





CCPS Science Unit Plan

Grade	1st	Subject	Science	Unit #	1
Unit Name	Unit 1: Plants and Animals		Timeline	6 weeks	
How to use the Framework	<p>This Framework should be used to implement daily science instruction. The resources and instructional strategies reflected in the Framework will provide a foundation for effective implementation and student mastery of standards.</p> <p>Please see the hyperlinked abbreviation document to ensure understanding of all abbreviations used with this framework.</p> <p>CCPS Department of Science Website for access to all unit frameworks.</p>				
Unit Overview	<p>Background Information: All organisms have basic survival needs, and they can survive only in environments that meet those needs. All organisms have external parts. Plants have different parts (roots, stems, leaves, and flowers) that help them survive and grow. Animals need air, water, food and shelter. Plants require air, water, nutrients and light.</p> <p>Prerequisites: <u>Kindergarten</u> : Unit 3: Living and NonLiving (Standards - SKL.1 a/b) Unit 5 : Time Patterns & Organisms (Standards - SKL2 a/b/c)</p> <p>Throughout this unit, the teacher should:</p> <ul style="list-style-type: none"> • <i>provide</i> opportunities for students to develop models to identify parts • <i>support</i> students with refining their models of plants and animals • <i>guide</i> students as they obtain, evaluate, and communicate gathered knowledge of plants and animals • <i>support</i> student processes and skill building for generating questions • <i>encourage</i> independent learning opportunities <p>Throughout this unit, the student should:</p> <ul style="list-style-type: none"> • <i>develop/or use models</i> to describe the relationship between parts of a plant • <i>observe</i> natural plants and animals • <i>make connections</i> to plant parts and vital functions necessary for its survival • <i>ask questions</i> about the basic needs of plants and animals based on observations. • <i>connect and use</i> vocabulary terms to build core understanding <p> Science-1st-Teacher-Notes.pdf</p>				
Standards	<u>GSE</u>		<u>Science and Engineering Practices</u>		<u>Crosscutting Concepts</u>
	S1L1 : Obtain, evaluate, and communicate information about the basic needs of plants and animals.		Obtaining, Evaluating and Communicating information in K-12 builds on prior experiences and uses observations and texts to communicate new information.		Patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence.

	<p>a. Develop models to identify the parts of a plant - root, stem, leaf, and flower.</p> <p>b. Ask questions to compare and contrast the basic needs of plants (air, water, light, and nutrients) and animals (air, water, food, and shelter).</p> <p>c. Design a solution to ensure that a plant or animal has all of its needs met.</p>	<p>Constructing Explanations and Designing Solutions in K-12 builds on prior experiences and progresses to the use of evidence and ideas in constructing evidence-based accounts of natural phenomenon and designing solutions.</p>	<p>Structure and Function – The shape and stability of natural and designed objects are related to their functions.</p>
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NGSS Alignment	NGSS Alignment to Disciplinary Core Ideas
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The Phenomenon Protocol

Anchoring Phenomena	Learning Targets
<p>Watch a Kidney Bean Grow </p>	Students will design and develop models to identify the parts of a plant. – root, stem, leaf and flower
<p>What do Plants and Animals Need? </p>	The students will ask questions to compare and contrast the basic needs of plants (air, water, light and nutrients) and animals (air, water, food and water).
<p>Design an Animal Hotel </p>	The students will design a solution to ensure plants or animals have all their needs met.

Weekly Lesson Tasks

Navigation: [Week 1](#) | [Week 2](#) | [Week 3](#) | [Week 4](#) | [Week 5](#) | [Week 6](#) | [Return to the top](#) | [Additional Resources](#)

<p>Week 1 Standards Phenomenon Weekly Lessons</p>	
GSE: S1L1a.	Focused Concept: Develops model of parts of plants
Learning Target	Students will develop models to identify the parts of a plant - root, stem, leaf, and flower.

Lab Safety and Materials

- **Prior to the start of the “Plant Parts” activity, be sure to have parents sign and return the following form:**
 - Allergen Disclosure_Plant and Soil Lab Acknowledgement Form- CCPS 2024 - 2025.pdf (needed throughout the unit)
- Teachers need to conduct lab safety per the information highlighted below, *explicitly*.
- Check Infinite Campus and refer to the acknowledgement form for student allergies.
- Ensure students are wearing gloves and have Ziploc bags to collect samples.

W [General Safety Practices for the Elementary Science Classroom- TOC.docx](#)

SEP TEACHER TIP:

To support students with the Science & Engineering Practices for this week, follow the guidance in this protocol: ■ [Develop and Use Models.pdf](#)

Phenomenon: ■ [S1L1a.projectable.PNG](#)

DQ: What parts should I include when making or drawing a model of a plant?

Day 1: Opening	Day 2 : Guided Practice/ Transition	Day 3: Independent Practice	Day 4: Independent Practice	Day 5: Assessment / Summary
<p>Phenomenon Introduction : (5-7 minutes)</p> <p>Show students the phenomenon card and accompanying video:</p> <p>■ S1L1a.projectable.PNG ■ Bean Time-Lapse - 25 da...</p> <p>Use the following to introduce phenomenon:</p> <p>■ See,Think,Wonder.pdf</p> <p>Teachers will utilize the See, Think, Wonder strategy and record students’ observations and question on chart paper.</p> <p>**TEACHER NOTE: There are two inquiry tasks to complete on this day, a discussion and a Science4Us simulation. The teacher should use the classroom board to project the simulation until students are able to access chromebooks.</p>	<p>Introduce the Driving Question: (7-10 minutes) <i>What parts should I include when making or drawing a model of a plant?</i></p> <p>Have students review the driving question:</p> <p>How do parts of plants and animals help them?</p> <p>Use the strategy to support students with making connections and understanding the driving question (DQ).</p> <p>Visualizing the Driving Question</p> <p>Click here to access question words reference chart</p> <p>The process can be recorded on chart paper with the students or the teacher can complete the graphic organizer.</p> <p>Be sure to create a reference for</p>	<p>Review the Driving Question: (1-2 minutes) <i>What parts should I include when making or drawing a model of a plant?</i></p> <p>Graphic Organizer (2-3 minutes) Students will need and will use the student lab sheet for provided in their consumable book or the access to the activity sheet: ■ 01_T5_L1_uInvestigate...</p> <p>Students will need to collect plants from outside for this lesson. Send the following home and get signed prior to this day of instruction.</p> <p>■ Allergen Disclosure_Plan...</p> <p>Materials plant hand lens crayons</p>	<p>Text Annotation Strategy (35 minutes)</p> <p>Have students read and annotate the following text:</p> <ul style="list-style-type: none">● Roots● Stems and Leaves● Flowers and Fruits <p>**TEACHER NOTE: The teacher should be signed in to SAVVAS Realize to access the link above. The links will be separated by headers. However, this will be one text available to the students. Use the links above to help navigate to the text for this week.</p> <p>The text for this week’s lesson can be found at SAVAAS Realize</p> <p>The teacher should facilitate the following process. Have the students follow the text protocol facilitation directions provided in the following strategy:</p> <p>■ K-2 Text Annotation Prot...</p>	<p>Review the Phenomenon (5-7 minutes)</p> <p>Allow students to review the initial observations and questions from see, think, wonder strategy on Day 1.</p> <p>Have students review initial ideas. Ask students: <i>Have any of your ideas about the phenomenon changed? How?</i></p> <p>Have students review their initial questions. Ask students: <i>What questions generated on Day 1 can you answer, now? What are your answers to the questions?</i></p> <p>Claim-Evidence-Reasoning (20-25 minutes)</p> <p>Students will write a response to the following driving question in the CER format.</p> <p><i>What parts should I include when making or drawing a model of a plant?</i></p>

Inquiry Activity Task 1: **(5-7 minutes)**

Jumpstart Discovery:

Use Jumpstart Discovery prompt on **SAVAAS Plant Parts**

Have students view the image

■ Plants Jumpstart Page.pdf

Have students draw a plant that is growing. Tell a partner what you think your plant needs to keep growing.

