

Name _____

Date _____

8.L.5.1 Stations Activity

Here is your AWESOME stations answer booklet. Be sure that you're answering in NEAT & COMPLETE SENTENCES 😊

Station 1: the Cell theory

1. What is the smallest, most basic unit of life? _____
2. Who were the first two scientists to discover cells? _____
3. A friend tells you he read somewhere that rotting garbage can turn into maggots, which are fly larvae, and the maggots then can grow into adult flies. What part of the cell theory could you use to refute his claim?

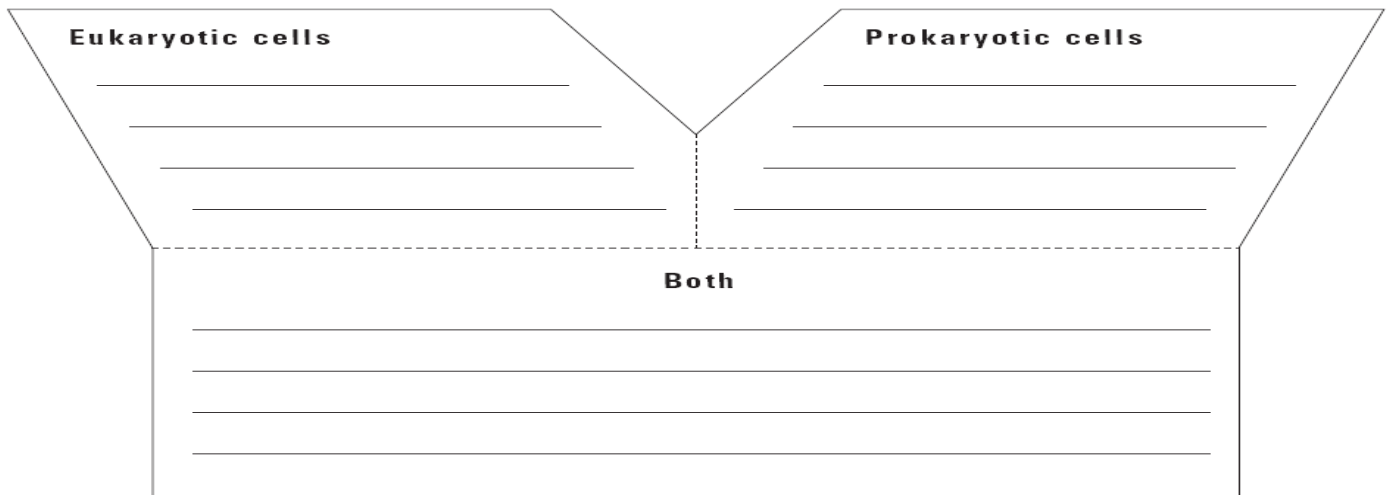
4. What are the three parts of the cell theory?

5. Do ALL cells have the same structure and same function? Be sure to support your reasoning with at least 2 explanatory details.

Station 2: Prokaryotic vs. Eukaryotic

MAIN IDEA: Prokaryotic cells lack a nucleus and most internal structures of eukaryotic cells.

In the top left side of the Y shape below, write the characteristics of eukaryotic cells. In the top right side of the Y shape below, write the characteristics of prokaryotic cells. At the bottom of the Y shape below, write the characteristics that both kinds of cells have in common.



Station 3: Organelles

Structure/Function	Cell Part/Organelle
Keeps organelles from being slammed around the cell, supports cell	
Tough, rigid outer wall found only in plant cells	
Transports materials within the cell, moving materials like proteins	
Large storage area for food, water, wastes or enzymes	
Organelle that manages/controls all the cell functions in a eukaryotic cell	
Contains chlorophyll, a green pigment that traps energy from sunlight and gives plants their green color	
Digests excess or worn-out cell parts, food particles and invading viruses or bacteria	
Small bumps located on parts of the endoplasmic reticulum; make proteins	
Produces a usable form of energy for the cell	
Packages proteins for transport out of the cell	
Covers and protects the nucleus	
Site where ribosomes are made/produced	
Allows certain materials in and out of the cell, passive transport	
Name for the collection of DNA in the nucleus of eukaryotic cells	
Small apparatus used when cells divide	
Composed of a phospholipid bilayer	

In the next table, put a check in the appropriate column(s) to indicate whether the following organelles are found in plant cells, animal cells or both.

Organelle	Plant Cells	Animal Cells	Organelle	Plant Cell	Animal Cells
Cell Wall			Lysosome		
Ribosome			Mitochondria		
Chloroplast			Nucleolus		
Chromatin			Nucleus		
Cytoplasm			Plasma membrane		
Golgi apparatus			Central vacuole		
Endoplasmic reticulum			Vacuole		

STATION 4: BRAIN POP MOVIE

Pre-Knowledge:

We breathe in _____ . The food we eat is considered _____ .

This food contains _____ which is another word for sugar.

BrainPop

The body system that is responsible for breaking down food is the _____ .

