



**Grade 1 Science**  
**Unit 3 Life Science**  
**Topic 6 Parents and Offspring - 29 days**

**Unit Overview** - Topic 5 will expand on students' knowledge of plants and animals. Students will discover how parts of a plant help a plant survive and how animal parts help animals survive. Students will use their senses to compare different environments. In **Topic 6**, students will learn about the life cycles of plants and animals, how young plants and animals are different from their parents, what animals need to live, and how parent's behavior helps their young survive.

**Topic Essential Question:** How are parents and their young alike and different?

**Lessons**

- Topic Launch/Quest Kickoff
- Lesson 1 Plant and Animal Life Cycles
- Lesson 2 Observe Parents and Young
- Lesson 3 Patterns in Animal Behavior
- Topic Close –Assessment, Quest Findings

**NYSSLS Performance Expectations (PE)**

**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, cheeping, 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 some young plants and animals are similar to, 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.]**

**K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.**

**Higher Order Thinking (HOTS)**

Higher Order Thinking Skills (HOTS) will be identified within each topic plan. Grade 1 HOTS include:

- sequencing
- categorizing
- identifying patterns
- cause and effect
- researching
- brainstorming
- logic
- reasoning
- inferencing
- academic vocabulary

<p><b>Topic Opener</b>  <b>PE:</b> 1-LS1-2, 1-LS3-1, K-2-ETS1-2  <b>SEP:</b> Planning and Carrying Out Investigations*          Constructing Explanations and Designing Solutions*          Obtaining, Evaluating, and Communicating Information*  <b>DCI:</b>  <b>LS1.B</b> – Growth and Development of Organisms  <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.</li> </ul> <b>LS3.A – Inheritance of Traits</b>  <ul style="list-style-type: none"> <li>(NYSED) Some young animals are similar to, but not exactly, like their parents. Some young plants are also similar to, but not exactly, like their parents.</li> </ul> <b>CCC:</b> Patterns*  <b>*Denotes Higher Order Thinking Skill</b></p>	<p><b>Savvas</b>  <b>Highlighted labs are important to the understanding of the instructional concepts in this lesson and must be completed during Science instructional time.</b></p> <ul style="list-style-type: none"> <li><b><i>u</i>Connect Lab – Which mouse is longer?*</b></li> <li>Quest Kickoff – Find the Parents*</li> <li>Leveled Readers</li> <li>STEM Engineering Reader</li> <li>Science Song – Hi Little Turtle</li> </ul>
<p><b><u>Lesson 1- Plant and Animal Life Cycles</u></b>  <b>PE:</b> 1-LS1-1  <b>SEP:</b> Constructing Explanations and Designing Solutions*  <b>DCI:</b>  <b>LS1.B</b> – Growth and Development of Organisms  <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.</li> </ul> <b>CCC:</b> Patterns*  <b>*Denotes Higher Order Thinking Skill</b></p>	<p><b>Savvas</b>  <b>Guiding Objective</b>  <ul style="list-style-type: none"> <li>Students will observe the life cycles of some plants and animals.</li> </ul> <b>Vocabulary</b>  <ul style="list-style-type: none"> <li>life cycle</li> <li>offspring</li> </ul> <b>Connect</b>  <ul style="list-style-type: none"> <li>TE/SB p. 190</li> <li>Jumpstart Discovery*</li> </ul> <b>Investigate</b>  <ul style="list-style-type: none"> <li>TE/SB pp. 191-192</li> <li><b><i>u</i>Investigate Lab – How do plants grow and change?*</b></li> <li>Video – Life Cycles*</li> <li>Literacy Toolbox – Main Idea and Details</li> </ul> <b>Synthesize</b>  <ul style="list-style-type: none"> <li>TE/SB pp. 192-193</li> <li>Interactivity – Compare Life Cycles of Animals*</li> <li>Quest Connection</li> </ul> <b>Demonstrate</b>  <ul style="list-style-type: none"> <li>TE/SB pp.193-194</li> <li>Lesson 1 Quiz</li> <li><b>Quest Check-In Lab – How are the life cycles alike and different?</b></li> </ul> </p>