****Teacher Note:**

Speaking Use the “Jumpstart Discovery!” activity to help students practice speaking skills.

Entering Have students say the name of the thing they are being asked to talk about. (plant)

Beginning Have students name one word to describe a need of plants.

Developing Have students name three words to describe the needs of plants.

Expanding Have students describe one need of plants in a complete sentence.

Bridging Have students describe three needs of plants, using complete sentences.

Inquiry Activity Task 2: **(30 minutes)**

Objective: Students will

students to have throughout the week.

****Teacher Note:** Students should not answer the driving question at this time. Students will need to collect information, data and understanding from the phenomenon strategy, inquiry activity, investigation, text or video protocol and vocabulary strategy to develop a response in the claim-evidence-reasoning format.

Claim-Evidence-Reasoning (CER)

(10-12 minutes)

Objective: Expose students to claim-evidence-reasoning (CER) student samples below to review and understand their peers' thoughts on the topic, initiating the process of developing skills for effective argumentation.

The teacher should state the following to students:

“Claim-Evidence-Reasoning or CER is a way of writing that helps students understand and explain what they learn in science investigations and science ideas.”

Review the [claim-evidence-reasoning poster](#) with students.

As a class or in student groups, provide students with this week's claim-evidence-reasoning sample.

■ 1. Basic Needs Stud Sam...

Investigation Facilitation **(30 minutes)**

SAVVAS - uInvestigate Lab - What Do Parts of the Plant Look Like?

■ 01_T5_L1_uInvestigate ...

Objective : Students will use a hand held lens to look at plant parts. They will make a drawing of what they observed.

Procedure:

1. Observe the parts of the plant. Use all of the materials. Draw a picture of each part.
2. Explain- how you think the shape of the stem helps the plant.
3. Tell about an object that people make that is like a plant stem.

****TEACHER NOTE:**

NOTE**Ensure students do not have any allergies to plants prior to collecting plants from outside for this activity. Place collected plants in separate ziploc bags.

Tell students recorded observations could be a short phrase, an entire sentence, group of sentences, or a drawing.

The teacher should actively monitor students' progress through the lesson.

The teacher should ask the following questions: *What are the parts you observe from the plant you've collected from outside? How do you think these parts help the plant grow?*

Students should complete the following student handout as they work through the text annotation protocol:

[K-2 Text Annotation Student Document \(editable\)](#)

■ K-2 Text Annotation Stu...

During the teacher-led discussion, the teacher should ask the following questions:

1. How can the roots grow in rocky soil?
2. Two plants grow side by side. One plant is droopy and limp. The other plant is healthy. What might be the explanation?
3. Why do you think roots are an important part of the plant?
4. How are seeds in damp soil different from seeds in dry soil? How are they the same?

****TEACHER NOTE:** Read and review the annotation protocol prior to providing this lesson to students. Students will need to be placed in groups or have an understanding of how the groups will change to limit time used for transitioning.

Vocabulary Strategy **(10-15 minutes)**

Vocabulary Words:

root
stem
leaf

Review the [claim-evidence-reasoning poster](#) with the students

****TEACHER NOTE:** Provide students with sentence starters by sharing on the board:

■ K-2 Claim-Evidence-Rea...

Have students write their claim-evidence-reasoning

Writing a claim

Have students develop a claim which is their answer to the driving question. Students should use all their knowledge from the phenomenon, inquiry activity, investigation, and information analysis protocol to develop an answer to the question.

Writing evidence

Students should provide observational or numerical data as their evidence from their investigation and write a short caption or brief description of the data they provide to support their claim.

Have students use the following template to write their claim-evidence-reasoning (CER)

[K-2 Student Writing Template \(editable\)](#)

[K-2 Student Writing Template \(pdf\)](#)

****TEACHER NOTE:** Have students review the student sample(s) of claim-evidence-reasoning on Day 2. Have students compare

provide concrete examples of the plants they have eaten. They will also state what they think plants need to thrive.

Science 4 Us: Plants

■ Teacher Guide_Plants M...

Access Science4Us from CLEVER portal. Follow the procedure provided in the linked teacher guide above.

Teacher Guidance for online simulation:

Initiate the online activity and complete the first Notebook prompt.

Show the animated video portion of the online activity.

Complete the second Notebook prompt.

Facilitate a conversation using the discussion prompts (and hints) that follow the second Notebook prompt.

The teacher should actively monitor students' progress through the lesson.

The teacher should ask the following questions: *What are the parts you observe from the activity? Why do the plants need these parts?*

The teacher or students should read over student sample(s) to analyze claim-evidence-reasoning protocol. Ask students to use the CER observations chart to complete the following analysis protocol:

[Claim-Evidence-Reasoning Record Observations Document](#) (google doc)

■ Claim-Evidence-Reasoni... (PDF)

1. *Identify the student's claim in the sample and have the teacher or students write their observations or questions.*

2. *Identify the student's evidence in the sample and have the teacher or students write their observations or questions.*

3. *Identify the student's reasoning in the sample and have the teacher or students write their observations or questions.*

Ask the following questions to students as they analyze the student samples:

■ Claim-Evidence-Reasoni...

****Teacher Note:** As students review the student samples, they will begin to see or read vocabulary. Begin or continue a reference chart of questions or observations about vocabulary. Students will explicitly learn vocabulary on Day 4.

Vocabulary Strategy:

Four Square

Provide students with the [graphic organizer \(editable\)](#) or [pdf handout](#), explaining its four sections: word, meaning, picture, and sentence.

Use a Think Aloud to demonstrate how to use the graphic organizer with one of the provided vocabulary words.

Allow students to work in collaborative groups. Actively monitor and facilitate small group discussions and review various artifacts (pictures, images, primary sources, charts) to build knowledge of the term.

Have students collaborate to complete the four square strategy for the other vocabulary terms.

Monitor student progress, sharing new ideas for class discussion, and help students distinguish essential from non-essential characteristics.

Allow groups to share their thinking through academic dialogue and compare their completed task with members of other groups.

their writing to those students' samples. Ask the following questions:

How are your thoughts or understanding similar to another writer on the topic? How are your thoughts or understanding different to another writer on the topic? What would you like to learn more about? Why?

Week 2

[Standards](#) | [Phenomenon](#) | [Weekly Lessons](#)

GSE: S1L1a.

Focused Concept: Function of parts of animals and plants


Learning Target:

Students will develop models to demonstrate how parts of animals help them.

Lab Safety:





 [General Safety Practices for the Elementary Science Classroom- TOC.docx](#)

SEP TEACHER TIP:

To support students with the Science & Engineering Practices for this week, follow the guidance in this protocol:  [Develop and Use Models.pdf](#)

Phenomenon: [S1L1.b Projectable](#)

DQ: How do parts of plants and animals help them?

