



Literacy

Unit of Study-1

**1st Grade**

**Science**

**Teacher Resource Guide**

**Organisms**

**(7 weeks)**

First Grade Georgia Standards of Excellence for science engage students in raising questions about the world around them and seeking answers by making observations. In this unit, the students are asked to plan and carry out simple investigations to understand the daily needs of plants and animals observed in the world around them and make predictions based on these investigations. Students will create drawings to correctly depict plant parts. Students will perform the following science and engineering practices to investigate plants and animals.

Science and Engineering Practices

* Obtain, evaluate and communicate information.
* Develop and use models
* Ask questions
* Design a solution

Crosscutting Concepts

* Structure and function
* Cause and Effect

Core Idea

* Organisms-Plants and Animals

**Contents**

[**Standards Addressed** 3](#_Toc487752415)

[**Enduring Understandings** 3](#_Toc487752416)

[**Content Integration** 3](#_Toc487752417)

[**Texts** 4](#_Toc487752418)

[**STEM/PBL** 4](#_Toc487752419)

[**Lesson One Progression** 6](#_Toc487752420)

[**Lesson Two Progression** 18](#_Toc487752421)

|  |  |
| --- | --- |
| **Standards Addressed** | **Duration: 35 Days**  **Georgia Standards of Excellence**  **S1L1. Obtain, evaluate, and communicate information about the basic needs of plants and animals.**  a. Develop models to identify the parts of a plant—root, stem, leaf, and flower.  b. Ask questions to compare and contrast the basic needs of plants (air, water, light, and nutrients) and animals (air, water, food, and shelter).  c. Design a solution to ensure that a plant or animal has all of its needs met.  **Kindergarten Integrated Review Standards:**  *SKL2. Obtain, evaluate, and communicate information to compare the similarities and differences in groups of organisms.*  *a. Construct an argument supported by evidence for how animals can be grouped according to their features.*  *b. Construct an argument supported by evidence for how plants can be grouped according to their features.* |
| **Key**  **\*Prioritized Standards: Grade level standards of highest priority have been identified. Pacing has been modified to allow sufficient time for in-depth instruction and practice.**  **Integrated Standards: Key concepts, content, and skills, from these grade level standards, will be used to support the Prioritized Standards.**  **Prerequisite Concepts and Skills: Science and Engineering Practices from the previous grade level standards, which are most important for success with the current grade-level content, will be integrated, where they best fit, to address learning loss.** |
| **Enduring Understandings** | * Plants are made up of parts including roots, stems, leaves, and sometimes flowers. * Plants absorb water and nutrients in their roots and make their own food in their leaves. * Plants need air, water, light, and nutrients to grow. * Basic needs are anything an organism needs to survive. * Plants and animals have basic needs. Although they have different basic needs, they all require certain things to survive. * Basic needs allow an organism to survive and grow. * Animals need air, food, water, and space to live. * Plants need sunlight, air, nutrients, water, and space to live. * Plants make their own food but animals need to eat other plants and animals. Plants need sunlight but animals do not. Animals need shelter. * Plants must have all of their basic needs met, so if even one is not present, the plant cannot survive. * Animals will meet their basic needs where they live and will move around to find what they need to survive. * Plants and animals both need air, water, and space. * The characteristics of organisms are influenced by heredity and environment. * Objects and organisms can be described in terms of their parts. * Living organisms and non-living materials can be group based on observable physical attributes. * The characteristics of organisms are influenced by heredity and environment. * Objects and organisms can be described in terms of their parts. * Living organisms and non-living materials can be group based on observable physical attributes. |
| **3D Framework** | |  |  |  | | --- | --- | --- | | **Core Idea**  Organisms-Plants/Animals | **Science and Engineering Practices**   * Obtain, evaluate and communicate information. * Develop and use models * Ask questions * Design a solution | **Crosscutting Concepts**   * Structure and function * Patterns * Cause/Effect | |
