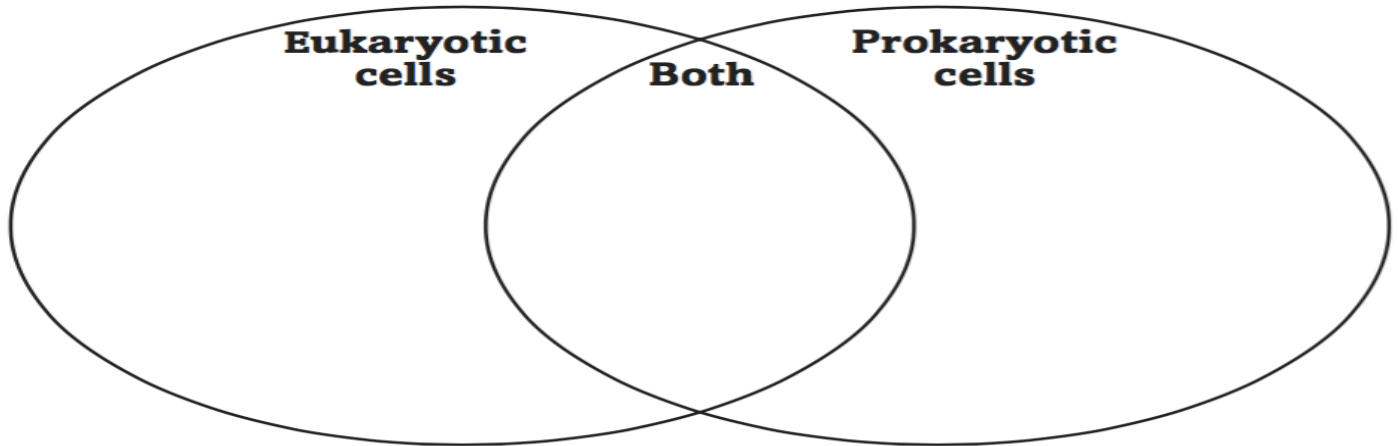


A.

Compare and contrast *eukaryotic and prokaryotic cells* by putting the phrases in the Venn diagram.

- bacteria
- contain organelles
- have a nucleus
- have membrane-bound organelles
- multicellular organisms
- unicellular organisms
- do not have membrane-bound organelles

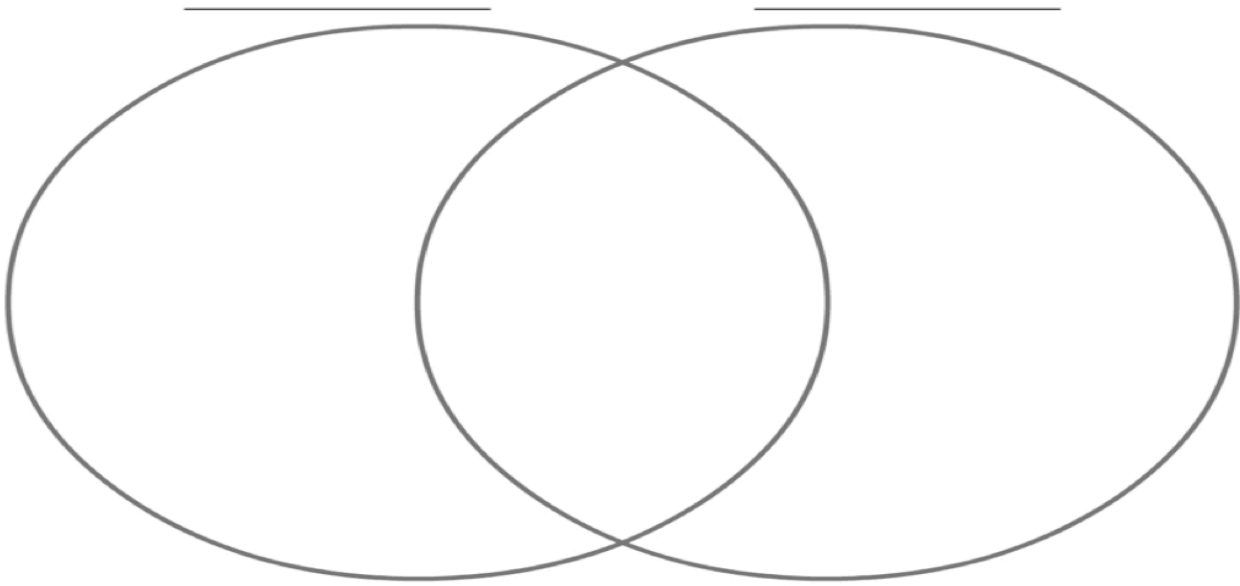


B & F

Identify the part of the cell that corresponds to each function described.