<p><b><u>Lesson 2 Observe Parents and Young</u></b>  <b>PE:</b> 1-LS3-1, K-2-ETS1-2  <b>SEP:</b> Planning and Carrying Out Investigations*          Constructing Explanations and Designing Solutions*  <b>DCI:</b>  <b>LS3.A</b> – Inheritance of Traits  <ul style="list-style-type: none"> <li>(NYSESED) Some young animals are similar to, but not exactly, like their parents. Some young plants are also similar to, but not exactly, like their parents.</li> </ul> <b>LS3.B</b> – Variation of Traits  <ul style="list-style-type: none"> <li>Individuals of the same kind of plant or animal are recognizable as similar but can also vary in many ways.</li> </ul> <b>CCC</b> – Patterns*  <b>*Denotes Higher Order Thinking Skill</b></p>	<p><b>Savvas</b>  <b>Guiding Objective</b>  <ul style="list-style-type: none"> <li>Students will understand that young plants and animals are alike, but not exactly alike their parents.</li> </ul> <b>Vocabulary</b>  <ul style="list-style-type: none"> <li>compare</li> <li>contrast</li> </ul> <b>Connect</b>  <ul style="list-style-type: none"> <li>TE/SB p. 196</li> <li>Jumpstart Discovery</li> </ul> <b>Investigate</b>  <ul style="list-style-type: none"> <li>TE/SB pp. 197-200</li> <li>Video – Observe Parents and Young*</li> <li><b>uInvestigate Lab – What do young plants look like?*</b></li> <li>Reading Check – Main Idea and Details*</li> </ul> <b>Synthesize</b>  <ul style="list-style-type: none"> <li>TE/SB pp. 201 - 203</li> <li>Interactivity – Alike and Different: Living Things*</li> <li>Quest Connection*</li> <li>Quest Check-In: Alike and Different*</li> </ul> <b>Demonstrate</b>  <ul style="list-style-type: none"> <li>TE/SB p.202</li> <li>Lesson 2 Quiz</li> </ul> </p>
<p><b><u>Lesson 3 Patterns in Animal Behavior</u></b>  <b>PE:</b> K-LS1-2  <b>SEP:</b> Constructing Explanations and Designing Solutions*          Obtaining, Evaluating, and Communicating Information*  <b>DCI:</b>  <b>LS1.B</b> – Growth and Development of Organisms  <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.</li> </ul> <b>CCC</b> – Patterns*  <b>*Denotes Higher Order Thinking Skill</b></p>	<p><b>Savvas</b>  <b>Guiding Objective</b>  <ul style="list-style-type: none"> <li>Students will describe what animals need. Students will explain how the behaviors of parents and their young help the young survive.</li> </ul> <b>Vocabulary</b>  <ul style="list-style-type: none"> <li>protect</li> <li>pattern</li> <li>behavior</li> </ul> <b>Connect</b>  <ul style="list-style-type: none"> <li>TE/SB p. 206</li> <li>Jumpstart Discovery</li> </ul> <b>Investigate</b>  <ul style="list-style-type: none"> <li>TE/SB pp.207-211</li> <li>Video – Patterns in Animal Behavior*</li> <li><b>uInvestigate Lab – How do nests protect eggs?*</b></li> <li>Quest Connection</li> <li>Connecting Concepts-Toolbox-Patterns*</li> </ul> <b>Synthesize</b>  <ul style="list-style-type: none"> <li>TE/SB pp. 212-214</li> <li>Interactivity – Animal Behaviors*</li> <li>Reading Check – Main Idea and Details</li> <li>Quest Check-In – Parents Help Young Learn</li> </ul> <b>Demonstrate</b>  <ul style="list-style-type: none"> <li>TE/SB p.213</li> <li>Lesson 3 Quiz</li> </ul> </p>

<p><b>Topic Close</b></p> <ul style="list-style-type: none"> <li>• Assessment and Remediation TE/SE pp. 218-222</li> <li>• Quest Finding p. TE/SB 216</li> </ul>	<p><b>Topic 6 Enrichment</b></p> <p><b>Topic 6 - Lesson 1 Enrichment</b> - TE p.193 - This activity extends student understanding of the lesson by having students read and draw about life cycles.  <b>Enrichment Skill - Logic</b></p> <p><b>Topic 6- Lesson 2 Enrichment</b> - TE p.199 - This activity extends student understanding of the lesson by encouraging students to compare an adult and young tree. <b>Enrichment Skill - Categorize</b></p> <p><b>Topic 6- Lesson 3 Enrichment</b> - TE p. 210 - This activity extends student understanding of the lesson by encouraging them to read text about meerkats and how they protect their young. Academic vocabulary includes protect, pup, stinger.  <b>Enrichment Skill- Academic Vocabulary</b></p>
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**Cumulative Enrichment Project- [Grade 1](#) - (Categorize, Patterns)**

Page 1: Students will look for patterns among a set of animal cards pertaining to how animals are like their young and how they are not like their young.

Page 2: Animal Cards (can be printed and cut into cards)

Page 3: Students will observe animal cards depicting behaviors and categorize each behavior as “teaching”, “feeding” or “protecting”.