Day 1: Opening	Day 2 : Guided Practice/ Transition	Day 3: Independent Practice	Day 4: Independent Practice	Day 5: Assessment / Summary
<p>Phenomenon Introduction : (5-7 minutes)</p> <p>Show students the phenomenon card and accompanying video:</p> <p> S1L1a.projectable.PNG</p> <p> Bean Time-Lapse - 25 da...</p> <p>Use the following to introduce phenomenon:</p> <p> See,Think,Wonder.pdf</p> <p>Teachers will utilize the See, Think, Wonder strategy and record students' answers on chart paper.</p> <p>Extend: Ask students to look at their models and consider their thinking recorded from last week.</p> <p><i>Is there anything they would</i></p>	<p>Introduce the Driving Question: (7 - 10 minutes)</p> <p>Have students review the driving question:</p> <p><i>How do parts of plants and animals help them?</i></p> <p>Use the strategy to support students with making connections and understanding the driving question (DQ).</p> <p>Visualizing the Driving Question</p> <p>Click here to access question words reference chart</p> <p>The process can be recorded on chart paper with the students or the teacher can complete the graphic organizer.</p>	<p>Review the Driving Question: (1-2 minutes)</p> <p><i>How do parts of plants and animals help them?</i></p> <p>Graphic Organizer (2-3 minutes to access)</p> <p>Students will need and use the student lab sheet for provided in their consumable book or the access to the activity sheet:</p> <p> 01_T5_L2_uInvestigate_L...</p> <p>Materials</p> <p>Styrofoam ball, tape, pipe cleaners, boxes or tubes with different size openings</p> <p>**TEACHER NOTE: Remind students that designing and building requires a lot of patience and time.</p> <p>Investigation Facilitation</p>	<p>Text Annotation Strategy (35 minutes)</p> <p>Have students read and annotate the following text:</p> <ul style="list-style-type: none"> • How Animals Move • Body Coverings and Ways of Breathing • Animal Senses and Responses <p>**TEACHER NOTE: The teacher should be signed in to SAVVAS Realize to access the link above. The links will be separated by headers. However, this will be one text available to the students. Use the links above to help navigate to the text for this week.</p>	<p>Review the Phenomenon (5-7 minutes)</p> <p>Allow students to review the initial observations and questions from see, think, wonder strategy on Day 1.</p> <p>Have students review initial ideas. Ask students: <i>Have any of your ideas about the phenomenon changed? How?</i></p> <p>Have students review their initial questions. Ask students: <i>What questions generated on Day 1 can you answer, now? What are your answers to the questions?</i></p> <p>Claim-Evidence-Reasoning (20-25 minutes)</p> <p>Students will write a response to the following driving question</p>

change, improve, or add to their original idea?

**** TEACHER NOTE:** There are two inquiry tasks to complete on this day, a discussion and a Science4Us simulation. The teacher should use the classroom board to project the simulation until students are able to access chromebooks.

Inquiry Activity Task 1: (5-7 minutes)

Jumpstart Discovery:

Use Jumpstart Discovery prompt on **SAVAAS Animal Part**

****TEACHER NOTE**

Teachers should follow facilitation instructions and also use **ELD Support Activity :Animal Part (SAVAAS T.E)**

Entering: Ask students to name the animal shown.

Beginning: Have students identify the parts of the animal that are shown.

Developing: Ask students to make a table with two columns. Have them write down the names of the animal parts in the first column with one animal part per row. Have them describe the function of each part in the second column using a few words or a small sketch.

Expanding: Invite students to share their tables with each

Be sure to create a reference for students to have throughout the week.

****TEACHER NOTE**

Students should not answer the driving question at this time. Students will need to collect information, data and understanding from the phenomenon strategy, inquiry activity, investigation, text or video protocol and vocabulary strategy to develop a response in the claim-evidence-reasoning format.

(3-5 teachers and students should focus on developing claim, evidence, and reasoning)

Claim-Evidence-Reasoning (CER)

(10 - 12 minutes)

Objective: Expose students to claim-evidence-reasoning (CER) student samples below to review and understand their peers' thoughts on the topic, initiating the process of developing skills for effective argumentation.

The teacher should state the following to students:

“Claim-Evidence-Reasoning or CER is a way of writing that helps students understand and explain what they learn in science investigations and science ideas.”

Review the [claim-evidence-reasoning poster](#) with students.

(30 minutes)

Investigate Lab: How do whiskers help a cat? (SAVAAS Animal Part- T.E.)

Students will follow the procedure provided in the lab.

Objective: Students will make and test a model of cat whiskers.

Lab Instructions:

1. Use the materials. Make a model of the head and whiskers of a cat.
2. Make a plan. Test how whiskers help a cat get through openings.
3. Test your model. Record your data
4. Evaluate your Design- Compare your observations with the observations from another group. Tell how the shape of the whiskers helps them give information to the cat.

The teacher should actively monitor students' progress through the lesson.

The teacher should ask the following questions: *How are the cat's whiskers helpful? What is the structure of the cat's whiskers?*

The text for this week's lesson can be found in SAVVAS Realize

The teacher should facilitate the following process. Have the students follow the text protocol facilitation directions provided in the following strategy:

■ K-2 Text Annotation P...

Students should complete the following student handout as they work through the text annotation protocol:

[K-2 Text Annotation Student Document \(editable\)](#)

■ K-2 Text Annotation S...

During the teacher-led discussion, the teacher should ask the following questions:

1. What are some ways animals move?
2. How do fins help fish?
3. How are bird wings and fish fins alike and different?
4. How does the body covering of an animal help them?

****TEACHER NOTE:** Read and review the annotation protocol prior to providing this lesson to students. Students will need to be placed in groups or have an understanding of how the groups will change to limit time used for transitioning.

Vocabulary Strategy

in the CER format.

How do parts of plants and animals help them?

Review the [claim-evidence-reasoning poster](#) with the students

****TEACHER NOTE:** Provide students with sentence starters by sharing on the board:

■ K-2 Claim-Evidence-Rea...

Have students write their claim-evidence-reasoning

Writing a claim

Have students develop a claim which is their answer to the driving question. Students should use all their knowledge from the phenomenon, inquiry activity, investigation, and information analysis protocol to develop an answer to the question.

Writing evidence

Students should provide observational or numerical data as their evidence from their investigation and write a short caption or brief description of the data they provide to support their claim.

Have students use the following template to write their claim-evidence-reasoning (CER)

[K-2 Student Writing Template \(editable\)](#)

[K-2 Student Writing Template \(pdf\)](#)

other.

Bridging: Ask students to complete the following sentence for each animal part *A leopard's (eyes/ paws/ legs/ whiskers/ nose/ mouth) are useful because.....*

Inquiry Activity Task 2: (30 minutes)

Explore Animal Parts - ...

Access Science4Us from CLEVER portal. Follow the teacher facilitation instructions provided in the teacher guide linked above.

Objective: Students will recognize that animals are made up of different parts.

If students have access to chromebooks, allow students to play the online activity.

Ask questions to reveal student knowledge and understanding during game play.

Identify and pose the questions most appropriate for your students:

Why did you choose to design that type of animal? For the bug, will the type of legs you choose affect how the bug moves from place to place? For the bird, do you think the type of beak it has will affect the kinds of food it would like to eat? For the cat, do you think the type of ears you select would

As a class or in student groups, provide students with this week's claim- evidence-reasoning sample.

2. Basic Needs Stud Samp...

The teacher or students should read over student sample(s) to analyze claim-evidence-reasoning protocol. Ask students to use the CER observations chart to complete the following analysis protocol:

[Claim-Evidence-Reasoning Record Observations Document](#) (google doc)

Claim-Evidence-Reasonin... (PDF)

1. Identify the student's claim in the sample and have the teacher or students write their observations or questions.

2. Identify the student's evidence in the sample and have the teacher or students write their observations or questions.

3. Identify the student's reasoning in the sample and have the teacher or students write their observations or questions.

