



<b>Revision Date</b>	April 21, 2020
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**Department of Curriculum & Instruction**

**First Grade Science**

<b>Unit</b>	1 - 09 Investigating Physical Characteristics of Organisms / Life Cycles
<b>Time Frame</b>	5/3-6/2
<b>Big Ideas</b>	<ol style="list-style-type: none"> <li>Plants have structures (parts) with specific functions (jobs) that help them survive within their environments.</li> <li>Animals have external characteristics that help them survive within their environment.</li> </ol>
<b>Essential Questions</b>	<ol style="list-style-type: none"> <li>How does each part (structure) of a plant help the plant survive? What are their functions (jobs)?</li> <li>In what ways do the external characteristics of animals help them survive in their environment?</li> </ol>

<b>TEKS / Student Expectations</b>	<b>Skills</b>	<b>Concepts</b>
<b>TEKS 1.10A</b> Organisms and environments. The student knows that organisms resemble their parents and have structures and processes that help them survive within their environments. The student is expected to investigate how the external characteristics of an animal are related to where it lives, how it moves, and what it eats;	Investigate	<p><b>HOW EXTERNAL CHARACTERISTICS OF AN ANIMAL ARE RELATED TO ITS ENVIRONMENT</b></p> <ul style="list-style-type: none"> <li>External characteristics / relationship to environment</li> <li>Structures</li> <li>Long beak of a bird helps it reach nectar in a flower (what it eats)</li> <li>Body coverings</li> <li>Thick fur of a bear helps protect it from the cold (where it lives)</li> <li>Appendages</li> <li>Webbed feet of a duck provide movement and balance in the water (how it moves)</li> </ul> <p>Last</p>
<b>TEKS 1.10C</b> Organisms and environments. The student knows that organisms resemble their parents and have structures and processes that help them survive within their environments. The student is expected to compare ways that young animals resemble their parents	Compare	<p><b>WAYS THAT YOUNG ANIMALS RESEMBLE THEIR PARENTS</b></p> <ul style="list-style-type: none"> <li>Coloration patterns</li> <li>Limb number and structure</li> </ul> <p>Behaviors</p>
<b>TEKS 1.10D</b> Organisms and environments. The student knows that organisms resemble their parents and have structures and processes that help them survive within their environments. The student is expected to observe and record life cycles of animals such as a chicken, frog, or fish.	Observe, Record	<p><b>LIFE CYCLES OF ANIMALS</b></p> <ul style="list-style-type: none"> <li>Life cycle – sequential stages of growth and development that an organism goes through in its lifetime</li> <li>Life cycles of animals</li> <li>Chicken</li> <li>Frog</li> </ul> <p>Fish</p>



<p><b>TEKS 1.2(C)</b> The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to collect data and make observations using simple tools.</p>	<p>Collect Make</p>	<p>The student will be required to collect data and learn how to appropriately use them.</p> <p>The students will be making observations using the tools such as measuring length with nontraditional measuring devices.</p>
<p><b>TEKS 1.2(D)</b> The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to record and organize data and observations using pictures, numbers, and words.</p>	<p>Record Organize</p>	<p>Students should start learning how to record data, they can draw pictures, make tally marks, use picture graphs, use real world objects, numbers, words.</p>
<p><b>TEKS 1.3(C)</b> The student knows that information and critical thinking are used in scientific problem solving. The student is expected to describe what scientists do.</p>	<p>describe</p>	<p>They should be able to describe the actions of a good scientist that are similar to the tasks that they do in the classroom. These tasks include:</p> <ul style="list-style-type: none"> <li>• Questioning</li> <li>• Observing</li> <li>• Measuring</li> <li>• Classifying</li> <li>• Investigating</li> <li>• Predicting</li> </ul> <p>Communicating</p>
<p><b>TEKS 1.4(A)</b> The student uses age-appropriate tools and models to investigate the natural world. The student is expected to collect, record, and compare information using tools, including computers, hand lenses, primary balances, cups, bowls, magnets, collecting nets, notebooks, and safety goggles or chemical splash goggles, as appropriate; timing devices; non-standard measuring items; weather instruments such as demonstration thermometers and wind socks; and materials to support observations of habitats of organisms such as aquariums and terrariums.</p>	<p>Collect Record Compare</p>	<p>INFORMATION USING TOOLS</p> <ul style="list-style-type: none"> <li>• Computers</li> <li>• Hand lenses</li> <li>• Collecting nets</li> <li>• Notebooks</li> <li>• Materials to support observations of habitats of organisms</li> <li>• Aquariums</li> </ul> <p>Terrariums</p>

