



## 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
- “Send for the Doctor!” activity sheet

**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 12 ½ minute video, *Send for the Doctor!* (<https://youtu.be/tda1nT4yEAY>) .
- 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.



## SEND FOR THE DOCTOR

Grade 7 Science

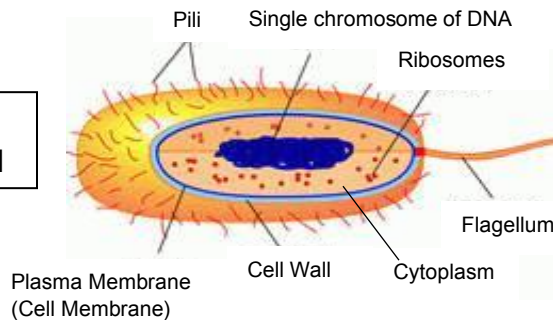
Student Name: \_\_\_\_\_ Date: \_\_\_\_\_

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.

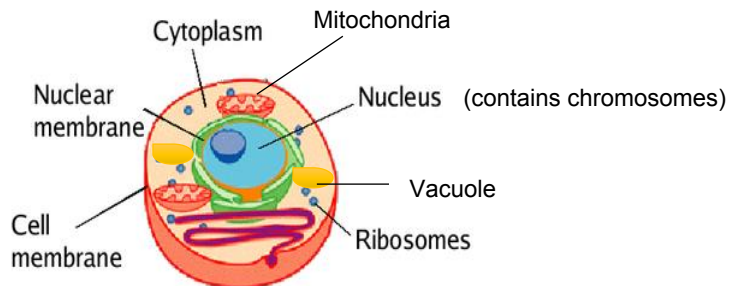
Bacteria are organisms made up of only one cell. Let's compare bacteria with a plant and an animal cell.

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

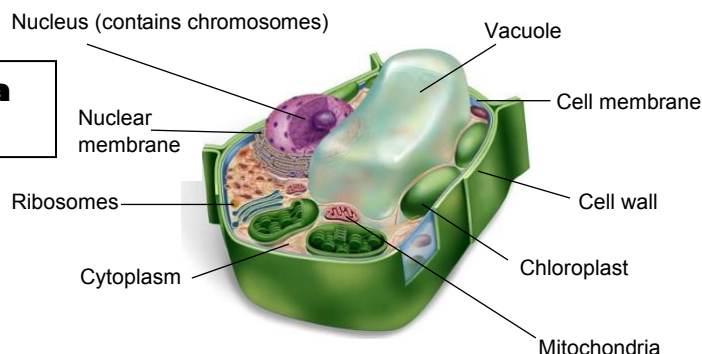
**Diagram of a Bacterial Cell**



**Diagram of an Animal Cell**



**Diagram of a Plant Cell**



## SEND FOR THE DOCTOR

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?
<p>Both have</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>and</p> <p>_____</p>	<p>Only plant cells have</p> <p>_____</p> <p>and</p> <p>_____</p>	<p>Both have</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>and</p> <p>_____</p>	<p>Only plant cells have</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>and _____</p> <p>Only bacterial cells have _____</p> <p>and _____</p>
<b>Animal Cells</b>	<b>Plant Cells</b>	<b>Plant Cells</b>	<b>Bacterial Cells</b>
<p>How are they alike?</p> <p>Both have</p> <p>_____</p> <p>_____</p> <p>and</p> <p>_____</p>		<p>How are they different?</p> <p>Only animal cells have</p> <p>_____</p> <p>_____</p> <p>and _____</p> <p>Only bacterial cells have _____</p> <p>and _____</p>	

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

\_\_\_\_\_, \_\_\_\_\_,

and \_\_\_\_\_.

## SEND FOR THE DOCTOR

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

Bacterial Cells

How are they alike?      How are they different?