Ask the following questions to students as they analyze the student samples:

Claim-Evidence-Reasonin...

****TEACHER NOTE** As students review the student samples, they

(10-15 minutes)

Vocabulary Words:

*gills
scales
legs
arms
mouth*

Vocabulary Strategy:

Four Square

Provide students with the [graphic organizer \(editable\)](#) or [pdf handout](#), explaining its four sections: word, meaning, picture, and sentence.

Use a Think Aloud to demonstrate how to use the graphic organizer with one of the provided vocabulary words.

Allow students to work in collaborative groups. Actively monitor and facilitate small group discussions and review various artifacts (pictures, images, primary sources, charts) to build knowledge of the term.

Have students collaborate to complete the four square strategy for the other vocabulary terms.

Monitor student progress, sharing new ideas for class discussion, and help students distinguish essential from non-essential characteristics.

Allow groups to share their thinking through academic dialogue and compare their

****TEACHER NOTE:** Have students review the student sample(s) of claim-evidence-reasoning on Day 2. Have students compare their writing to those students' samples. Ask the following questions:

How are your thoughts or understanding similar to another writer on the topic? How are your thoughts or understanding different to another writer on the topic? What would you like to learn more about? Why?

affect how well the cat would hear? For the snake, which color skin would help it hide well in the grass? Why? For the frog, do you think the type of feet would make your frog a better swimmer?

Ask questions to promote student interest and curiosity following game interaction.

will begin to see or read vocabulary. Begin or continue a reference chart of questions or observations about vocabulary. Students will explicitly learn vocabulary on Day 4.

completed task with members of other groups.

Week 3

[Standards](#) | [Phenomenon](#) | [Weekly Lessons](#)

GSE: S1L1b.

Focused Concept: Learning from plants and animals.

Learning Target

I can ask questions to compare and contrast the basic needs of plants (air, water, light, and nutrients) and animals (air, water, food, and shelter).

Lab Safety:

[W General Safety Practices for the Elementary Science Classroom- TOC.docx](#)

SEP TEACHER TIP:

To support students with the Science & Engineering Practices for this week, follow the guidance in this protocol: [Ask Questions and Define Problems.pdf](#)

Phenomenon: [S1L1.b Projectable](#)

DQ: How do the parts of plants and animals help them?

Day 1: Opening

Day 2 : Guided Practice/
Transition

Day 3: Independent Practice

Day 4: Independent Practice

Day 5: Assessment / Summary

Phenomenon Introduction :
(7-10 minutes)

Show students the phenomenon card and accompanying video:
[S1L1.b Projectable](#)

- [Corn time-lapse](#)
- [Hermit Crabs - Pets in t...](#)

Use the [see, think wonder](#)

Introduce the Driving Question:
(7-10 minutes)

Have students review the driving questions:

How do the parts of plants and animals help them?

Use the strategy to support students with making connections and understanding the driving

Review the Driving Question:
(1-2 minutes)

How can people learn from plants and animals?

Graphic Organizer

(2-3 minutes to access)
Students will need and will use the student lab sheet for provided in their consumable book or the access to the activity sheet:

Text Annotation Strategy
(35 minutes)

Have students read and annotate the following text:

- [People Mimic Nature](#)
- [People Mimic Nature \(cont.\)](#)

****TEACHER NOTE:** The teacher should be signed in to SAVVAS Realize to access the

Review the Phenomenon
(5-7 minutes)

Allow students to review the initial observations and questions from see, think, wonder strategy on Day 1.

Have students review initial ideas. Ask students: *Have any of your ideas about the phenomenon changed? How?*

[strategy](#) to guide student thinking.

Provide students opportunities to share observations and develop questions. The teacher should record students' observations on chart paper and refer back to initial student ideas throughout the week.

Inquiry Activity Task 1: (5-7 minutes) **Jumpstart Discovery:**

Use Jumpstart Discovery prompt on **SAVAAS People Learn from Animal and Plant Parts**

Jumpstart - People Lear...

****TEACHER NOTE**

Follow facilitation instructions and also use **ELD Support Activity: People Learn from Animal and Plant Parts (SAVAAS T.E)**

Entering: Ask students to point to and name the plant and animals in the picture.
Beginning: Have them name each of the plant parts and each of the animal parts.
Developing: Have them identify and explain how one of the plant parts, and one of the animal parts is helping the plant or animal live.
Expanding: Ask students to predict what would happen to the oak tree if there were no squirrels that lived in or near

question (DQ).

Visualizing the Driving Question

Click here to access [question words reference chart](#)

The process can be recorded on chart paper with the students or the teacher can complete the graphic organizer.

Be sure to create a reference for students to have throughout the week.

****TEACHER NOTE**

Students should not answer the driving question at this time. Students will need to collect information, data and understanding from the phenomenon strategy, inquiry activity, investigation, text or video protocol and vocabulary strategy to develop a response in the claim-evidence-reasoning format.

Claim-Evidence-Reasoning (CER) (10-12 minutes)

Objective: Expose students to claim-evidence-reasoning (CER) student samples below to review and understand their peers' thoughts on the topic, initiating the process of developing skills for effective argumentation.

The teacher should state the following to students:

“Claim-Evidence-Reasoning or CER is a way of writing that helps students understand and explain

01_T5_L3_uInvestigate...

Materials

Acorn
Hand Lens
Small Hammer

****TEACHER NOTE:**

Encourage students to think of how the acorn protects the seed.

Investigation Facilitation (30 minutes)

uInvestigate Lab: What can people learn from an acorn shell? (SAVAAS People Learn from Animal and Plant Parts-T.E.)

Students will follow the procedure provided in the lab.

Objective: Students investigate an acorn to discover how acorns help protect a tree's seed.

Lab Instructions

1. Use all the materials. Make a plan to break the shell of the acorn. Show your plan to your teacher.
2. Conduct your investigation. Record your observations.
3. Analyze and Interpret Data- Explain how the hard shell helps the acorn.

The teacher should actively monitor students' progress through the lesson.

The teacher should ask the following questions: *How does the hard shell of the acorn help*

link above. Headers will separate the links. However, this will be one text available to the students. Use the links above to help navigate to the text for this week.

The teacher should facilitate the following process. Have the students follow the text protocol facilitation directions provided in the following strategy:

K-2 Text Annotation Prot...

Students should complete the following student handout as they work through the text annotation protocol:

[K-2 Text Annotation Student Document \(editable\)](#)

K-2 Text Annotation Stu...

During the teacher-led discussion, the teacher should ask the following questions:

1. What are some examples of how people may have mimic, or copied, plants and animals?
2. Do you think people will ever stop getting ideas from other living things? Why or why not?

****TEACHER NOTE:** Read and review the annotation protocol prior to providing this lesson to students. Students will need to be placed in groups or have an understanding of how the groups will change to limit time used for transitioning.

Have students review their initial questions. Ask students: *What questions generated on Day 1 can you answer, now? What are your answers to the questions?*

Assessment for Learning: (20 minutes)

Have students complete the following assessment to conclude this week's lesson.

SAVVAS Topic 5 Lesson 3: People Learn from Plants and Animals

ELS19_NA_01_T5_L3...

****TEACHER NOTE:** The teacher may need to facilitate or read the questions for students to perform on quiz to best ability.

it.

Bridging: Lead a class discussion of the question, *Do trees help the squirrels, or do squirrels help the trees?*

Help students understand that the oak trees and the squirrels need each other in nature, all plants and animals depend on each other.

