

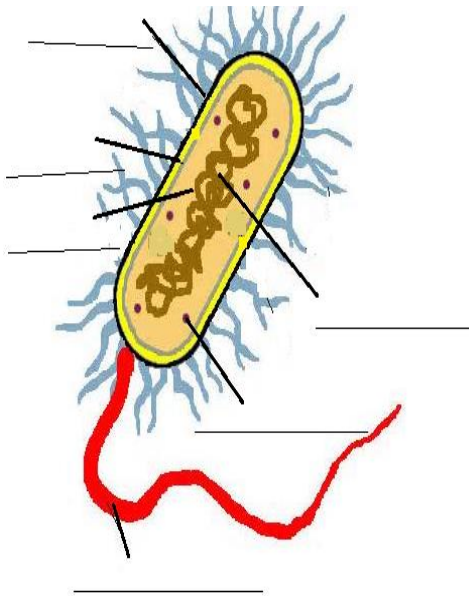
Evidence 2: Cell Structure & Function

Option 4: On line simulation

Directions for Virtual Cell Lab:

1. On www.biologybynapiet.com Click on the link titled Virtual Cell Lab. You may also get the site be directly typing in <http://tinyurl.com/4u7qwu>
2. Read the introduction on the left and the procedures for the site are at the bottom of the introduction.
3. Starting with the animal cell, record the missing organelle name, cell clue, and/or function. Also, label the organelles on the cell picture.
4. When you have completed the animal cell. Do the same thing with the plant cell.
5. When you have finished, both plant and animal cell. Trying labeling the bacteria cell. **THERE IS NOT A WEBSITE FOR THE BACTERIA CELL. YOU SHOULD BE ABLE TO COMPLETE IT BASED ON YOUR ANSWERS FROM THE PLANT AND ANIMAL CELL.**

Be sure you have answered all questions before defending this evidence of learning.



Bacteria Cell

Type of Cell _____

Part of the Cell	Function
DNA/Chromatin	
	Makes proteins according to genetic instructions; site of protein synthesis
Cell or Plasma Membrane	
	Rigid, outer covering a bacterial cell; made of peptidoglycan and found outside the membrane
Flagella	Aids in movement
	Jelly like substance consisting mainly of water, that is the medium through which materials pass inside cell

1. Exploring the rain forest, a scientist discovers a mysterious organism and brings it back to the lab to study. What 2 cell characteristics should the scientist examine to tell whether the organism is a bacteria or animal cell?

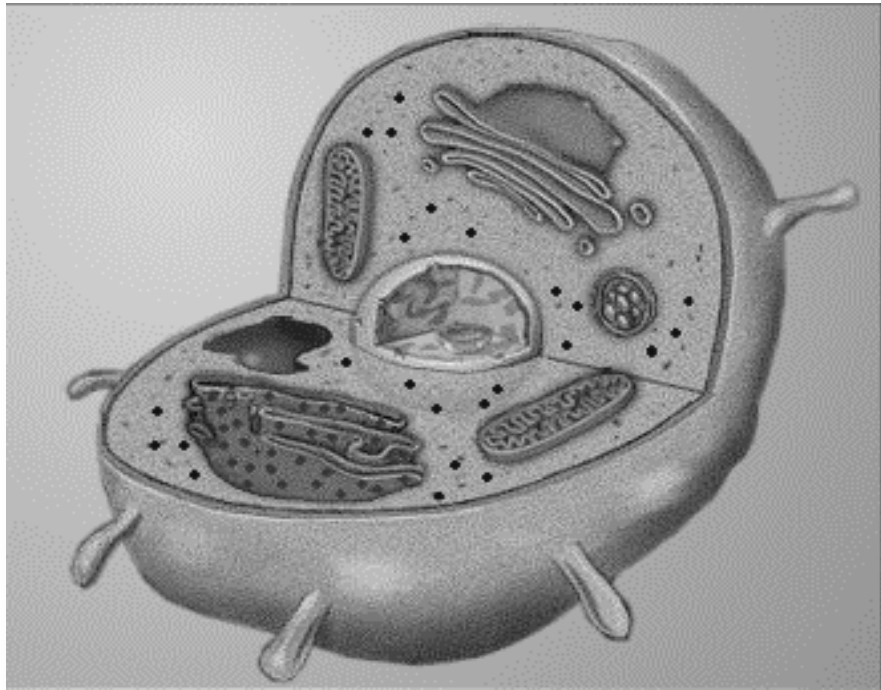
What 4 characteristics should he study to examine if it is an animal or plant cell?

2. A solar cell is a device that collects energy from the sun to make electricity. What part of a cell is most similar to a solar cell?

3. Below is the route a protein would have when it is made.
 Nucleus → ribosomes → endoplasmic reticulum → golgi body

Why does the protein go to the golgi body?

4. Why does the process to make proteins start in the nucleus?



Animal Cell

Type of Cell

Part of the Cell	Clue	Function	Part of the Cell	Clue	Function
Cell or Plasma Membrane	Factory Walls		Golgi Body or Golgi Apparatus		
	Blueprints	Uncoiled bundles of DNA, the genetic material of the cell		Recycling and maintenance center	Helps maintain and repair cell structures; digests wastes and worn out parts
		Jelly like substance consisting mainly of water, that is the medium through which materials pass inside of cell		Power generator	
Endoplasmic Reticulum (ER) Smooth and rough	Conveyor Belt			Manager	Directs the cell's activities; contains the heredity material (DNA)
Ribosome			Vacuole	Warehouse	
Centrioles	Division	Aid in cell reproduction	Nucleolus	Producers	Site where ribosomes are made



Plant Cell

Type of Cell

Part of the Cell	Clue	Function	Part of the Cell	Clue	Function
Cell or Plasma Membrane	Factory Walls				Packages proteins for transport and use outside the cell
Chromatin/DNA	Blueprints				Helps maintain and repair cell structures; digests wastes and worn out parts
Cytoplasm				Power generator	
		System of channels that move materials around the cell		Manager	
	Production Machine		Vacuole	Warehouse	
Chloroplast			Nucleolus	Producers	Site where ribosomes are made
Cell Wall					