

## 3-LS1 From Molecules to Organisms: Structures and Processes

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Students who demonstrate understanding can:

**3-LS1-1. Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.** [Clarification Statement: Changes organisms go through during their life form a pattern.] [Assessment Boundary: Assessment of plant life cycles is limited to those of flowering plants. Assessment does not include details of human reproduction.]

The performance expectations above were developed using the following elements from the NRC document *A Framework for K-12 Science Education*:

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
<p><b>Developing and Using Models</b> Modeling in 3–5 builds on K–2 experiences and progresses to building and revising simple models and using models to represent events and design solutions.</p> <ul style="list-style-type: none"> <li>▪ Develop models to describe phenomena. (3-LS1-1)</li> </ul> <p style="text-align: center; border-top: 1px dashed black; margin-top: 10px;"><i>Connections to Nature of Science</i></p> <p><b>Scientific Knowledge is Based on Empirical Evidence</b></p> <ul style="list-style-type: none"> <li>▪ Science findings are based on recognizing patterns. (3-LS1-1)</li> </ul>	<p><b>LS1.B: Growth and Development of Organisms</b></p> <ul style="list-style-type: none"> <li>▪ Reproduction is essential to the continued existence of every kind of organism. Plants and animals have unique and diverse life cycles. (3-LS1-1)</li> </ul>	<p><b>Patterns</b></p> <ul style="list-style-type: none"> <li>▪ Patterns of change can be used to make predictions. (3-LS1-1)</li> </ul>
<p><i>Connections to other DCIs in third grade:</i> N/A</p> <p><i>Articulation of DCIs across grade-bands:</i> <b>MS.LS1.B</b> (3-LS1-1)</p>		
<p><i>Common Core State Standards Connections:</i></p> <p><i>ELA/Literacy –</i></p> <p><b>RI.3.7</b> Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur). (3-LS1-1)</p> <p><b>SL.3.5</b> Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details. (3-LS1-1)</p> <p><i>Mathematics –</i></p> <p><b>MP.4</b> Model with mathematics. (3-LS1-1)</p> <p><b>3.NBT</b> Number and Operations in Base Ten (3-LS1-1)</p> <p><b>3.NF</b> Number and Operations—Fractions (3-LS1-1)</p>		

\*The performance expectations marked with an asterisk integrate traditional science content with engineering through a Practice or Disciplinary Core Idea.

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