Inquiry Activity Task 2:
(25 minutes)

Mystery Science : Where do animals live?

Accompanying video:
[Nature Nuggets : Animal Homes](#)

Teachers and students should discuss the following:

What animals did you see in the video?
Where do the animals live?
How do you know?
If the animals could talk, what would you ask them?

Have students draw animal homes using the following:

Animals home_Myster...

Allow students to share and discuss their animal homes with a peer in the classroom. Ask students to compare and contrast the homes they've drawn.

what they learn in science investigations and science ideas.”

Review the [claim-evidence-reasoning poster](#) with students.

As a class or in student groups, provide students with this week's claim- evidence-reasoning sample.

3. Basic Needs Stud Sampl...

The teacher or students should read over student sample(s) to analyze claim-evidence-reasoning protocol. Ask students to use the CER observations chart to complete the following analysis protocol:

[Claim-Evidence-Reasoning Record Observations Document](#)
(google doc)

Claim-Evidence-Reasonin...
(PDF)

1. *Identify the student's claim in the sample and have the teacher or students write their observations or questions.*
2. *Identify the student's evidence in the sample and have the teacher or students write their observations or questions.*
3. *Identify the student's reasoning in the sample and have the teacher or students write their observations or questions.*

Ask the following questions to students as they analyze the student samples:

the acorn? Do all seeds have a tough shell? Why or why not?

Vocabulary Strategy
(10-15 minutes)

Vocabulary Words:

mimic
shelter
homes
protect

Vocabulary Strategy:

Four Square

Provide students with the [graphic organizer \(editable\)](#) or [pdf handout](#), explaining its four sections: word, meaning, picture, and sentence.

Use a Think Aloud to demonstrate how to use the graphic organizer with one of the provided vocabulary words.

Allow students to work in collaborative groups. Actively monitor and facilitate small group discussions and review various artifacts (pictures, images, primary sources, charts) to build knowledge of the term.

Have students collaborate to complete the four square strategy for the other vocabulary terms.

Monitor student progress, sharing new ideas for class discussion, and help students distinguish essential from non-essential characteristics.

Allow groups to share their thinking through academic dialogue and compare their completed task with members of other groups.

Claim-Evidence-Reasonin...

****TEACHER NOTE** As students review the student samples, they will begin to see or read vocabulary. Begin or continue a reference chart of questions or observations about vocabulary. Students will explicitly learn vocabulary on Day 4.

Week 4

[Standards](#) | [Phenomenon](#) | [Weekly Lessons](#)

GSE: S1L1c.

Focused Concept: Living Things in their Environment

Learning Target:

Students will design a solution to ensure that a plant or animal has all of its needs met.

Lab Safety:

[General Safety Practices for the Elementary Science Classroom- TOC.docx](#)

SEP TEACHER TIP:

To support students with the Science & Engineering Practices for this week, follow the guidance in this protocol: [Develop and Use Models.pdf](#)

Phenomenon: [S1L1c.projectable.PNG](#)

DQ: What do plants and animals need in their environment to live?

Day 1: Opening

Day 2 : Guided Practice/
Transition

Day 3: Independent Practice

Day 4: Independent Practice

Day 5: Assessment / Summary

Phenomenon Introduction :

Show students the phenomenon card:

[S1L1c.projectable.PNG](#)

Use the [see, think wonder strategy](#) to guide student thinking.

Provide students opportunities to share observations and

Introduce the Driving Question:

(7-10 minutes)

Have students review the driving question:

What do plants and animals need in their environment to live?

Use the strategy to support students with making

Review the Driving Question:

(1-2 minutes)

What do plants and animals need in their environment to live?

Graphic Organizer

(2-3 minutes)

Students will need and will use the student lab sheet for provided in their consumable book or the access to the activity sheet:

Text Annotation Strategy

(35 minutes)

Have students read and annotate the following text:

- [Environments](#)
- [Sensing Environments](#)
- [Land and Water Environments](#)

****TEACHER NOTE:** The teacher should be signed in to

Review the Phenomenon

(5-7 minutes)

Allow students to review the initial observations and questions from see, think, wonder strategy on Day 1.

Have students review initial ideas. Ask students: *Have any of your ideas about the phenomenon changed? How?*

develop questions. The teacher should record students' observations on chart paper and refer back to initial student ideas throughout the week.

Inquiry Activity

Jumpstart Discovery:

Use Jumpstart Discovery prompt on **SAVAAS Where Animals and Plants Live**

Teachers should follow facilitation instructions and also use **ELD Support Activity (SAVAAS T.E)**

Entering: Have students write 4-5 words that describe what they see in the photo.

Beginning: Ask students to list some of the plants and animals they see in the photo.

Developing: Ask students to list some of the plants and animals they see in the photo.

Expanding: Tell students to write down one or two words next to each plant and animal that describes how it is able to live in the desert.

Bridging: Have students choose one of the living things from the list. Tell them to use it to complete a sentence, "I can tell the (name of plant or animal) lives in the desert because....."

Inquiry Activity Task 2:

Plant Module 1 Growin...
Talking Science (K, 1, 2)

Objective: Students will know the needs and characteristics of plants, including their basic life

connections and understanding the driving question (DQ).

[Visualizing the Driving Question](#)

Click here to access [question words reference chart](#)

The process can be recorded on chart paper with the students or the teacher can complete the graphic organizer.

Be sure to create a reference for students to have throughout the week.

****TEACHER NOTE:** Students should not answer the driving question at this time. Students will need to collect information, data and understanding from the phenomenon strategy, inquiry activity, investigation, text or video protocol and vocabulary strategy to develop a response in the claim-evidence-reasoning format.

Claim-Evidence-Reasoning (CER) (10-12 minutes)

Objective: Expose students to claim-evidence-reasoning (CER) student samples below to review and understand their peers' thoughts on the topic, initiating the process of developing skills for effective argumentation.

The teacher should state the following to students:

01_T5_L4_uInvestigate...

Materials

Wax Paper
String
paper clips
container with water
scissors

****TEACHER NOTE:** Explain to students scientists build models to help answer a question and construct an explanation.

Investigation Facilitation (30 minutes)

uInvestigate Lab: What Happens to a Water Plant out of water? (SAVAAS Where Animals and Plants Live-T.E.)

01_T5_L4_uInvestigate...

Students will follow the procedure provided in the lab.

Objective: Students will plan to test if a water plant could live in a different environment.

Lab Instructions:

1. Use the materials to build a model of a plant that lives in water.
2. Make a plan to investigate what would happen if the water plant was on land.
3. Record your observations.
4. Analyze and Interpret Data- What happened to your model water plant when it was on

SAVVAS Realize to access the link above. Headers will separate the links. However, this will be one text available to the students. Use the links above to help navigate to the text for this week.

The teacher should facilitate the following process. Have the students follow the text protocol facilitation directions provided in the following strategy:

K-2 Text Annotation Prot...

Students should complete the following student handout as they work through the text annotation protocol:

[K-2 Text Annotation Student Document \(editable\)](#)

K-2 Text Annotation Stu...

During the teacher-led discussion, the teacher should ask the following questions:

1. Based on the reading, do you think you can find living and nonliving things in the same environment? Why?
2. What would be a result if you remove some of the nonliving things from an environment?
3. You observe that the environment has many living things in it. What can you conclude?

****TEACHER NOTE:** Read and review the annotation protocol prior to providing this lesson to

Have students review their initial questions. Ask students: *What questions generated on Day 1 can you answer, now? What are your answers to the questions?*

Claim-Evidence-Reasoning (20-25 minutes)

Students will write a response to the following driving question in the CER format.