Page 4: Animal behavior cards - cut out and use for p. 3

<p><b>English Language Learners (ELL) Enhancements</b></p> <p>To access <a href="#">hyperlinked</a> material, you must be logged into your BPS Google Drive</p>	<p><b>Listening</b></p> <ul style="list-style-type: none"> <li>• <b>Cross- Linguistic Practices:</b> Gives students opportunities to make connections between what they hear and their home language (For example, allow students to listen to a passage and identify cognates).</li> <li>• <b>Activating Prior Knowledge</b> Activating prior knowledge means both eliciting from students what they already know and building initial knowledge that they need in order to access upcoming content.</li> <li>• <b>Activating Prior Knowledge</b></li> <li>• <b>Visuals</b> - GIFs, pictures- will assist students in understanding what they are listening to. Use <b>visual thinking strategies</b> to set the lens for learning.</li> <li>• Video to review or introduce a topic – use <b>closed captioning</b> to help students see the words and pronunciations while they listen to the content.</li> <li>• <b>Word stretching / Vowel stretching</b> when instructing allows student to listen closely to the pronunciation of the word.</li> <li>• <b>Performance Level Descriptors</b> this document provides teachers with a description of what output they can expect from students based on earned NYSESLAT levels in the modality of listening Scroll for grade 1.</li> </ul> <p><b>Speaking</b></p> <ul style="list-style-type: none"> <li>• <b>Sentence Stems/Frames</b> - to begin a sentence - such as <i>Evolution is...</i> or <i>I think that evolution is...</i></li> <li>• <b>Academic Conversation Starters:</b> Have a visual of a list of academic sentence starters that students can refer to in a discussion.</li> <li>• <b>Choral Reading</b> - To build fluency, self-confidence and motivation with <a href="#">reading/speaking</a></li> <li>• Create <b>movement</b> to go with the word. Movement can be a motivating factor, as well as a kinesthetic tool for conceptualizing the rhythm and flow of fluent reading while triggering brain function for optimal learning</li> <li>• <b>Performance Level Descriptors</b> This document provides teachers with a description of what output they can expect from students based on earned NYSESLAT levels in the modality of speaking. Scroll for grade 1.</li> </ul>
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**Reading**

- Supplementary Text to help reinforce concepts.
- **Visual Aids** - Pictures or models to support vocabulary words and concepts
- Video to review or introduce a topic - use **closed captioning** to help students read along while they listen to the content.
- **4 Square / Frayer models** to help students gain a deeper understanding of vocabulary.
- **Highlighting** important text to assist students in answering questions after the reading.
- **Chunking**-Break reading of text into chunks or paragraphs
- **Performance Level Descriptors** this document provides teachers with a description of what output they can expect from students based on earned NYSESLAT levels in the modality of reading. Scroll for grade 1.
- **Vocabulary Morphology**- Morphology relates to the segmenting of words into affixes (prefixes and suffixes) and roots or base words, and the origins of words. Understanding that words connected by meaning can be connected by spelling can be critical to expanding a student's vocabulary

**Instructional Accommodations (depending on the student's needs)**

- **Extended time** for tests in class, projects and assignments
- **Directions read.** Broken down as necessary
- **Model** how to complete the activity in the lesson
- **Oral simplification** of directions or questions
- **Translated version** of test when available. Student may have both version English and native language version
- Use of **approved bilingual glossaries** from NYS in each subject

**Special Education Modifications**

Special Education students must have accommodations as per Individual Educational Plan (IEP)

**Instructional**

- **Pre-teach** vocabulary
- Use **picture vocabulary**
- Scaffold **Depth of Knowledge** questions
- Provide copy of notes/**notes in "cloze"** form
- Use of **Think, Pair, and Share** strategy to help process information
- **Scaffold** written assignments with the use of **graphic organizers**
- Allow for **multiple ways to respond** (verbal, written, response board)
- Provide **model of performance task**
- **Modify informational text** to fit the needs of the students
- Provide a digital or paper **interactive notebook**
- Present complex **tasks in multiple ways**
- Provide **mnemonic strategies** for scientific concepts

**Technology:**

- **Audio** reading of text
- **Text to type** functions
- **Videos** to clarify/visualize science concepts
- **Record class lecture/discussions** and make accessible to student
- **Nearpod**- interactive presentations of notes

**In Class Assessments**

- Provide **multiple options** for projects
- **Use of timer** in class
- Break all complex tasks into chunks

Grade 1 Unit 3 Life Science

<p><b>Step Up to Writing</b> Step Up to Writing materials can be found in BPS Science K-12 Schoology Folder Gr 1 Resources Gr 1 SUTW materials</p>	<ul style="list-style-type: none"><li>● Easy Two-Column Notes</li><li>● Breaking Down Definitions</li><li>● Paragraph Frame- What I Learned</li><li>● <a href="#">Performance Level Descriptors</a> this document provides teachers with a description of what output they can expect from students based on earned NYSESLAT levels in the modality of writing. Scroll for grade 1.</li></ul>
<p><b>Culturally and Linguistically Responsive Teaching (CLRT) in the Science Classroom</b></p>	<ul style="list-style-type: none"><li>● Materials, resources, and/or discussions address diverse cultural backgrounds and real-world applications</li><li>● Artifacts (posters, charts, etc.) in the science classroom are representative of the cultures of the student population</li><li>● All students are given an opportunity to engage in science discourse</li><li>● Teacher demonstrates high expectations for all students</li></ul>