3-LS1 From Molecules to Organisms: Structures and Processes

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
- **Developing and Using Models**
  - 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.
    - Develop models to describe phenomena. (3-LS1-1)

### Disciplinary Core Ideas
- **LS1.B: Growth and Development of Organisms**
  - Reproduction is essential to the continued existence of every kind of organism. Plants and animals have unique and diverse life cycles. (3-LS1-1)

### Crosscutting Concepts
- **Patterns**
  - Patterns of change can be used to make predictions. (3-LS1-1)

### Connections to Nature of Science
- **Scientific Knowledge is Based on Empirical Evidence**
  - Science findings are based on recognizing patterns. (3-LS1-1)

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