### Tier I Instructional Strategies – Classroom Instruction for All Students

Prior Content Connections

Kindergarten

K.10A – Sort plants and animals into groups based on physical characteristics such as color, size, body covering, or leaf shape

K.10B – Identify basic parts of plants and animals

**1.10 A** You could start the unit by reading [Little Red Riding Hood](#) and discussing how Red knew that the wolf wasn't her grandmother. Talk about the differences between humans and wolves.



Have the students compare how other animals are different and how they are the same. Use a table to sort them.

Animal 1 – Wolf	Body part	Animal 2 - grandma
Sharp	Teeth	Flat
Big	eyes	Squinty
Big	Ears	Small
Furry	Skin	wrinkled

Read other books about animals such as [Arthur's nose](#) and discuss how different animals have different body parts and what they use them for.

Use [Animal webcams](#) and take students on a virtual field trip. Show them different animals and their habitats and discuss how they look and what their environment looks like.

**1.10C**

Use pictures of baby animals and the parents and ask student show they know which baby goes to which parent.

Students match the parent animal to the offspring.

Discuss the students' results and focus students on the similarities between the mom and baby. Ask students how the baby and adult animals are different (for example, size or color).

Stress that even though the baby and adult animals may have some differences, the baby animal resembles the adult animals when it is born.

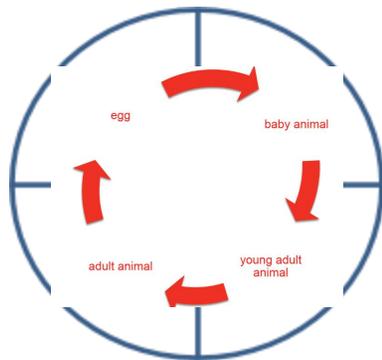
**1.10D** Suggest using life cycle posters to show how animals grow and change.



Make a game out of animal life cycles. Use cards such as these

Separate the cards, shuffle them out and give each student one card. They have to find their partners and put them in order. Let them discuss and then share it out. Discuss the similarities between the stages.

Create a paper plate life cycle. Have the students draw each stage in order clockwise around a paper plate that has been folded into quarters. Draw arrows between the steps.



## Critical Writing Prompts

1. You want to tell your mom about the animal you want. How do you describe it to her?  
You want to buy flowers for your mom for Mother's day, How do you describe the parts of the flowers to your dad so he can help you find the right ones?

## Vocabulary

Appendage – a limb or other body part attached to the body of an animal

Body covering – the material on the outside of an animal, such as feathers, fur / hair, scales, shells, skin, or exoskeleton

Botanist – a scientist who studies plants

External characteristic – a specific, visible feature on the outside of an organism

Function – what something is used for; purpose

Large

Leaf shape

Leaf, leaves

Leaves

Lives

Movement

Nutrients

Part

Sharp

Shelter

Short

Size

Small

Smooth

Stem

Survival



Part – a portion of an organism	Plant	Tall
Structure – a body part that does a certain “job” for an organism	Roots	Thick
Animal	Rough	Thin
Body		
Color		
Flower		
Fruit		

**Resources**

*\*The suggested resources are one of many ways to address the TEKS student expectation.*

[ThinkCentral textbook](#)

[STEMscopes](#)

[Animal webcams](#)