| **Content Integration** | **ELAGSE1W2** Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.  **ELAGSE1W7** Participate in share research and writing projects.  **ELAGSE1RI1** Ask and answer questions about key details in a text.  **ELAGSE1RI7** Use illustrations and details in a text to describe its key ideas. |
| **Texts** | **ReadWorks.org**  <https://www.readworks.org/article/Day-and-Night-in-Nature/100d7ed2-d623-4a9a-bff1-ff1c5ca945dc#!articleTab:content/contentSection:3259ba03-baa0-4d54-b549-1a989618c8cf/>  <https://www.readworks.org/article/Animals-from-Different-Places/f262da42-37dc-4866-ae94-29799c2063a3#!articleTab:content/contentSection:446d0a4a-b4b0-421d-b95e-0a1d6b10d2c4/>  **Science A-Z: Animals**  <https://www.raz-plus.com/books/leveled-books/book/?id=1232&langId=1>  <https://www.raz-plus.com/books/leveled-books/book/?id=102&langId=1>  <https://www.raz-plus.com/books/leveled-books/book/?id=1233&langId=1> |
| **Nearpod Editable Links** | 1. **Plant Parts Formative -** [**https://share.nearpod.com/e/c7OsYx0SNab**](https://share.nearpod.com/e/c7OsYx0SNab) 2. **Plant Needs Questions -** [**https://share.nearpod.com/e/ZWXBoLsTNab**](https://share.nearpod.com/e/ZWXBoLsTNab) 3. **Plant Question -** [**https://share.nearpod.com/e/JJGzxywTNab**](https://share.nearpod.com/e/JJGzxywTNab) 4. **Animal Needs Question -** [**https://share.nearpod.com/e/hKXuu2ATNab**](https://share.nearpod.com/e/hKXuu2ATNab) 5. **Animal Needs Question 2 -** [**https://share.nearpod.com/e/qWjEw1ETNab**](https://share.nearpod.com/e/qWjEw1ETNab) 6. **Plant Parts Match It -** [**https://share.nearpod.com/e/GONYWxMTNab**](https://share.nearpod.com/e/GONYWxMTNab) |
| **STEM/PBL** | **STEMScopes: PBL**  In this Project-Based Learning (PBL), students will be helping Mrs. Gonzales design a dairy farm that has dairy cows, horses, and four crops. The students must ensure the basic needs of all the plants and animals are met so they can survive. Students will present their project to the local city council in a 3-minute presentation. The PBL can be accessed through the following link -  <https://app.acceleratelearning.com/scopes/14237/elements/625132>  Possible Student Deliverables:  Students should be encouraged to present their findings in the manner in which they can best express their knowledge. Avoid sharing this list and being prescriptive.  You could have the students create a diorama, poster, book, or brochure of their farm, showing the basic needs of the plants and animals.  **Non-STEMScopes**  Option 1: Garden  Students will determine what is needed to make a garden grow. They will create a plan for our classroom garden and plant the garden using their plan. They will then tend the garden and record observations while the plants change and grow. Students will also be engaged in activities in the science lab learning about parts of a plant and will watch grass grow from seeds. In p.e. they will learn about the nutrients the vegetables in the garden will give them. As a culminating activity, students will pick their garden and eat the vegetables (if it is ready before the end of the school year). The SLPS developed PBL can be accessed through the following link -  <https://www.slps.org/cms/lib/MO01001157/Centricity/Domain/9198/KINDERGARTEN%20SCIENCE%20PBL%202.28.17.pdf>  Option 2: A Home for Everyone  Description  In this Project-based Learning experience, students explore their local environment and describe conditions within a habitat that are beneficial for living things and those that are not good for living things. Individually, students will formulate and write a Habitat Report in which they introduce their chosen zoo animal, their opinion for the best habitat, and supply reasons that support the opinion, and provide a concluding statement or section. As teams, students will create and present their Habitat Plan "Sales Pitch" to zookeepers and local zoology students/professors as a team. Students will collaborate with local recycling agents, local zookeepers, and local zoology students to perform research to help support their opinions. To access the PBL the teacher must register on the Buck Institute for Eduacation page through the following link - https://my.pblworks.org/resource/document/a\_home\_for\_everyone |

