

# UNIT 2: Characteristics of Living Things

## Unit Summary:

In this unit of study, students develop an understanding of how plants and animals use their external parts to help them survive, grow, and meet their needs, as well as how the behaviors of parents and offspring help offspring survive. The understanding that young plants and animals are like, but not exactly the same as, their parents is developed.

## Concepts & Vocabulary:

Key vocabulary may include but are not limited to: Plants and Animals, Parent structures, Offspring structures (alike but not exactly alike), Patterns, Offspring behavior (e.g. crying, cheeping, vocalizations), Parent response (e.g. feeding, comforting, protecting the offspring), Survive

## Stage 1 – Desired Results

### Performance Expectations: (PE) (Established Goals / Content Standards)

- 1-LS1-2: Read texts and use media to determine patterns in the behavior of parents and offspring that help offspring survive.
  - **Clarification Statement:** Examples of patterns of behaviors could include the signals that offspring make (such as crying, chirping, and other vocalizations) and the responses of the parents (such as feeding, comforting, and protecting the offspring).
- 1-LS3-1: Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.
  - **[Clarification Statement:** Examples of patterns could include features plants or animals share. Examples of observations could include leaves from the same kind of plant are the same shape but can differ in size; and, a particular breed of dog looks like its parents but is not exactly the same.]
  - **[Assessment Boundary:** Assessment does not include inheritance or animals that undergo metamorphosis or hybrids.]

### Enduring Understandings (1-3 max)

Students will understand that:

- All living things go through a life cycle and adopt characteristics from their parents to help them survive.
- Young animals and plants are very much, but not exactly like their parents.

Possible Misunderstanding(s):

- Life cycle stages of the same animal can look different.

### Essential Questions (1-2 EQ per EU)

- How do organisms grow and develop?
- What behavior patterns can be observed among parents that help offspring survive?
- How are offspring alike and different from their parents?

Science & Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
<b>Analyzing and Interpreting Data</b> <ul style="list-style-type: none"> <li>● Analyze and interpret data to make sense of phenomena using logical reasoning. (3-LS3-1)</li> </ul>	<b>LS3.A: Inheritance of Traits</b> <ul style="list-style-type: none"> <li>● Many characteristics of organisms are inherited from their</li> </ul>	<b>Patterns</b> <ul style="list-style-type: none"> <li>● Similarities and differences in patterns can be used to sort and</li> </ul>

<p><b>Obtaining, Evaluating, and Communicating Information</b></p> <ul style="list-style-type: none"> <li>• Read grade-appropriate texts and use media to obtain scientific information to determine patterns in the natural world. (1-LS1-2)</li> </ul>	<p>parents. (3-LS3-1)</p> <p><b>LS1.B: Growth and Development of Organisms</b></p> <ul style="list-style-type: none"> <li>• Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring to survive. (1-LS1-2)</li> </ul>	<p>classify natural phenomena. (3-LS3-1)</p> <ul style="list-style-type: none"> <li>• Patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence. (1-LS1-2)</li> </ul> <p>-----</p> <p><b>Connections to Nature of Science</b></p> <p><b>Scientific Knowledge is Based on Empirical Evidence</b></p> <ul style="list-style-type: none"> <li>• Scientists look for patterns and order when making observations about the world. (1-LS1-2)</li> </ul>
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<p align="center"><b>Stage 2 – Model Assessments</b></p>	
<p><b>Transfer Task(s)</b></p> <ul style="list-style-type: none"> <li>• Students will complete a draw and label activity that demonstrates how behaviors of parents and offspring help offspring survive and how plants and animals are not exactly like their parents. Include a written or oral explanation. <ul style="list-style-type: none"> <li>◦ <a href="#">Example</a></li> </ul> </li> <li>• Repeat the <a href="#">Are You My Parents?</a> task with a different type of bird or animal.</li> </ul> <p><b>Audience:</b></p> <ul style="list-style-type: none"> <li>• Peer, self-reflection, teacher</li> </ul>	<p><b>Formative Evidence:</b></p> <ul style="list-style-type: none"> <li>• Slide Diagnostic Questions</li> <li>• Oral Comprehension Checks</li> <li>• Teacher Observation</li> <li>• Class Discussion/Anecdotal Notes</li> <li>• <a href="#">Parent and Offspring Similarities</a></li> <li>• <a href="#">Are You My Parents?</a></li> <li>• <a href="#">Corgi Puppies</a></li> <li>• Mystery Science End of Mystery Assessments: <ul style="list-style-type: none"> <li>◦ <a href="#">Mystery 2 Assessment</a></li> <li>◦ <a href="#">Mystery 4 Assessment</a></li> <li>◦ <a href="#">Mystery 5 Assessment</a></li> </ul> </li> </ul>

<p align="center"><b>Stage 3 – Learning Plan Resources and Activities</b></p>
<p><b>Suggested Resources for Planning:</b></p> <p><a href="#">Mystery Science</a></p> <p><a href="#">Mystery Science Supply List</a></p> <p><a href="#">Grade 1 Mystery Science Planning Guide</a></p> <p><a href="#">New Jersey Center for Teaching &amp; Learning</a></p>

## Wonders of Science

### **Tower Garden lessons-**

1. <https://www.towergarden.com/content/dam/towergarden/resources/lesson-plans/tower-garden-plant-parent-booklet-K1.pdf>
2. <https://www.towergarden.com/content/dam/towergarden/resources/lesson-plans/tower-garden-reading-compare-repro-K1.pdf>
3. <https://www.towergarden.com/content/dam/towergarden/resources/lesson-plans/tower-garden-science-journal-page-K1.pdf>
- 4.

### **Standard Based Grading:**

[1-LS1-2 Analysis Chart](#)

[1-LS3-1 Analysis Chart](#)

### **Learning Activities:**

#### **1-LS1-2:**

- [Mystery 2 Read Along: Why do baby ducks follow their mother?](#)
- [Mamma Elephant and Her Offspring](#)
- [https://docs.google.com/spreadsheets/d/1KxczQ1CW0C3plg0\\_v\\_u8FlN8asuutkCathbSo6u-4l/edit#gid=0](https://docs.google.com/spreadsheets/d/1KxczQ1CW0C3plg0_v_u8FlN8asuutkCathbSo6u-4l/edit#gid=0)

#### **1-LS3-1**

- [Mystery 4 Read Along: Why do family members look alike?](#)
- [Identify Parents and Offspring](#)
- [Who's Your Animal Parent?](#)
- [Who's Your Plant Parent](#)
- [NJCTL Slides - Parent/Offspring Differences](#)

### **Additional Phenomena Videos:**

- [Cute Baby Animals](#)
- [Mouthbrooding Fish](#)
- [Ultimate Animal Moms](#)

### **Suggested Methods:**

- Phenomena based learning
- Problem Based Learning (PBL)
- Inquiry-Based Learning
- Case studies
- Engaging in Argument w/ evidence