

# Science - Cells and Microorganisms Unit

## Standards:

- **S5L3** Parts of a Cell: Students will diagram and label parts of various cells (plant, animal, single-celled, multi-celled).
  - **S5L3.a** Observation of cell structure: Use magnifiers such as microscopes or hand lenses to observe cells and their structure.
  - **S5L3.b** Identify cell parts: Identify parts of a plant cell (membrane, wall, cytoplasm, nucleus, chloroplasts) and of an animal cell (membrane, cytoplasm, and nucleus) and determine the function of the parts.
  - **S5L3.c** Multi-celled vs. single-celled organisms: Explain how cells in multi-celled organisms are similar and different in structure and function to single-celled organisms.
  - **S5L4** Microorganisms and Larger Organisms
  - **S5L4.a** ID beneficial microorganisms: Identify beneficial microorganisms and explain why they are beneficial.
  - **S5L4.b** ID harmful microorganisms: Identify harmful microorganisms and explain why they are harmful.
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## Essential Questions:

What are the main parts of a plant cell?

What are the main parts of an animal cell?

What are the differences between a plant and an animal cell?

What are the functions of the membrane, wall, cytoplasm, nucleus, and chloroplasts in a plant cell?

What are the functions of the membrane, cytoplasm, and nucleus in an animal cell?

How are cells in a multi-celled organism similar/different to cells in single-celled organisms?

What are beneficial microorganisms and how are they beneficial?

What are harmful microorganisms and how are they harmful?

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## Activities:

- Complete **Activity 1 - vocabulary exercise**. Due \_\_\_\_\_.
- Complete **Activity 2 – S5L3.a**. Due \_\_\_\_\_..
  - Draw a plant cell slide and label it.
  - Draw an animal cell slide and label it.
- Complete **Activity 3 – S5L3.b**. Due \_\_\_\_\_..
  - Complete animal cell label/function page.
  - Complete plant cell label/function page.
  - Complete “Cell Error Analysis” page.
  - Complete “Cell Aurasma.”
- Complete **Activity 4 – S5L3.c**. Due \_\_\_\_\_..
  - Complete “Multi-celled vs. Single-celled” presentation.
- Complete **Activity 5 – S5L4**. Due \_\_\_\_\_..
  - Complete “Microorganisms Video Exercise.”
- Unit test. \_\_\_\_\_..