 **SEL Connect:** During this unit, first grade students should also be building a strong learning community by developing *essential agreements*, learning to communicate positively and listening effectively through Second Step lessons and Community Gatherings. In order to further develop the caring classroom environment critical for learning and academic engagement, consider enhancing your lessons by providing opportunities throughout this unit for students to practice the SEL skills taught.

Throughout this unit, you will see SEL Connect as a signal that the associated activity is a great opportunity to remind students to practice the processes and skills learned during SEL explicit instruction. Below is a table of SEL standards related to this unit, along with teacher and student actions that will build student capacity to become more socially and emotionally competent.

|  |  |  |
| --- | --- | --- |
|  | **Students in Action** | **Teachers in Action** |
| SA_badge | Students reflect on their own thoughts and emotions about the text. | Teacher prompts students to identity their thoughts and emotions about the characters and events. |
|  | Students identify and utilize tools for active listening, focusing attention and being assertive, especially when listening to text and asking/answering questions. | Teacher demonstrates and reinforces Listening Rules, Focusing Attention, and being Assertive SEL tools. |
| SoA_badge | Students compare and contrast different environments where the concept may be applied. | Teacher allows students to generate characteristics about the environments and prompts them to compare and contrast to their current environment. |
| RS_badge | Students develop positive relationships in the classroom by listening with attention and speaking respectfully with classmates in pairs. | Teacher provides daily opportunities to practices think-pair-share and turn and talk collaborative structure with a variety of partners. |
| RDM_badge | Students determine problems characters faced in stories. Collaboratively, students can determine solutions to problems. | Teachers guides students through the problem solving process. |

# **Lesson One Progression**

Duration: 20-25 days

|  |
| --- |
| **Focus Standard** |
| **S1L1. Obtain, evaluate, and communicate information about the basic needs of plants and animals.**   1. Develop models to identify the parts of a plant—root, stem, leaf, and flower.   **Kindergarten Review:**  **SKL2. Obtain, evaluate, and communicate information to compare the similarities and differences in groups of organisms.**  b. Construct an argument supported by evidence for how plants can be grouped according to their features. |

|  |  |
| --- | --- |
| **Know/Show Chart** | |
| **Students MUST Know:**   * Know the parts of a plant. * Use a model to communicate parts of a plant. * Compare and contrast plants. | **Students MUST Do/Show:**   * Identify the parts of the plant (Roots) and describe its function. * Identify the parts of the plant (Stem) and describe its function. * Identify the parts of the plant (Leaf) and describe its function. * Identify the parts of the plant (Flower) and describe its function. * Develop a model to identify the parts of a plant—root, stem, leaf, and flower. * Sort plants into groups based on similar features. |