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

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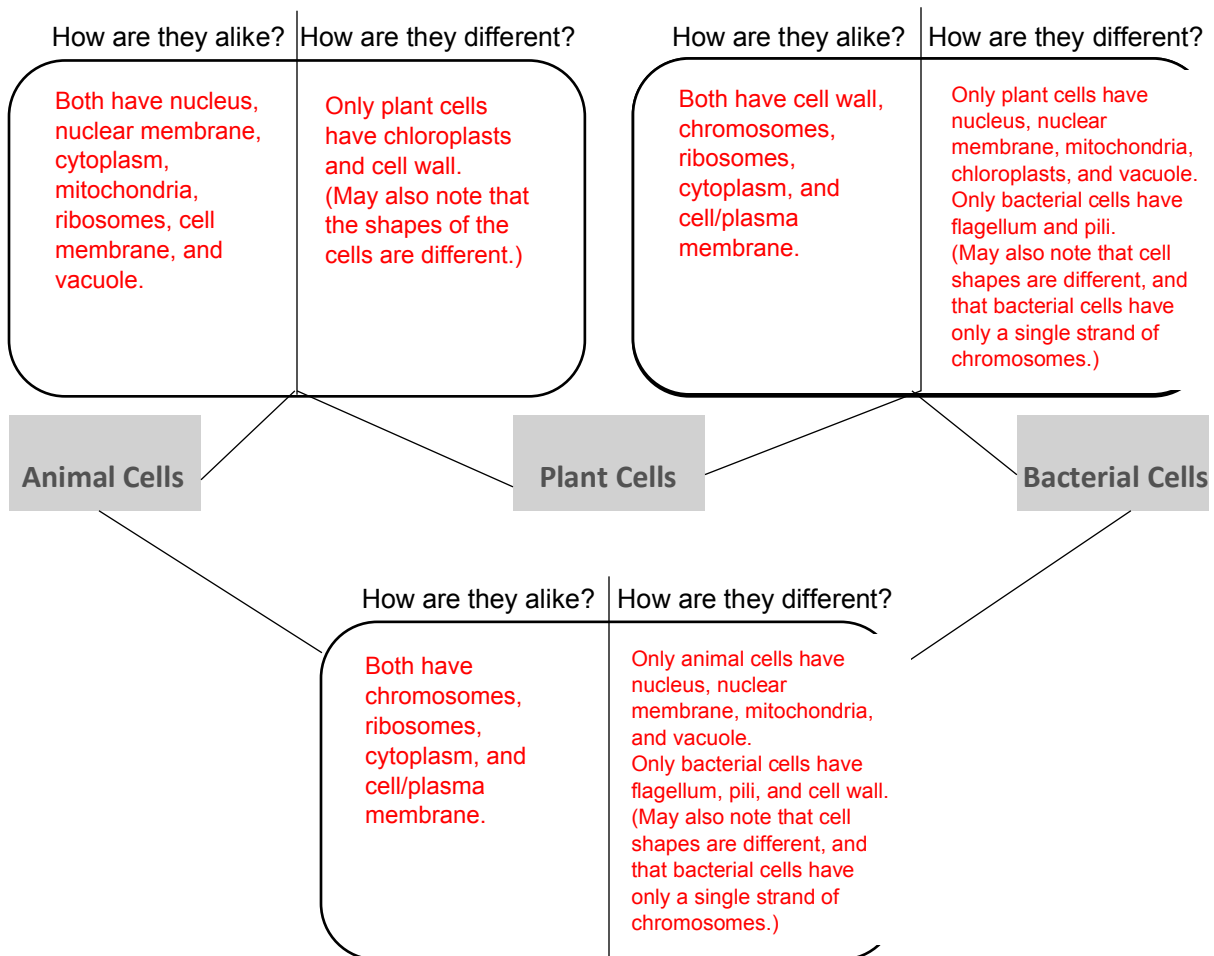


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## SEND FOR THE DOCTOR

Grade 7 Science

### ANSWER KEY



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

Chromosomes, cytoplasm, and cell/plasma membrane