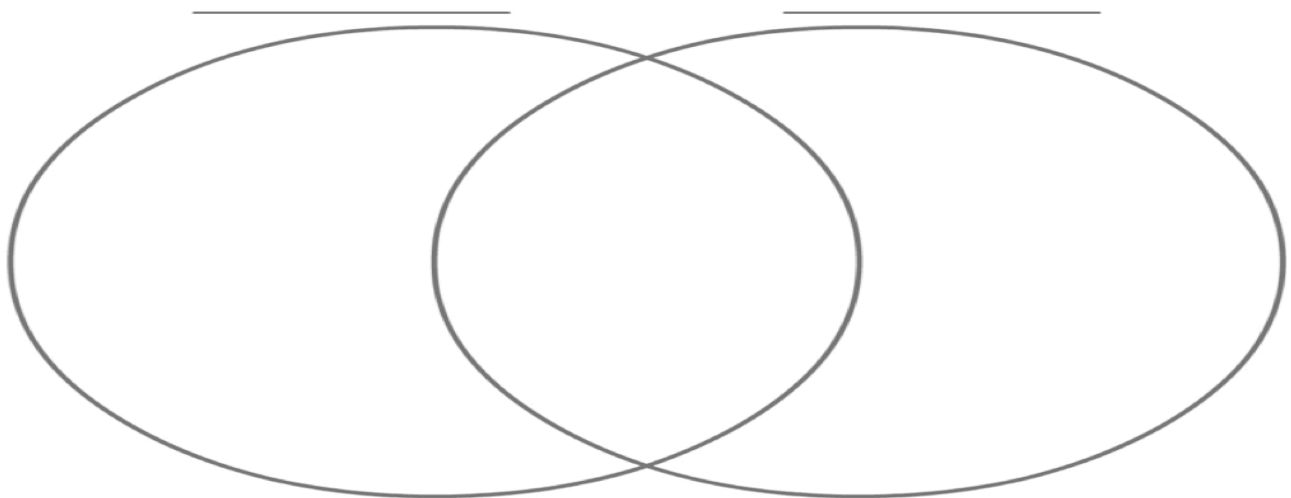
	directs cell processes; contains the cell's DNA; stores information for cell growth, function, and reproduction
	double membrane that surrounds the nucleus
	helps manufacture proteins
	produces ribosomes inside the nucleus
	site of ribosome attachment; can be smooth or rough
	modifies, sorts, and packages proteins for transport outside the cell
	membrane-bound storage area within the cell
	vesicle that contains substances that digest excess or worn-out organelles
	structure near the nucleus that functions during cell division
	converts fuel particles (sugars) into useable energy
	captures light energy and converts it to chemical energy through photosynthesis
	gives support to plant cells
	projections that allow the cell to move or to move substances along the surface of the cell

C. Compare and contrast plant and animal cells:



D. Explain homeostasis and give an example

E. Compare and contrast osmosis and diffusion



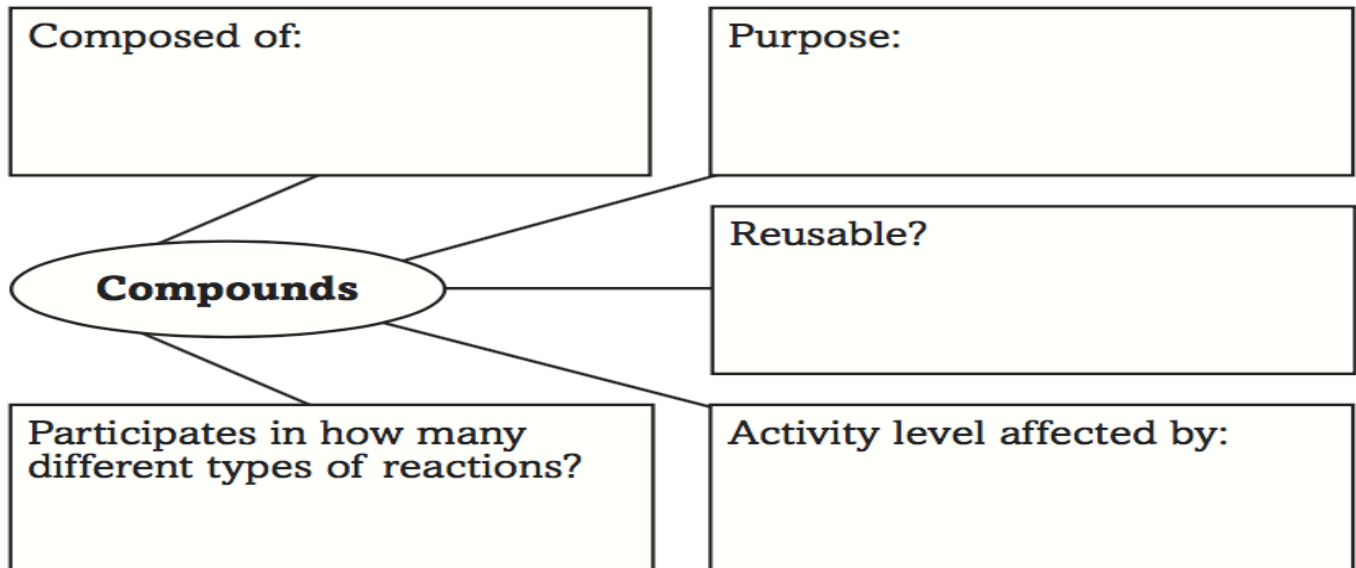
G. What is ATP? Where is it found? What is its function?

