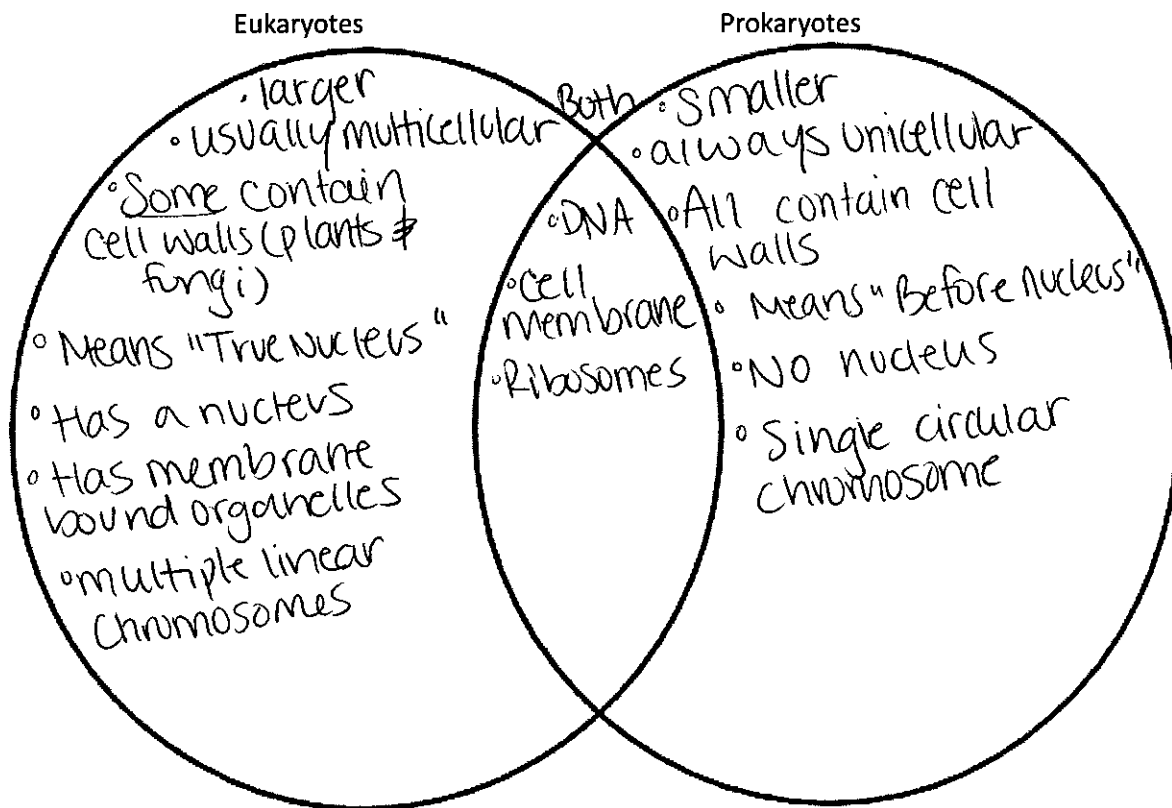


Name KEY

Study guide for Biology Cells Test

- 1) What are the three domains of life? Label each as being either prokaryotic or eukaryotic
 - Bacteria: Prokaryotic
 - Archaea: Prokaryotic
 - Eukarya: Eukaryotic
- 2) List the four kingdoms of domain Eukaryota: plantae (plants), animalia (animals), plantae (plants), & protista (protists)
- 3) Know the similarities and differences between prokaryotic and eukaryotic cells and understand how their differences benefit them.



- 4) How does the plasma membrane help maintain homeostasis?
It controls what enters & exits the cell.
- 5) What does it mean if something is hydrophobic and what part of the phospholipid is hydrophobic? water fearing. The tail
lipid
- 6) What does it mean if something is hydrophilic and what part of the phospholipid is hydrophilic?
water loving. The phosphate head
- 7) One common steroid is cholesterol. Cholesterol is located throughout the plasma membrane. a) What is its function? b) What type of macromolecule is cholesterol?
a) to make it more flexible (fluid)
b) a lipid
- 8) Carbohydrate chains are attached to surface proteins of the cell membrane. What is their function? to serve as the "I.D." card for the cell.
It helps w/ cell recognition.
- 9) What function do channel proteins in the plasma membrane serve?
to allow molecules to pass through.
- 10) List the three types of passive transport.
osmosis, diffusion & facilitated diffusion.
- 11) Active transport requires energy while passive transport does not.
- 12) What molecule is necessary for active transport to occur and how does it work?
ATP. A-P-P-P
*The bond between the 2nd & 3rd phosphates breaks & releases energy.
- 13) If a solution contains a high concentration of solute, it is said to be hypertonic (hypertonic/hypotonic)
- 14) If a solution contains a low concentration of solute, it is said to be hypotonic (hypertonic/hypotonic).

15) If a cell is placed in a hypotonic solution, it will swell (swell/shrink)



16) If a cell is placed in a hypertonic solution, it will shrink (swell/shrink)



17) What would happen to the cells of a freshwater fish if it were placed in salt water?

They would shrink








18) Osmosis occurs because a cell is attempting to become isotonic (hypertonic/hypotonic/isotonic) to its environment.

19) Protista is a kingdom that is part of what domain of life? Eukaryota

20) When an organism responds by moving toward or away from light, this is called phototaxis.

21) When an organism responds to a gradient of a chemical such as glucose, this is called chemotaxis.

22) Complete the table below on protists by including a drawing and function of each structure and indicating in which type of protist the structure is likely to be found.

adaptation	protist	Drawing of structure	Function
Eye spot	Euglena		to detect light
Chloroplast	Euglena		to carry out photosynthesis
Contractile vacuole	paramecia		to expell water from the cell
cilia	paramecia		locomotion (movement)
flagella	Euglena		locomotion (movement)
psudopods	Amoeba		locomotion (movement) & capturing prey
nucleus	ALL of them (BIC they are eukaryotes)		contains DNA