What do plants and animals need in their environment to live?

Review the [claim-evidence-reasoning poster](#) with the students

****TEACHER NOTE:** Provide students with sentence starters by sharing on the board:

K-2 Claim-Evidence-Rea...

Have students write their claim-evidence-reasoning

Writing a claim

Have students develop a claim which is their answer to the driving question. Students should use all their knowledge from the phenomenon, inquiry activity, investigation, and information analysis protocol to develop an answer to the question.

Writing evidence

Students should provide observational or numerical data as their evidence from their investigation and write a short caption or brief description of

cycle.

****TEACHER NOTE** Students **do not need to learn life cycle at this time. This is a second grade standard.** The students should focus on the basic needs of plants for this unit.

Review the content from the previous sessions: examples of plants and their needs

Introduce the Take a Note Elaborate online activity and identify the objective.

Students play the Take a Note online activity.

Ask questions to encourage students to communicate understanding following completion of the online. Take a Note activity.

The teacher should actively monitor students' progress through the lesson.

The teacher should ask the following questions: *What does a plant need to grow? What are some things humans can do to help a plant grow?*

“Claim-Evidence-Reasoning or CER is a way of writing that helps students understand and explain what they learn in science investigations and science ideas.”

Review the [claim-evidence-reasoning poster](#) with students.

As a class or in student groups, provide students with this week’s claim-evidence-reasoning sample.

■ [4. Basic Needs Stud Sam...](#)

The teacher or students should read over student sample(s) to analyze claim-evidence-reasoning protocol. Ask students to use the CER observations chart to complete the following analysis protocol:

[Claim-Evidence-Reasoning Record Observations Document](#) (google doc)

■ [Claim-Evidence-Reasoni...](#) (PDF)

1. *Identify the student's claim in the sample and have the teacher or students write their observations or questions.*

2. *Identify the student's evidence in the sample and have the teacher or students write their observations or questions.*

3. *Identify the student's reasoning in the sample and have the teacher or students*

land? Tell a partner
5. Draw Conclusions- Can the water plant live on land? Tell a partner.

The teacher should actively monitor students' progress through the lesson.

The teacher should ask the following questions: *Can plants live on land without water? Why or why not? What happened to your model water plant when it was on land? What are some other ways plants can get water?*

students. Students will need to be placed in groups or have an understanding of how the groups will change to limit time used for transitioning.

Vocabulary Strategy (10-15 minutes)

Vocabulary Words:
environment needs

Vocabulary Strategy:
Four Square

Provide students with the [graphic organizer \(editable\)](#) or [pdf handout](#), explaining its four sections: word, meaning, picture, and sentence.

Use a Think Aloud to demonstrate how to use the graphic organizer with one of the provided vocabulary words.

Allow students to work in collaborative groups. Actively monitor and facilitate small group discussions and review various artifacts (pictures, images, primary sources, charts) to build knowledge of the term.

Have students collaborate to complete the four square strategy for the other vocabulary terms.

Monitor student progress, sharing new ideas for class discussion, and help students distinguish essential from non-essential characteristics.

the data they provide to support their claim.

Have students use the following template to write their claim-evidence-reasoning (CER)
[K-2 Student Writing Template \(editable\)](#)
[K-2 Student Writing Template \(pdf\)](#)

****TEACHER NOTE:** Have students review the student sample(s) of claim-evidence-reasoning on Day 2. Have students compare their writing to those students' samples. Ask the following questions:

*How are your thoughts or understanding similar to another writer on the topic?
How are your thoughts or understanding different to another writer on the topic?
What would you like to learn more about? Why?*

write their observations or questions.

Ask the following questions to students as they analyze the student samples:

■ Claim-Evidence-Reasoni...

****Teacher Note:** As students review the student samples, they will begin to see or read vocabulary. Begin or continue a reference chart of questions or observations about vocabulary. Students will explicitly learn vocabulary on Day 4.

Allow groups to share their thinking through academic dialogue and compare their completed task with members of other groups.

Week 5

[Standards](#) | [Phenomenon](#) | [Weekly Lessons](#)

GSE: S1L1 a. b. c.

Focused Concept: Relationship between plant structures and their survival.

Learning Target:

**I can use observations to examine plant and animal structures.
I can carry out an investigation to determine the relationship between plant and animal structures and their survival.**

Lab Safety:

W [General Safety Practices for the Elementary Science Classroom- TOC.docx](#)

SEP TEACHER TIP:

To support students with the Science & Engineering Practices for this week, follow the guidance in this protocol: ■ [Develop and Use Models.pdf](#)
To support students with the Science & Engineering Practices for this week, follow the guidance in this protocol: ■ [Ask Questions and Define Problems.pdf](#)

Phenomenon: [Why Don't Trees Blow in the Wind](#)

DQ: What do plants and animals need in their environment to live?

Day 1: Opening	Day 2 : Guided Practice/ Transition	Day 3: Independent Practice	Day 4: Independent Practice	Day 5: Assessment / Summary
Anchoring Phenomenon: (7-10 minutes)	Introduce the Driving Question: (7-10 minutes)	Review the Driving Question: (1-2 minutes)	Text Annotation Strategy (35 minutes)	Review the Phenomenon (5-7 minutes)

Show students the phenomenon card and accompanying video: [SIL1.b Projectable](#)

- ▶ **Corn time-lapse**
- ▶ **Hermit Crabs - Pets in th...**

Use the [see, think wonder strategy](#) to guide student thinking.

Provide students opportunities to share observations and develop questions. The teacher should record students' observations on chart paper and refer back to initial student ideas throughout the week.

Extend: Ask students to look at their models and consider their thinking recorded from last week.

Is there anything they would change, improve, or add to their original idea?

**** TEACHER NOTE:** There are two inquiry tasks to complete on this day, a discussion and a Science4Us simulation. The teacher should use the classroom board to project the simulation until students are able to access chromebooks.

Inquiry Activity Task 1:

Mystery Science [Why Don't Trees Blow in the Wind?](#) (Hands - On Activity)

(Teacher Preparation Instructions)

- ▶ **Why don't trees blow do...**

Follow the teacher's preparation

Have students review the driving question:

What do plants and animals need in their environment to live?

Use the strategy to support students with making connections and understanding the driving question (DQ).

[Visualizing the Driving Question](#)

Click here to access [question words reference chart](#)

The process can be recorded on chart paper with the students or the teacher can complete the graphic organizer.

Be sure to create a reference for students to have throughout the week.

****Teacher Note:** Students should not answer the driving question at this time. Students will need to collect information, data and understanding from the phenomenon strategy, inquiry activity, investigation, text or video protocol and vocabulary strategy to develop a response in the claim-evidence-reasoning format.

Claim-Evidence-Reasoning (CER) (10-12 minutes)

Objective: Expose students to claim-evidence-reasoning (CER) student samples below to

What do plants and animals need in their environment to live?

Graphic Organizer (2-3 minutes to access)

- ▶ MS Animal Superpower ...

Materials

Black Beans
Dixie Cups
Different Color Straws
Elbow Macaroni
Masking Tape
Paper Cups

Investigation Facilitation (30 minutes)

Mystery Science: [Why do birds have beaks?](#) (Exploration)

Lab Instructions

- ▶ MS Animal Superpowers...

****TEACHER NOTE:** Students carry out an investigation to determine the relationship between the shape of different bird beaks and the food each bird eats. In the activity, Find the Best Beak, students experiment with long pointy beaks that are great for picking up seeds and wide flat beaks that are good for scooping. They discover that different beaks are best for different kinds of food.

