



LESSON PLAN

Subject: Grade 7 Science

Lesson: Send for the Doctor!

Standard Addressed: Compare the structures and functions of plant and animal cells, including major organelles. (NC.7.L.1.2)

Objectives:

- Students will be able to compare bacteria, plant, and animal cells.
- Students will be able to analyze how organelles within all three cell types are the same and different.

Materials Needed:

- Device for showing *Send for the Doctor!* video
- “Comparing Cells” activity

Outline:

- Prior to this lesson, students should know that all living things are composed of cells and that there are different organelles in a cell.
- Show the video.
- Discuss the activity prompt and review the diagrams of the three different types of cells.
- Students finish the activity independently or with a partner. (Please note that there are two versions of the activity; one provides more guidance by using sentence starters and the correct number of blanks for student answers.)

Take It Further: Students research the history of the microscope and make a timeline showing the invention and improvement of microscopes through the years.

Cross-Curriculum Connection: Students design a 3D representation of one of the cell types using only materials that would have been thrown away or recycled.



LEARNING IN PLACE
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Comparing Cells

Grade 7 Science

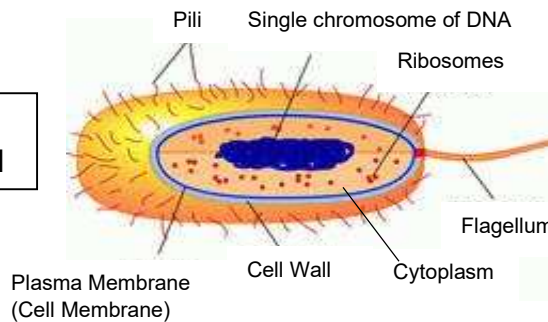
Student Name: _____ Date: _____

We learned from our 1802 visit to Salem that epidemics and pandemics were occurring then as they do now. Some of these diseases were caused by viruses, while others were caused by bacteria.

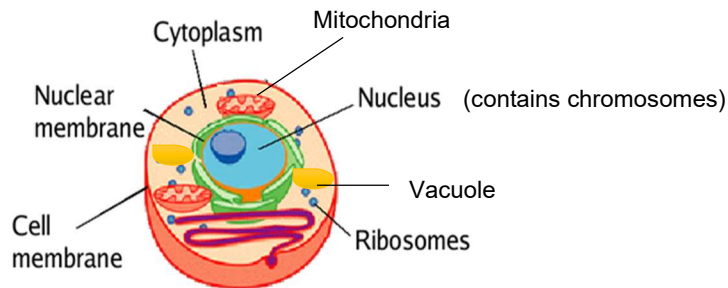
Bacteria are organisms made up of only one cell. Let's compare bacteria with a plant and an animal cell.

Use the diagrams below to help you complete the graphic organizer on the next page.

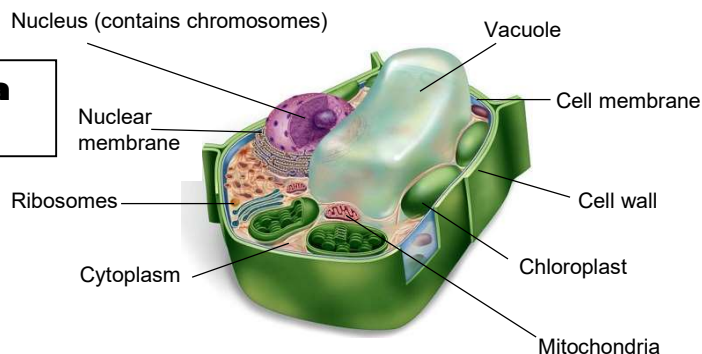
**Diagram of a
Bacterial Cell**



**Diagram of an
Animal Cell**



**Diagram of a
Plant Cell**



Comparing Cells, page 2

Grade 7 Science, Graphic Organizer A

Student Name: _____ Date: _____

How are they alike?	How are they different?	How are they alike?	How are they different?
Both have _____, _____, _____, _____, _____, and _____.	Only plant cells have _____ and _____.	Both have _____, _____, _____, _____, and _____.	Only plant cells have _____, _____, _____, _____, and _____. Only bacterial cells have _____ and _____.
Animal Cells	Plant Cells	Plant Cells	Bacterial Cells
How are they alike? Both have _____, _____, _____, and _____.		How are they different? Only animal cells have _____, _____, _____, and _____. Only bacterial cells have _____, _____, and _____.	

What organelles are found in animal, plant, and bacterial cells?