_____ . Glucose, along with _____ from your lungs is delivered to your cells through your bloodstream.

Inside tiny cellular structures called _____ these substances undergo a chemical reaction called _____ . When the reaction is complete, 3 things are left over:

1. An energy packed molecule called _____ .
2. _____ .
3. And waste gas called _____ .

Carbon dioxide is a harmful waste gas that your body needs to get rid of. If too much CO_2 builds up in your blood, you'd _____ .

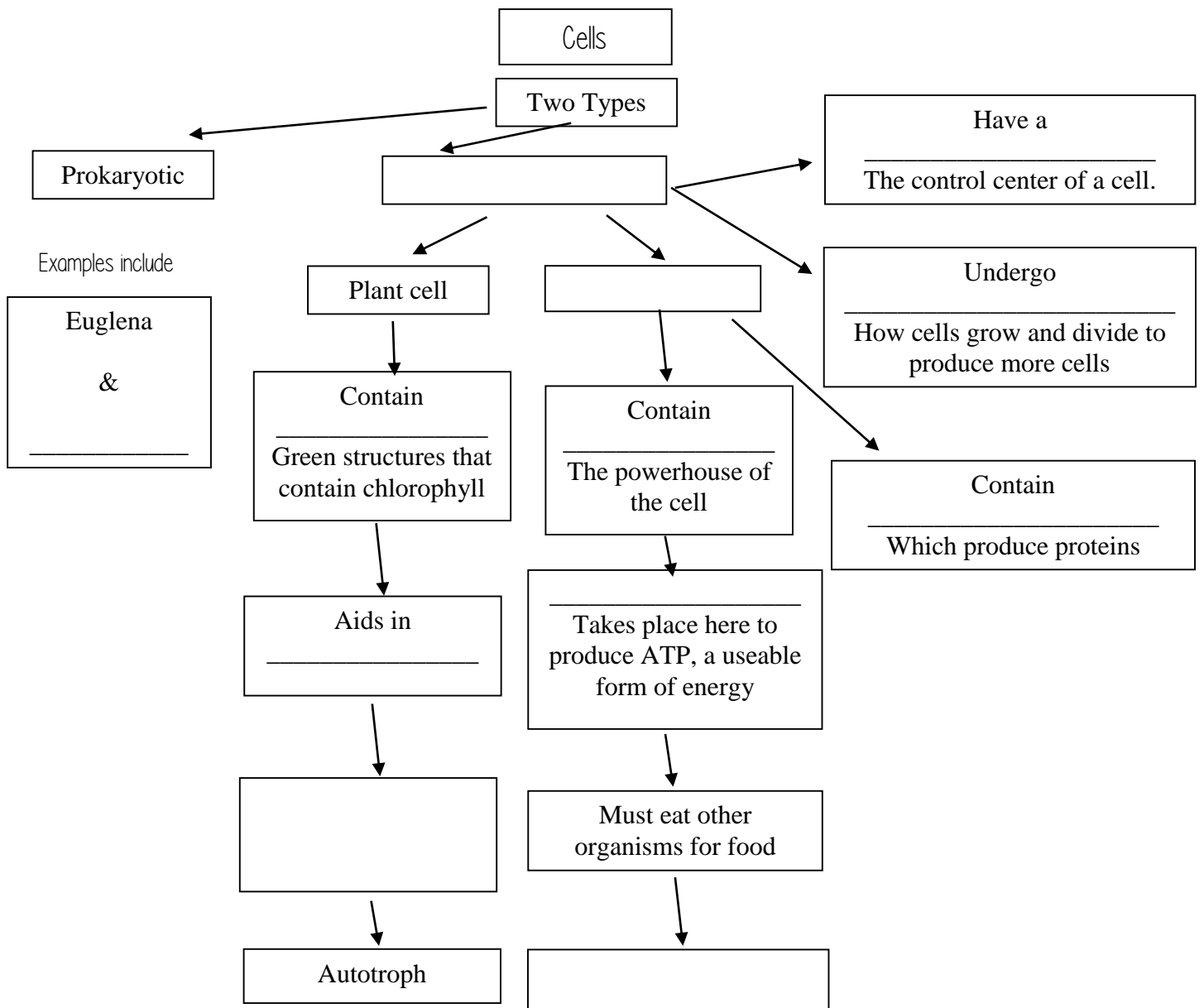
The energy in _____ allows cells to synthesize (make/produce) complex organic molecules like DNA, RNA and proteins.

Cellular respiration _____ is / is not _____ just for humans. You find it happening inside the cells of _____ living animals, and even _____ .

When your body does not have enough oxygen for cellular respiration, your cells go with a backup plan called _____ .

Here, glucose is processed with _____ instead of oxygen. It doesn't produce as much energy as aerobic respiration. This process, in which something other than oxygen is used to release energy is called _____ .

Station 5: Connecting Concepts Map



Station 6: JroomJrag

Play using your flashcards.

Station 7: Science Dictionary

Follow the directions on the poster.

You will need 1 sheet of construction paper and 1 sheet of blank copy paper.

Fold all piece of paper in half, hamburger style and put them together like a book.

Be sure to have 4 sections (one page for each branch of science)

Use the example on the table to guide you.