The teacher should actively monitor students' progress through the lesson.

The teacher should ask the

Have students listen to the Mystery Science read and annotate the following text: ["What do Sunflowers do when You're Not Looking?"](#)

****TEACHER NOTE:** As you read with your students read through **Stop & Talk and Get Up & Move**

Encourage students to take notes, draw pictures, highlight, underline, circle and/or box key phrases, vocabulary using the [provided graphic organizer](#).

▶ Mystery Science - What ...

The teacher should facilitate the following process. Have the students follow the text protocol facilitation directions provided in the following strategy:

▶ K-2 Text Annotation Prot...

Students should complete the following student handout as they work through the text annotation protocol:

[K-2 Text Annotation Student Document \(editable\)](#)

▶ K-2 Text Annotation Stu...

During the teacher-led discussion, the teacher should ask the following questions:

1. Do you think flowers could grow in the shade? Why or why not? How could you find out?
2. What differences could there be when growing

Allow students to review the initial observations and questions from see, think, wonder strategy on Day 1.

Have students review initial ideas. Ask students: *Have any of your ideas about the phenomenon changed? How?*

Have students review their initial questions. Ask students: *What questions generated on Day 1 can you answer, now? What are your answers to the questions?*

Claim-Evidence-Reasoning (20-25 minutes)

Students will write a response to the following driving question in the CER format.

What do plants and animals need in their environment to live?

Review the [claim-evidence-reasoning poster](#) with the students

****TEACHER NOTE:** Provide students with sentence starters by sharing on the board:

▶ K-2 Claim-Evidence-Rea...

Have students write their claim-evidence-reasoning

Writing a claim

Have students develop a claim which is their answer to the driving question, claim. Students should use all their knowledge from the phenomenon, inquiry activity, investigation, and information

instructions. Facilitation instructions are provided above. Be sure to review prior to the day of instruction.

Student Materials

- **Mystery Science - Why d...**
- **Mystery Science - Why d...**

The teacher should actively monitor student's progress throughout the lesson.

review and understand their peers' thoughts on the topic, initiating the process of developing skills for effective argumentation.

The teacher should state the following to students:

“Claim-Evidence-Reasoning or CER is a way of writing that helps students understand and explain what they learn in science investigations and science ideas.”

Review the [claim-evidence-reasoning poster](#) with students.

As a class or in student groups, provide students with this week's claim-evidence-reasoning sample.

[Use a student sample developed in class from one of the previous week's DAY 5](#)

The teacher or students should read over student sample(s) to analyze claim-evidence-reasoning protocol. Ask students to use the CER observations chart to complete the following analysis protocol:

[Claim-Evidence-Reasoning Record Observations Document](#) (google doc)

■ **Claim-Evidence-Reasoni...** (PDF)

1. *Identify the student's claim in the sample and have the teacher*

following questions: *Why do birds have different beaks? How do beaks help birds?*

a flower in the shade compared to growing a flower in the sun?

****TEACHER NOTE:** Read and review the annotation protocol prior to providing this lesson to students. Students will need to be placed in groups or have an understanding of how the groups will change to limit time used for transitioning.

Vocabulary Strategy (35 minutes)

Vocabulary Words:

seed
investigation

Vocabulary Strategy:

Four Square

Provide students with the [graphic organizer \(editable\)](#) or [pdf handout](#), explaining its four sections: word, meaning, picture, and sentence.

Use a Think Aloud to demonstrate how to use the graphic organizer with one of the provided vocabulary words.

Allow students to work in collaborative groups. Actively monitor and facilitate small group discussions and review various artifacts (pictures, images, primary sources, charts) to build knowledge of the term.

Have students collaborate to complete the four square strategy for the other vocabulary terms.

analysis protocol to develop an answer to the question.

Writing evidence

Students should provide observational or numerical data as their evidence from their investigation and write a short caption or brief description of the data they provide to support their claim.

Have students use the following template to write their claim-evidence-reasoning (CER)

[K-2 Student Writing Template \(editable\)](#)

[K-2 Student Writing Template \(pdf\)](#)

****TEACHER NOTE:** Have students review the student sample(s) of claim-evidence on Day 2. Have students compare their writing to those students' samples. Ask the following questions:

How are your thoughts or understanding similar to another writer on the topic?
How are your thoughts or understanding different to another writer on the topic?
What would you like to learn more about? Why?

or students write their observations or questions.

2. Identify the student's evidence in the sample and have the teacher or students write their observations or questions.

3. Identify the student's reasoning in the sample and have the teacher or students write their observations or questions.

Ask the following questions to students as they analyze the student samples:

■ Claim-Evidence-Reasoni...

****Teacher Note:** As students review the student samples, they will begin to see or read vocabulary. Begin or continue a reference chart of questions or observations about vocabulary. Students will explicitly learn vocabulary on Day 4.

Monitor student progress, sharing new ideas for class discussion, and help students distinguish essential from non-essential characteristics.

Allow groups to share their thinking through academic dialogue and compare their completed task with members of other groups.

Week 6

[Standards](#) | [Phenomenon](#) | [Weekly Lessons](#)

GSE: S1L1 a. b. c.

Focused Concept: Explain parts of plants/animals and how they help.

Learning Target:

I can demonstrate and explain how parts of plants and animals help them.








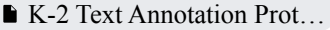


Lab Safety:

■ General Safety Practices for the Elementary Science Classroom- TOC.docx

SEP TEACHER TIP:

To support students with the Science & Engineering Practices for this week, follow the guidance in this protocol: ■ Develop and Use Models.pdf

To support students with the Science & Engineering Practices for this week, follow the guidance in this protocol: ■ Ask Questions and Define Problems.pdf

