

# Study Guide - Cells & the Cell Theory

What are the characteristics of life?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_

What are the contributions that the following are credited for concerning the cell and the cell theory?

- Robert Hooke -
  
- Anton van Leeuwenhoek -
  
- Theodor Schwann -
  
- Matthias Schleiden -
  
- Rudolf Virchow -

What are the 3 parts of the Cell Theory?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**Prokaryotic Cells - list characteristics, movement, and an example**

**Eukaryotic Cells - characteristics, example, 4 main parts**

**Define the following terms:**

- 1. Ribosomes -**
- 2. Cytoplasm -**
- 3. Vacuole -**
- 4. Contractile Vacuole -**
- 5. Eyespot -**
- 6. Chemotaxis -**
- 7. Phototaxis -**
- 8. Geotaxis -**
- 9. Pseudopod -**
- 10. DNA -**
- 11. Cytoskeleton -**
- 12. Cell (or plasma) Membrane -**

13. Cell Wall -
14. Chloroplast -
15. Nuclear Pores -
16. Nuclear Membrane (envelope) -
17. Nucleolus -
18. Mitochondria -
19. Golgi Apparatus -
20. Lysosome -
21. Endoplasmic Reticulum -
  - a. Rough ER
  - b. Smooth ER

### 13. Microtubules

- a. microfilaments -
- b. centrioles -

### 14. Cellular Respiration -

**What are the steps of protein production?**

1. \_\_\_\_\_  
\_\_\_\_\_
2. \_\_\_\_\_  
\_\_\_\_\_
3. \_\_\_\_\_  
\_\_\_\_\_
4. \_\_\_\_\_  
\_\_\_\_\_

**Complete the following conversions:**

1. 10 cm = \_\_\_\_\_ mm
2. 1Km = \_\_\_\_\_ cm
3. 1 m = \_\_\_\_\_ mm
4. 100 cm = \_\_\_\_\_ m
5. 20 cm = \_\_\_\_\_ cm

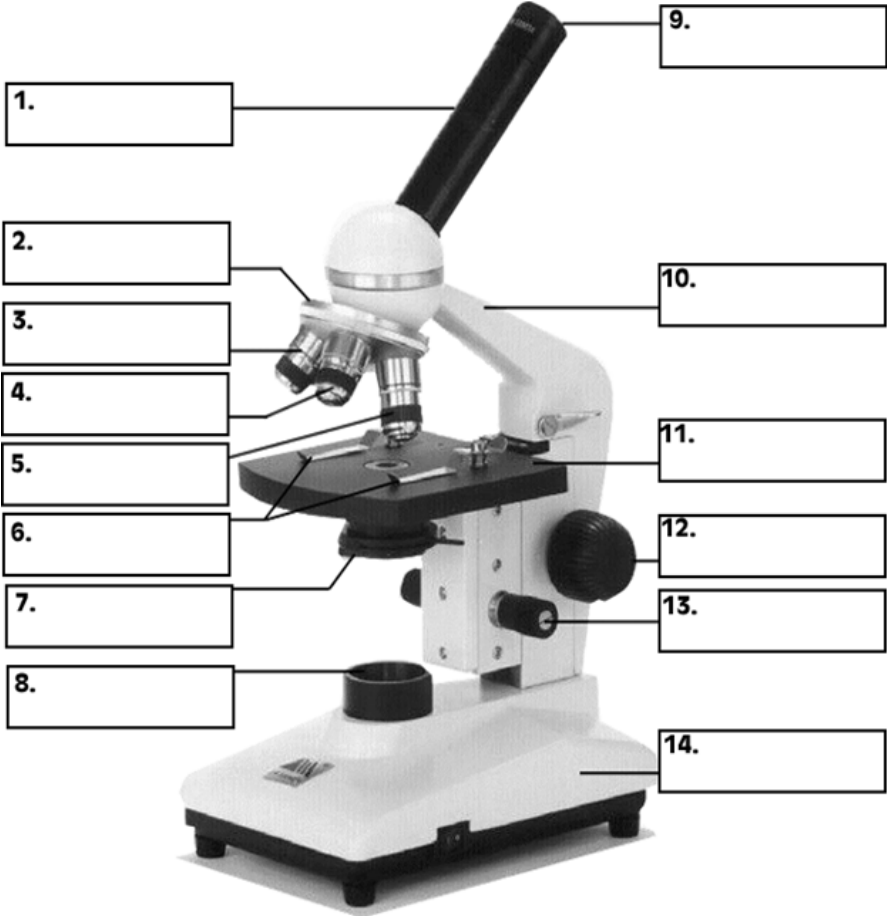
**If I am using a compound light microscope, and I am using the 4X objective, how much am I actually magnifying the object I am looking at? And what about 10X? And 40X? Total Power Magnification...**

**4x = \_\_\_\_\_**

**10x = \_\_\_\_\_**

**40x = \_\_\_\_\_**

**Label the parts of the Microscope**



Label the parts on the structures below.