|  |  |  |  |
| --- | --- | --- | --- |
| **Performance-based Objectives** | | | |
| **As a result of their engagement with this unit…** | | | |
| **SWBAT** develop models IOT identify the parts of a plant. | | | |
| **Learning Target #1** | **Learning Target #2** | **Learning Target #3** | **Learning Target #4** |
| Identify the root and determine its structure and function in a plant. | Identify the stem and determine its structure and function in a plant. | Identify the leaf and determine its structure and function in a plant. | Identify the flower and determine its structure and function in a plant. |
| **Assessment #1** | **Assessment #2** | **Assessment #3** | **Assessment #4** |
| The students will circle the correct part of the plant and describe its function.  *Printable worksheet*    [Google Link](https://docs.google.com/document/d/10Xmlk2E6x23p-z4ZAbgVzMtgkhereiL7YjBuU0w3mxA/edit?usp=sharing)    *Nearpod Activity* | The students will circle the correct part of the plant and describe its function.  *Printable worksheet*    [Google Link](https://docs.google.com/document/d/1Jn4DexjN3tCcbf7thixjHQBXZ0pwbr6rYsJCrbCcbnM/edit?usp=sharing)    *Nearpod Activity* | The students will circle the correct part of the plant and describe its function.  *Printable worksheet*  [Google Link](https://docs.google.com/document/d/1mEyHSvpzZTuJdAe0Iy8vYmuB578q8Nr_veGprUGiAxQ/edit?usp=sharing)    *Nearpod Activity* | The students will circle the correct part of the plant and describe its function.  [Google Link](https://docs.google.com/document/d/1ENtT84_Nj8fYie8y0Da5-u9MnkZylm0FAH8Vbkr7Kmg/edit?usp=sharing)    *Nearpod Activity* |
| **Learning Target #5** | **Learning Target 6** | **Learning Target 7** | **Learning Target 8** |
| Develop a model which identifies the parts of a plant- root, stem, leaf, and flower. | Make a Claim IOT construct an argument for how plants can be grouped based on their features | Identify the physical attributes of plants | Compare the physical attributes of plants and explain the similarities based on observable features. |
| **Assessment #5** | **Assessment 6** | **Assessment 7** | **Assessment 8** |
| **Exit Ticket**  Students will draw a picture and label the different parts of a plant. | Students will make a claim to how to group the plants in the scenario. Throughout the lesson progression, the students will collect evidence which will support or refute their claim:  *Printable Worksheet*    [Google Link](https://docs.google.com/document/d/1XfAgq0Yuk8mLSgG-D3HGH5Vm0HeiNIw2k9Bl2VeJBU8/edit?usp=sharing) | **Performance Assessment**  The teacher will let the students observe different plants outside of their homes. The students will describe the physical attributes of the plant (size, color, shape, etc.) | **Performance Assessment**  The teacher will let the students observe and different plants inside and outside of their homes. The students will describe how the plants are similar based on their physical attributes (size, color, shape, etc.) |
| **Learning Target 9** | **Learning Target 10** |  | |
| Contrast the physical attributes of plants and explain the similarities based on observable features. | Construct an argument for how plants can be grouped based on their features |
| **Assessment** | **Assessment** |
| **Performance Assessment**  The teacher will let the students observe and different plants inside and outside of their homes. The students will describe how the plants are different based on their physical attributes (size, color, shape, etc.) | Students will use the evidence gathered during the lesson progression to decide if their and their peers’ claim was correct.  *Printable Worksheet*    [Google Link](https://docs.google.com/document/d/1XfAgq0Yuk8mLSgG-D3HGH5Vm0HeiNIw2k9Bl2VeJBU8/edit?usp=sharing) |
|  | | | |
| **Key Terms and Definitions** | | | |
| * Nutrients-minerals in the soil that plants need to grow and stay healthy * Roots- the part of the plant that holds the plant in the soil and takes in water and nutrients * Stem-part of the plant holds up the plant and lets food and water move through the plant * Leaves- the part of the plant that takes in light and air and make food * Flowers- the part of the plant that makes fruits * Fruit-the parts of a plant that holds the seeds * Seeds-the part of the plant that new plants grow from * Attributes- observable features * Identify- to recognize * Group- sort according to objects’ observable features * Alike- When things are alike, they are the same or similar in some way. * Different- when things are not the same or similar * Living- Things that need food, water, and air to live and grow. * Organisms- plants, animals, and other living things * Appearance- the way someone or something looks | | | |