Phenomenon: 				DQ: How can we ensure plants and animals have all that they need?
Day 1: Opening	Day 2 : Guided Practice/ Transition	Day 3: Independent Practice	Day 4: Independent Practice	Day 5: Assessment / Summary
<p>Anchoring Phenomenon:</p> <p></p> <p>Review: Ask students to look at their models and consider their thinking recorded from last week.</p> <p>Is there anything they would change, improve, or add to their original idea?</p> <p>Use the see, think wonder strategy to guide student thinking.</p> <p>Teachers should provide students opportunities to share observations and develop questions. The teacher should record students' observations on chart paper and refer back to initial student ideas throughout the week.</p> <p>Inquiry Activity Task 1:</p> <p>Mystery Science: Why do bears hibernate? HANDS ON ACTIVITY</p> <p>Select the K-2 version of the task. Watch the preparation video.</p> <p>Students will use the following student lab sheet.</p> <p></p>	<p>Introduce the Driving Question: (7-10 minutes)</p> <p>Have students review the driving question:</p> <p><i>How can we ensure plants and animals have all that they need?</i></p> <p>Use the strategy to support students with making connections and understanding the driving question (DQ).</p> <p>Visualizing the Driving Question</p> <p>Click here to access question words reference chart</p> <p>The process can be recorded on chart paper with the students or the teacher can complete the graphic organizer.</p> <p>Be sure to create a reference for students to have throughout the week.</p> <p>**Teacher Note: Students should not answer the driving question at this time. Students will need to collect information, data and understanding from the phenomenon strategy, inquiry activity, investigation, text or video protocol and vocabulary</p>	<p>Review the Driving Question: (1-2 minutes)</p> <p><i>How do the parts of plants and animals help them?</i></p> <p>Graphic Organizer (2-3 minutes to access)</p> <p>Students will need and will use the student lab sheet for provided in their consumable book or the access to the activity sheet:</p> <p> (pdf)</p> <p> (editable)</p> <p>Materials</p> <p>scissors crayons tape glue different types of paper variety of cardboard objects long and thin objects</p> <p>Investigation Facilitation (30 minutes)</p> <p>uDemonstrate Lab: How do the spines of a cacti help them?</p> <p> (pdf)</p> <p> (editable)</p> <p>(SAVAAS Living Things</p>	<p>Text Annotation Strategy (35 minutes)</p> <p>Have students read and annotate the following text:</p> <ul style="list-style-type: none"> The World of Living Things Phenomena Reader <p>**TEACHER NOTE: The teacher should be signed in to SAVVAS Realize to access the link above. Headers will separate the links. However, this will be one text available to the students. Use the links above to help navigate to the text for this week.</p> <p>The teacher should facilitate the following process. Have the students follow the text protocol facilitation directions provided in the following strategy:</p> <p></p> <p>Students should complete the following student handout as they work through the text annotation protocol:</p> <p>K-2 Text Annotation Student Document (editable)</p> <p></p> <p>During the teacher-led discussion, the teacher should ask the following questions:</p> <ol style="list-style-type: none"> <i>Make a list of living</i> 	<p>Review the Phenomenon (5-7 minutes)</p> <p>Allow students to review the initial observations and questions from see, think, wonder strategy on Day 1.</p> <p>Have students review initial ideas. Ask students: <i>Have any of your ideas about the phenomenon changed? How?</i></p> <p>Have students review their initial questions. Ask students: <i>What questions generated on Day 1 can you answer; now? What are your answers to the questions?</i></p> <p>Assessment for Learning (20 minutes)</p> <p>Facilitate student assessment: The test can be administered via laptop by assigning Topic Test: Living Things or use Topic Test Assessment:</p> <p></p> <p>The topic test facilitation instructions: SAVAAS Realize</p> <p>**TEACHER NOTE: Follow Topic Test: Living Things Assessment and Remediation Instructions, Error Analysis, and Assessment Rubric to analyze student results.</p>

Students should work in pairs to match the bear food cards. As students match the cards, they collect the cards to fill the stomachs of their bears.

The goal is to fill the bear's stomach with enough food to prepare the bear for hibernation.

****TEACHER NOTE:**

■ Why do bears hibernate_...

Use the prep instruction and facilitation above.

Teachers should ask the following questions: *What do bears need to do before hibernation? Why? What happens if a bear doesn't prepare properly before they start hibernation?*

strategy to develop a response in the claim-evidence-reasoning format.

(3-5 teachers and students should focus on developing claim, evidence, and reasoning)

Claim-Evidence-Reasoning (CER)
(10-12 minutes)

Objective: Expose students to claim-evidence-reasoning (CER) student samples below to review and understand their peers' thoughts on the topic, initiating the process of developing skills for effective argumentation.

The teacher should state the following to students:

“Claim-Evidence-Reasoning or CER is a way of writing that helps students understand and explain what they learn in science investigations and science ideas.”

Review the [claim-evidence-reasoning poster](#) with students.

As a class or in student groups, provide students with this week's claim-evidence-reasoning sample.

[Use a student sample developed in class from one of the previous week's DAY 5](#)

The teacher or students should read over student sample(s) to analyze

Assessment)

Have students follow the procedure provided in the lab.

Objective: Students will design and build the model of a cactus.

Advance Preparation Gather a variety of materials for the students to choose from. Blunt the ends of any objects that are too sharp.

Alternative Materials The variety of long, thin objects can include plastic stirrers, toothpicks, golf tees, and cardboard tubes.

****TEACHER NOTE:** Use this lab as a performance based assessment. Students should be able to demonstrate mastery of the standard.

If students need more direction on this lab, use the following procedure.

1. Roll construction paper or cardboard into a tube. Glue or tape the tube together. This will be the stem.
2. Attach pipe cleaners or other long, thin objects to the tube with tape. These will be the spines.
3. Carefully feel the spines.
4. Try touch the stem of your model without touching a spine. Try it three times. Record your observations in the table.

The teacher should actively monitor students' progress through the lesson.

things you might find around your house. Do any of these things live in water? Do any of them live in the ground? Do any of them fly?

2. *Plants need sunlight to make food. What foods do you eat? Which ones need sunlight to grow?*

****TEACHER NOTE:** Read and review the annotation protocol prior to providing this lesson to students. Students will need to be placed in groups or have an understanding of how the groups will change to limit time used for transitioning.

Vocabulary Strategy
(10-15 minutes)

Vocabulary Words:
live
grow

Vocabulary Strategy:
Four Square
Provide students with the [graphic organizer \(editable\)](#) or [pdf handout](#), explaining its four sections: word, meaning, picture, and sentence.

Use a Think Aloud to demonstrate how to use the graphic organizer with one of the provided vocabulary words.

Allow students to work in collaborative groups. Actively monitor and facilitate small group discussions and review

claim-evidence-reasoning protocol. Ask students to use the CER observations chart to complete the following analysis protocol:

[Claim-Evidence-Reasoning Record Observations Document](#) (google doc)

■ Claim-Evidence-Reasoni... (PDF)

1. Identify the student's claim in the sample and have the teacher or students write their observations or questions.

2. Identify the student's evidence in the sample and have the teacher or students write their observations or questions.

3. Identify the student's reasoning in the sample and have the teacher or students write their observations or questions.

Ask the following questions to students as they analyze the student samples:

■ Claim-Evidence-Reasoni...

****Teacher Note:** As students review the student samples, they will begin to see or read vocabulary. Begin or continue a reference chart of questions or observations about vocabulary. Students will explicitly learn vocabulary on Day 4.

The teacher should ask the following questions: *How do the spines of cacti help them? What would happen if an animal tries to eat a cactus?*

various artifacts (pictures, images, primary sources, charts) to build knowledge of the term.

Have students collaborate to complete the four square strategy for the other vocabulary terms.

Monitor student progress, sharing new ideas for class discussion, and help students distinguish essential from non-essential characteristics.

Allow groups to share their thinking through academic dialogue and compare their completed task with members of other groups.

Labs / Investigations		
Mandatory Labs	Explore Learning	Mystery Science
SAAVAS: What do parts of plants look like? SAAVAS: How do whiskers help a cat? SAAVAS: What can people learn from an acorn? SAAVAS: What happens to a water plant out of water? SAAVAS: How do the spines of cacti help them?	Science 4 Us: Plants Science 4 Us: Plants-Engage.pdf	Mystery Science: Why do birds have beaks Lab Mystery Science: Why do bears hibernate Mystery Science: Why does wind blow trees?
Additional- Resources/Tasks		
Supplemental Labs	SAVAAS Interactivities T5L1: Plant Parts T5L2:What are some parts of animals? T5L3:How People Mimic Living Things? T5L4: Land and Water	
Culminating Performance Task	CER <i>What parts should I include when making or drawing a model of a plant?</i> CER <i>How do parts of plants and animals help them?</i> CER <i>How do parts of plants and animals help them?</i> CER <i>What do plants and animals need in their environment to live?</i> CER <i>How can we ensure plants and animals have all that they need?</i>	
STEM Activities	SAVVAS Stem Engineering Reader: Living Things SAVVAS uEngineer it! Video: Design a Tool	
Lesson Plan Guidance Document	Copy of Department of Science CCPS Lesson Plan Guidance Document .pdf	