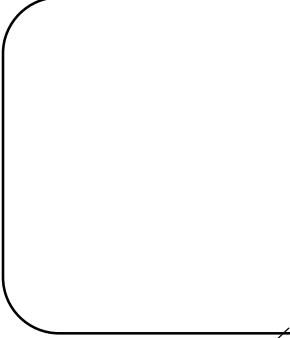
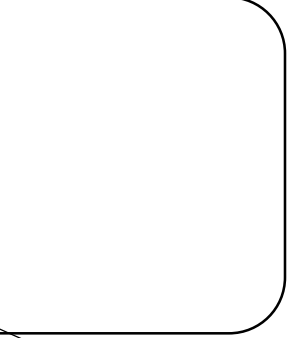
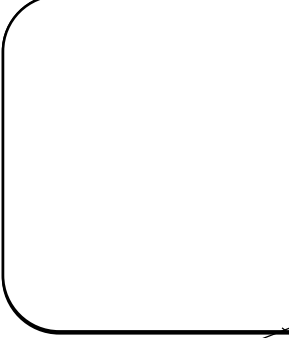
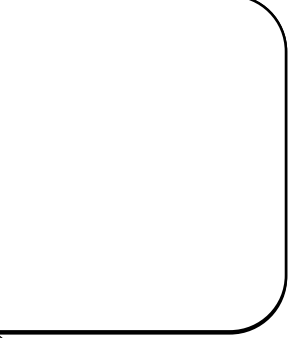
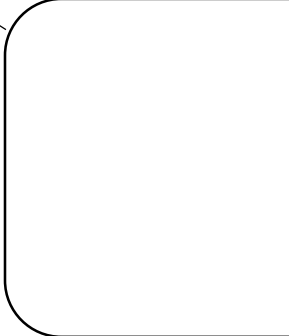
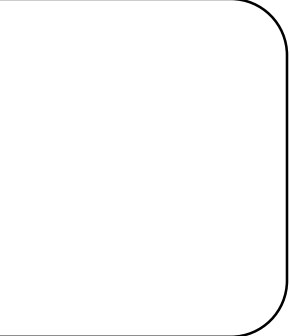
_____, _____,
and _____.



Comparing Cells, page 2

Grade 7 Science, Graphic Organizer B

Student Name: _____ Date: _____

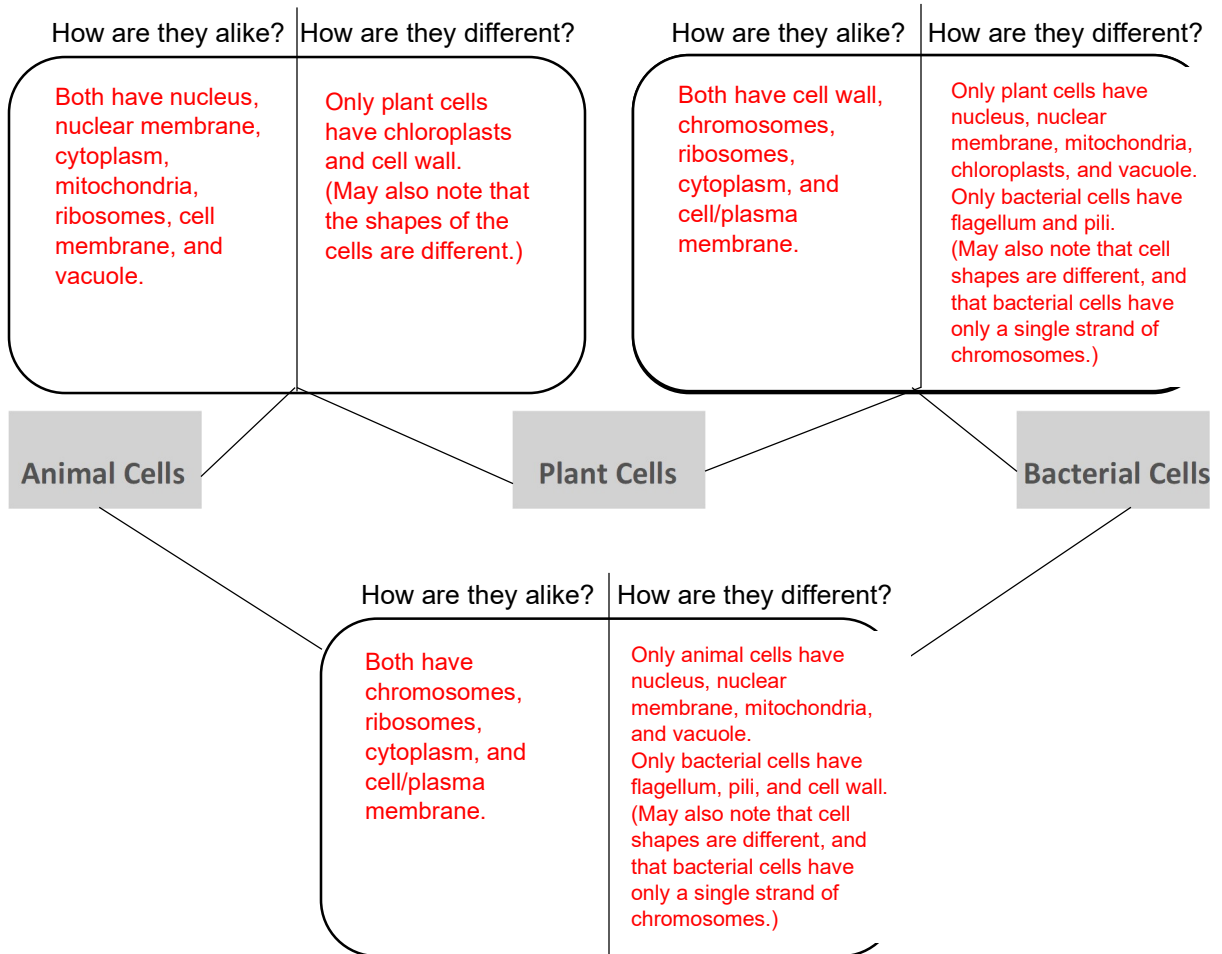
How are they alike?	How are they different?	How are they alike?	How are they different?
			
Animal Cells		Plant Cells	
			

What organelles are found in animal, plant, and bacterial cells?

Comparing Cells

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ANSWER KEY



What organelles are found in animal, plant, and bacterial cells?

Chromosomes, cytoplasm, and cell/plasma membrane