H.

Macromolecule	Function
Carbohydrates	
Lipids	
Proteins	
Nucleic Acids	

I.

Summarize key characteristics of an enzyme by completing the organizer below.



Analyze how an enzyme works by completing the following paragraph.

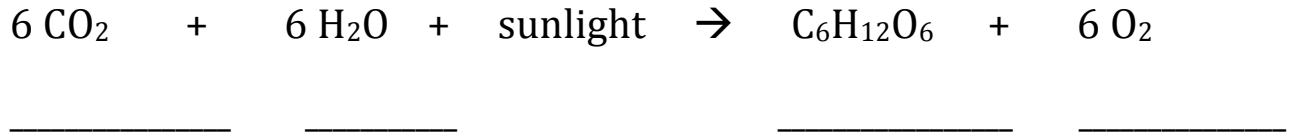
For a substrate to bind with a particular enzyme, the _____ and _____ of the substrate must match that of the enzyme's _____. In the enzyme-substrate complex, chemical bonds in the _____ are broken and _____ form. The results of the interaction between an enzyme and its _____ are products, which are released by the _____.

I. CELLS - 2 Cellular Processes

A. In photosynthesis _____ energy is converted into _____ energy.

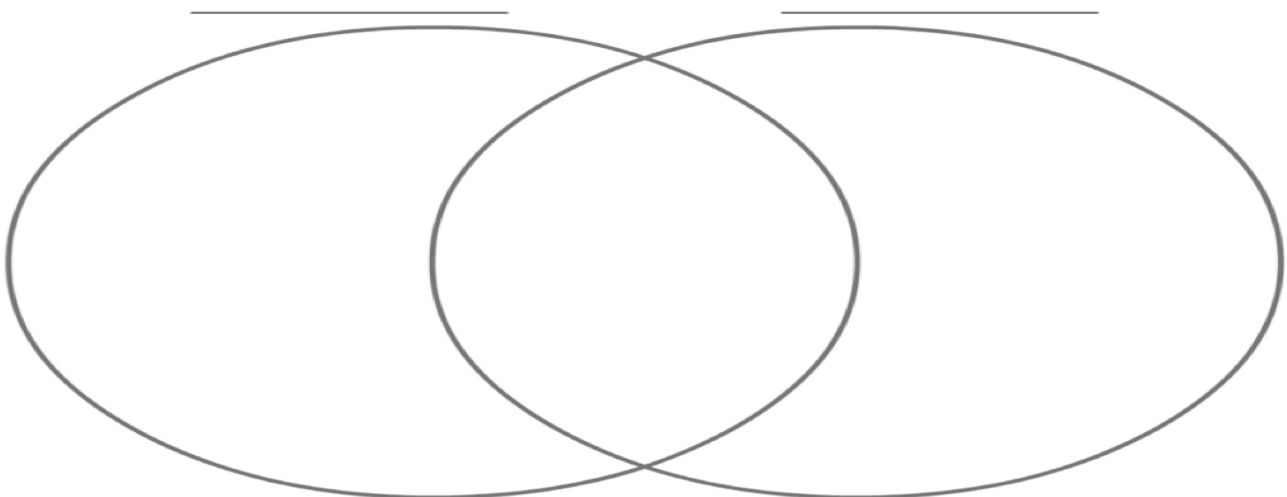
B & D.

Label the equation for photosynthesis below (circle the reactants & put a square around the products)



C. Explain the importance of photosynthesis to all life on Earth. _____

E. Compare & Contrast chemosynthesis and photosynthesis



F. In cellular respiration _____ is broken down in the presence of _____ to produce energy in the form of _____.

G & H.

Label the equation for cellular respiration below (circle the reactants & put a square around the products)



I. Explain two major differences between aerobic respiration and anaerobic respiration

1. _____
2. _____

J. Explain cell differentiation.

K.

Identify two functions of mitosis in animals.

Function of
mitosis in
animals



L. Explain how the following can affect enzyme function.

Environmental Condition	Effect on Enzyme
Substrate concentration	
pH	
Temperature	

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