectron **M**icroscope (_____): visualizes _____ cell surfaces.
  - □ **T**ransmission **E**lectron **M**icroscope (_____): visualizes _____ cell structures.



PRACTICE: What type of microscope would a researcher use to measure the size of a ribosome inside a eukaryotic cell?

a) A magnifying glass.
b) Standard light microscope.
c) Transmission electron microscope.
d) Scanning electron microscope.