

## CURRICULUM GUIDE

Life Sciences: Students develop an understanding of the structure and function of cells

SUBJECT: Science

GRADE: 7<sup>th</sup> GradeTIMELINE: 1<sup>st</sup> Quarter

Standard	Kid Friendly Learning Objectives	Content (subject or topic covered in Journeys/My Perspectives)	DOK Level	Skills (ability, practice, aptitude that will be learned)	Assessment	Academic Vocabulary
<b>7.L1U1.8 (2 wks)</b>  Obtain, evaluate, and communicate information to provide evidence that all living things are made of cells, cells come from existing cells, and cells are the basic structural and functional unit of all living things.	I can obtain, evaluate, and communicate information to provide evidence that all living things are made of cells, cells come from existing cells, and cells are the basic structural and functional unit of all living things.	<u><b>Life Science</b></u> <b>Exploring Life</b> Chapter 1, Lesson 3 P. 13-16  <b>Cells and Life</b> Chapter 2, Lesson 1 P. 17-22	<b>DOK 3-4</b>	<ul style="list-style-type: none"> <li>• cite evidence</li> <li>• compare</li> <li>• hypothesize</li> <li>• formulate</li> <li>• design</li> </ul>	<b>Obtain, evaluate, and communicate information:</b> Communicate scientific information and/or technical information (e.g. about a proposed process or system) in different formats (e.g., verbally, graphically, textually, and mathematically).	<ul style="list-style-type: none"> <li>• cells</li> <li>• multicellular organisms</li> <li>• functions</li> <li>• specialized</li> </ul>
<b>7.L1U1.9 (2 wks)</b>  Construct an explanation to demonstrate the relationship between major cell structures and cell functions (plant and animal).	I can construct an explanation to demonstrate the relationship between major cell structures and cell functions (plant and animal).	<u><b>Life Science</b></u> <b>The Cell</b> Chapter 2 Lesson 2 P. 23-28  <b>The Cell Cycle and Cell Division</b> Chapter 3, Lesson 1 P. 39-43	<b>DOK 3-4</b>	<ul style="list-style-type: none"> <li>• explain</li> <li>• create</li> <li>• compare and contrast</li> <li>• differentiate</li> </ul>	<b>Construct and explanation:</b> <ul style="list-style-type: none"> <li>• Apply scientific reasoning to show why the data are adequate for the explanation or conclusion.</li> <li>• Construct explanations from</li> </ul>	<ul style="list-style-type: none"> <li>• organ systems</li> <li>• cells</li> <li>• functions</li> </ul>

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					models or representations.	
<b>7.L1U1.11 (1 wk)</b> Construct an explanation for how organisms maintain internal stability and evaluate the effect of the external factors on organisms' internal stability.	I can construct an explanation for how organisms maintain internal stability and evaluate the effect of the external factors on organisms' internal stability.	<b>Life Science</b> <b>Moving Cellular Materials</b> Chapter 2, Lesson 3 P. 29-33	<b>DOK 3-4</b>	<ul style="list-style-type: none"> <li>• predict</li> <li>• connect</li> <li>• summarize</li> <li>• explain</li> </ul>	<b>Construct an explanation</b> <ul style="list-style-type: none"> <li>• Construct explanations for either qualitative or quantitative relationships between variables.</li> </ul>	<ul style="list-style-type: none"> <li>• single cell</li> <li>• systems</li> <li>• tissue</li> <li>• organs</li> <li>• stimuli</li> <li>• homeostasis</li> </ul>
<b>7.L1U1.10 (2 wks)</b> Develop and use a model to explain how cells, tissues, and organ systems maintain life (animals)	I can develop and use a model to explain how cells, tissues, and organ systems maintain life (animals).	<b>Life Science</b> <b>Levels of Organization</b> Chapter 3 Lesson 2 P. 47-52	<b>DOK 3-4</b>	<ul style="list-style-type: none"> <li>• cite evidence</li> <li>• differentiate</li> <li>• formulate</li> <li>• hypothesize</li> </ul>	<b>Develop and use a model:</b> <ul style="list-style-type: none"> <li>• Use and/or develop models to predict, describe, and support explanations about phenomena in natural systems, including those representing</li> </ul>	<ul style="list-style-type: none"> <li>• cells</li> <li>• organisms</li> <li>• structure</li> <li>• function</li> <li>• atom</li> <li>• element</li> <li>• species</li> <li>• population</li> </ul>

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					inputs and outputs, and those at unobservable scales. • Develop models to describe unobservable mechanisms.	
<b>7.L2U1.12 (1wk)</b> Construct an explanation for how some plant cells convert light energy into food energy.	I can construct an explanation for how some plant cells convert light energy into food energy.	<u><b>Life Science</b></u> <b>Cells and Energy</b> Chapter 2 Lesson 4 P. 34-38  <b>Energy Processing in Plants</b> Chapter 10, Lesson 1 P. 153-158	<b>DOK 3-4</b>	<ul style="list-style-type: none"> <li>•cite evidence</li> <li>•differentiate</li> <li>•formulate</li> <li>•hypothesize</li> <li>•create</li> </ul>	<b>Construct an explanation:</b> <ul style="list-style-type: none"> <li>• Apply scientific knowledge and evidence to explain real-world phenomena, examples, or events.</li> <li>• Construct explanations from models or representations</li> </ul>	<ul style="list-style-type: none"> <li>•photosynthesis</li> <li>•chemical reaction</li> <li>•organic</li> <li>•inorganic</li> </ul>