| **Guiding Questions:** | | | |
| * What are the different part of plants? * What do plants need to survive? * Why are plants important to us? * Are there plants that don’t need much water to survive? If so, what are they and why don’t they need much water? * What are the different types of plants? * What do all plants have in common? * How can I group plants? | | | |
| **Interpretations and Reminders** | | | |
| Teachers make sure you teach the following proper conceptions:   * Plants and animals need each other to survive. * Animals have different characteristics, which help them adapt in different environments. * Wild animals are found in the city. The animals are able to find ways to adapt. * Some plants go dormant, but grow again once the weather becomes warmer. * Books do not always show the animal characters behaving like real animals. | | | |
| **Misconceptions** | | | |
| * Plant and animals do not depend on each other. * All animals have the same characteristics. * Plants are not alive in the cold, winter months. | | | |
|  | | | |
| **Suggested Learning Experiences** | | | |
| **Pretest/Posttest**  Begin the unit by administering the pretest/posttest. Use DOK questions to formatively assess students throughout the unit. The research based 5E model is the instructional model for science.    Google Doc link - <https://docs.google.com/document/d/1IRddMPx5bOVpNU-qi5S2_Ltujm3yEU8A2Yp8yoX20nw/edit?usp=sharing>  Create word wall word or bulletin for the following (to be added once discussed in class): root, stem, leaf, flower, air, water, light, nutrients, sunlight, food, shelter, appearance, motion, growth, adapt, hibernate, and migrate to the class word wall to encourage students to use these words in their writing. | | | |
| **Sample Virtual Lesson** | | | |
| Teachers can use the model lesson from Nearpod as a template to develop 5E lessons in a virtual format. The model lesson does not include all of the resources found in this unit. Yet, it helps provide guidance on how to make interactive Science lessons using the resources. The model lesson can be accessed through the following link - <https://share.nearpod.com/0Q1FCWXpQ8> | | | |
| **Anchor Phenomena**  The students will watch the video which shows the life cycle of a sunflower plant - <https://www.youtube.com/watch?v=0q0WfWFna7Y>. Afterwards, the students will make a claim to the following question:   * Do believe plants need all of their parts in order to survive?   The students will collect evidence from completed activities throughout the lesson to support or refute their claim.    **CEE Graphic Organizers**    Google Doc Link - <https://docs.google.com/presentation/d/1LogOyHkDns3g4z9UHsXnVuX5kQZCcx_Ed8WLX0fTXQY/edit?usp=sharing>  **Engage**  **Teacher Note:** Students will complete one of the Engage activity options to introduce the Science phenomena. The “Plant Sort” activity of each option is a review of the Grade K standard: *SKL2. Obtain, evaluate, and communicate information to compare the similarities and differences in groups of organisms. Element b. Construct an argument supported by evidence for how plants can be grouped according to their features,* resulting from the Covid-19 pandemic*.* Therefore, teachers should provide opportunities for students to review sorting of plants skills based on their similarities and differences. All links can be shared in any virtual classroom setting or presentation platform.  **Option 1: STEMScopes**  **Part I:** In this activity, students will obtain information through observation of plants. Students will sort plants based on their observable parts. Detailed directions and materials for the activity can be virtually accessed and distributed through the following link - <https://app.acceleratelearning.com/scopes/10568/elements/493166>.  **Part II:** Students will make claims before the investigation begins to hypothesize what they believe to be true or untrue about the scenario below:  Google Doc link - <https://docs.google.com/document/d/1XfAgq0Yuk8mLSgG-D3HGH5Vm0HeiNIw2k9Bl2VeJBU8/edit?usp=sharing>    **CEE Graphic Organizers**    Throughout the lesson progression activities, the students will collect evidence to support or refute their claim.  ***Digital Teacher’s Note***: The word document can be distributed to students by saving it to your computer and emailing it through your APS Google account. Also, the document can be converted into a Google Doc and shared within the Google Classroom. Instructions for converting pdf’s and Word docs to Google Docs - <https://www.youtube.com/watch?v=SQQOZlSCZMk>  **Option 2: Non STEMscopes**  **Part I:** Inform students that they should pretend to be “Plant Hunters” as you go on a guided walk around their outside area nearby area that features a variety of plants. Remind students that they are looking for the parts of the plants and how they are similar or different. Each student will record their observations. If needed, the teacher can take the students on a virtual guided plant walk (using a mobile device such as an Ipad or tablet) and allow time for them to write or draw their observations of the plants at each station. More information about the activity can be gathered via the following link - <https://education.seattlepi.com/1stgrade-lesson-parts-plant-3695.html>  **Part II:** Students will make claims before the investigation begins to hypothesize what they believe to be true or untrue about the scenario below:  Google Doc link - <https://docs.google.com/document/d/1XfAgq0Yuk8mLSgG-D3HGH5Vm0HeiNIw2k9Bl2VeJBU8/edit?usp=sharing>    **CEE Graphic Organizers**    Throughout the lesson progression activities, the students will collect evidence to support or refute their claim.  ***Digital Teacher’s Note***: The word document can be distributed to students by saving it to your computer and emailing it through your APS Google account. Also, the document can be converted into a Google Doc and shared within the Google Classroom. Instructions for converting pdf’s and Word docs to Google Docs - <https://www.youtube.com/watch?v=SQQOZlSCZMk>  **Explore**  **Guided Practice- Teachers ask students the following guiding questions throughout guided practice.**   * What are the different part of plants? * How do they support the plant?   **Teacher Note:** Students will complete one of the Explore activity options to deepen their knowledge of the Science phenomena. After completing the activities, the students will collect data to support or revise their original claim. Part II of each activity is a review of the Grade K standard: *SKL2. Obtain, evaluate, and communicate information to compare the similarities and differences in groups of organisms. Element b. Construct an argument supported by evidence for how plants can be grouped according to their features,* resulting from the Covid-19 pandemic*.* Therefore, teachers should provide opportunities for students to review sorting of plants skills based on their similarities and differences. All links can be shared in any virtual classroom setting or presentation platform.    **Option 1: Nature Walk**  **Part I:** The parents of the students will take them on a nature walk around the home/community looking for all types of plants. Have students bring their science journal along to draw pictures of the plants they find. Have students label the parts of the plants that they see and discuss the structure and functions of those parts. Discuss the results in the Google classroom. Ask students if there were parts of the plants that they were not able to see and why. Have students write what each part of the plant they saw today does (example: seeds-make new plants). Teacher Note: The following link provides ideas for students to create and label their plants to make the learning more interactive and creative - <https://www.teachjunkie.com/sciences/parts-of-a-plant-activities-easy-quick/>  The students can complete the Nearpod activity as an extension - <https://share.nearpod.com/ORy6KEX8a8>  **Part II:** Show the students different plants located on the Google Slide - <https://docs.google.com/presentation/d/1VtFlptNXlu6yQ0r9wV2utDWU9fz1eConf2ke1AJBwZE/edit?usp=sharing>. Ask students what these plants have in common and discuss how they be sorted into similar groups. **Teacher Note**: In a virtual presentation (Google Meets or Zoom), the teacher can use the slide pointer to identify the plant and allow the students to answer through the chat feature or orally. The teacher can write the answers on chart paper.  