

# Cells Unit - Learning Goals

Name: \_\_\_\_\_

Period: \_\_\_\_\_

Cells - Learning Goals	Pre-assessment	Act 1 - The Characteristics of Living things	Act 2- The Organization of the Living Universe	Act 3 – Microscope Basics	Act 4 – A Closer look at Cells	Act 5 - Plants, Protists & Animal Cells	Act 6 – Documenting Micro life	Act 7 - Photosynthesis and Cellular Respiration	Act 8 –Detecting Respiration in Cells	Post-assessment
<b>Characteristics of Living Things</b>										
1. I am able to <i>describe</i> the <b>characteristics</b> that make something “living”										
<b>Microscopy</b>										
2. I can properly use and maintain a Compound Light Microscope AND tell the names & functions of its parts										
<b>Cell Identification &amp; Organelles.</b>										
3. I can explain the key similarities & differences between Plant and Animal cells										
<b>Photosynthesis &amp; Cellular Respiration</b>										
4. I can trace key components of life (O <sub>2</sub> , Food, Water & CO <sub>2</sub> ) in & out of plant & animal cells.										

**Instructions:** Using the performance expectations sheet, write your current level of understanding (1-4) for each learning goal after completing an activity.

Unit C: Cells Performance Expectations	Level 1	Level 2	Level 3	Level 4
<p><b>Learning Goal #1: Characteristics of Living Things</b> I am able to <i>describe</i> the <b>characteristics</b> that make something “living”</p>	<p>Cell Cell Theory      Multicellular Characteristics of Living Things Cilia                  Protist Flagella              Unicellular Fungi Virus</p>	<ul style="list-style-type: none"> <li>I can explain that a cell is the basic unit of life and that all living things are made of cells.</li> <li>I can <i>identify</i> something as living or nonliving</li> </ul>	<ul style="list-style-type: none"> <li><i>I can reliably describe</i> the characteristics of living things using an organism as an example.</li> <li>I know how cells fit in the structural organization of living things.</li> </ul>	<p><i>I can reliably explain to others</i> all the characteristics of living things while using a living example.</p>
<p><b>Learning Goal #2: Microscopy</b> I can properly use and maintain a Compound Light Microscope and tell the names &amp; functions of its parts</p>	<p>Magnify, Magnification Coarse Focus Diaphragm Eyepiece Fine Focus Low power objective Med power objective High power objective Total Magnification Turret</p>	<p>I am able to <i>identify</i> different parts of a microscope and tell what each part does.</p>	<ul style="list-style-type: none"> <li>I am able to prepare wet &amp; dry mount slides and <i>properly use &amp; maintain</i> a microscope.</li> <li>I can <i>create &amp; properly label</i> accurate Micro Figures of required plant &amp; animal samples.</li> </ul>	<p>I can <i>create and properly label</i> accurate Micro Figures of unknown plant or animal samples.</p>
<p><b>Learning Goal #3: Cell Identification &amp; Organelles</b> I can explain the key similarities &amp; differences between Plant and Animal cells</p>	<p>Animal Cell      Plant Cell Bacteria Cell Membrane Cell Wall Chloroplast Mitochondria Nucleus Nuclear Membrane Organelles</p>	<ul style="list-style-type: none"> <li>Given a sample or figure, I can <i>identify</i> plant and animal cells.</li> <li>I can reliably describe the key similarities &amp; differences between Plant and Animal cells.</li> </ul>	<p>Given a sample or a Figure, I can reliably <i>identify</i> and <i>describe</i> the basic organelles in plant and animal cells &amp; tell the functions of each.</p>	<p>I can reliably <i>explain to others</i> <i>how</i> each organelle inside plant and animal cells help a cell to function.</p>
<p><b>Learning Goal #4 Photosynthesis &amp; Cellular Respiration</b> I am able to trace key components of life (O<sub>2</sub>, Sugar, Water, CO<sub>2</sub>) in &amp; out of plant &amp; animal cells.</p>	<p>Carbohydrate Cellular Respiration Cytoplasm Photosynthesis Sugar Starch</p>	<p>I can</p> <ul style="list-style-type: none"> <li>identify the organelles involved in photosynthesis &amp; cell respiration.</li> <li>explain why plant cells perform photosynthesis.</li> <li>explain why plant &amp; animal cells perform cell respiration.</li> </ul>	<p>I can reliably describe the process of:</p> <ul style="list-style-type: none"> <li>Photosynthesis in plant cells. CO<sub>2</sub> + H<sub>2</sub>O + Sun -&gt; Sugar + O<sub>2</sub></li> <li>Respiration in plant + animal cells. Sugar + O<sub>2</sub> -&gt; CO<sub>2</sub> + H<sub>2</sub>O + Thermal Energy</li> </ul>	<p>I can reliably explain to others, using a system analysis, the process of:</p> <ol style="list-style-type: none"> <li>Photosynthesis in plant cells. CO<sub>2</sub> + H<sub>2</sub>O + Sun -&gt; Sugar + O<sub>2</sub></li> <li>Respiration in plant + animal cells. Sugar + O<sub>2</sub> -&gt; CO<sub>2</sub> + H<sub>2</sub>O + Thermal Energy</li> </ol>

**Student Leadership, Participation & Teamwork Self-Assessment (Tell 2 examples per area that support your score)**

*1 – Below Standard, 2 – Approaching Standard, 3 – Standard, 4 – Above Standard*

1. Leadership:  Explain w/2+examples: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Participation:  Explain w/2+ examples: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. Teamwork:  Explain w/2+examples: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Student Growth and Learning Progress and Goal Setting**

4. Tell three concepts/learning goals that you have shown growth in. **Explain.**  
a. \_\_\_\_\_  
b. \_\_\_\_\_  
c. \_\_\_\_\_

5. Tell three concepts/learning goals you still need more growth in. **Explain.**  
a. \_\_\_\_\_  
b. \_\_\_\_\_  
c. \_\_\_\_\_

**Parent Signature** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Teacher Review - To be completed by your teacher**

*1 – Below Standard, 2 – Approaching Standard, 3 – Standard, 4 – Above Standard*

- 1. Activities completed .....
- 2. Corrections made in red pen .....
- 3. Self-assessment & learning goals completed above.....
- 4. Parent review completed .....
- FINAL SCORE** .....
- Leadership, Participation & Teamwork rating**.....

Voc 1/2	Voc 3/4
CH/EC	Editor