

Essential Question: What are the characteristics & structures of living things?

Activity 4: A Closer Look at Cells Purpose: I can reliably identify & describe basic organelles in plant & animal cells & tell the functions of each.

Background: A good way to learn how living things “work” is to identify the structures that make up a living thing and find out what each structure’s function is in that organism, then apply what you know. This is what you will do.

Part A Instructions: Watch the cool vclip. Next, go to Act 42 in your **textbook & online** and tell the function(s) each structure in a cell performs. Then identify in which type(s) of cells this structure occurs in. Afterwards complete the summary task.

First watch this awesome [vclip by Frank Gregorio](https://www.youtube.com/watch?v=gFuEo2ccTPA) about cells. <https://www.youtube.com/watch?v=gFuEo2ccTPA>

Data Table 1. Cell Structures and Functions

Structure <i>What it is</i>	Function <i>What is does</i>	List each cell type that has these organelles • Plant • Animal
Cell Membrane		
Cytoplasm		
Nucleus	1. 2. 3. Who first identified the nucleus & when?	
Nuclear Membrane		
Organelles	1. 2. 3.	
Mitochondria		
Cell Wall		
Vacuole		
Chloroplast		

Summary: What are the key differences between plant & animal cells? Watch this [vclip for 2 of them.](https://www.youtube.com/watch?v=mnWm-RiBKcM)

<https://www.youtube.com/watch?v=mnWm-RiBKcM>

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|----|----|
| 1. | 3. |
| 2. | 4. |

The first man to witness a live cell under a microscope was [Anton van Leeuwenhoek](#), who in 1674 described the algae Spirogyra. Van Leeuwenhoek probably also saw bacteria.

Student Review: 1-Below Standard, 2-Approaching Standard, 3-Standard, 4-Above Standard
Use the scale to evaluate completeness & correctness of the job. Put score, Initial & date in boxes.

Score

Initial/Date

A Cell is Like...

Draw an everyday system that is like a cell. Then, label the parts of the system and tell what organelle or part of the cell it is most like. For each organelle, use the following sentence starter, "A (organelle) is like a (part of system) because..."