The students can complete the Nearpod activity as an extension - <https://share.nearpod.com/pMi5fHs8a8>  **Option 2: STEMScopes**  **Part I:** In this activity students will review the parts of plants and their functions by investigating real plants and creating a model. More detailed information about the activity can be accessed through the following links:  Teacher Materials – <https://app.acceleratelearning.com/scopes/10568/elements/494889>  Student Materials - <https://app.acceleratelearning.com/scopes/10568/elements/494890>  **Part II:** Show the students different plants located on the Google Slide - <https://docs.google.com/presentation/d/1VtFlptNXlu6yQ0r9wV2utDWU9fz1eConf2ke1AJBwZE/edit?usp=sharing>. Ask students what these plants have in common and discuss how they be sorted into similar groups. **Teacher Note**: In a virtual presentation (Google Meets or Zoom), the teacher can use the slide pointer to identify the plant and allow the students to answer through the chat feature or orally. The teacher can write the answers on chart paper.  The students can complete the Nearpod activity as an extension - <https://share.nearpod.com/pMi5fHs8a8>  **Focus Lesson**  **Explain**  **Teacher Note:** Students will complete one of the Explain activity options to increase their knowledge of the Science phenomena. Part II of each activity is a review of the Grade K standard: *SKL2. Obtain, evaluate, and communicate information to compare the similarities and differences in groups of organisms. Element b. Construct an argument supported by evidence for how plants can be grouped according to their features,* resulting from the Covid-19 pandemic*.* Therefore, teachers should provide opportunities for students to review sorting of plants skills based on their similarities and differences. All links can be shared in any virtual classroom setting or presentation platform.    **Option 1: STEMScopes and Plant Sort**  **Part 1: STEMScopes**  The students will answer the STEMScopes questions located in the “Explain” section of “1L1A Parts of Plants” lesson - <https://app.acceleratelearning.com/scopes/10568/elements/450206>.  The students will review the following STEMScopes “Explain” activities:   * Picture Vocabulary - <https://app.acceleratelearning.com/scopes/10568/elements/450024> * Stemscopedia - <https://app.acceleratelearning.com/scopes/10568/elements/518894> * Content Connection – <https://app.acceleratelearning.com/scopes/10568/elements/549043> * Content Connection – <https://app.acceleratelearning.com/scopes/10568/elements/549047> * Content Connection - <https://app.acceleratelearning.com/scopes/10568/elements/549089> * Content Connection - <https://app.acceleratelearning.com/scopes/10568/elements/549103>   **Part 2: Plant Sort**  The teacher will show the students different plants on the Google Slide - <https://docs.google.com/presentation/d/1N4DZUkQu-eIstqUl5fFhsSERk4iZIHqp9SDHzvgzRgY/edit?usp=sharing>. Ask students what these plants have in common and discuss how they be sorted into similar groups. **Teacher Note**: In a virtual presentation (Google Meets or Zoom), the teacher can use the slide pointer to identify the plant and allow the students to answer through the chat feature or orally. The teacher can write the answers on chart paper.  **Option 2: Freckle and Plant Sort**  **Part 1: Plants and Animals Parts:**  Begin the lesson by reviewing the standard and science words: root, stem, leaf, and flower. Show the plant parts video segment from Lesson 2: Plants and Their Parts video “Plant Parts”: -https://classroom-demo.freckle.com/#/science-units/9731c8f1-7cc9-4130-9a73-e7ad04179901?lesson=2. This video allows students to understand the different parts of the plant. Students will write down key words as they are watching the video.  **Part 2: Plant Model**  The teacher will ask the students to cut, paste, and color the Lesson 2: Plants and Their Parts – Activity: Plants Parts Puzzle - <https://classroom-demo.freckle.com/#/science-units/9731c8f1-7cc9-4130-9a73-e7ad04179901?lesson=2>. The teacher will ask the students to submit their picture through email, jpeg cell phone text message, or uploaded to the Google Classroom.  **Part 3: Plant Sort**  The teacher will show the students different plants on the Google Slide - <https://docs.google.com/presentation/d/1N4DZUkQu-eIstqUl5fFhsSERk4iZIHqp9SDHzvgzRgY/edit?usp=sharing>. Ask students what these plants have in common and discuss how they be sorted into similar groups. **Teacher Note**: In a virtual presentation (Google Meets or Zoom), the teacher can use the slide pointer to identify the plant and allow the students to answer through the chat feature or orally. The teacher can write the answers on chart paper.  **Collaborative Practice**  **Elaborate**  **Teacher Note:** Students will complete one of the three Elaborate activities to expand their knowledge of the Science phenomena. During the Elaborate activity, students will use the following **Science and Engineering Practices**:   * **Evaluate:** Students will identify and create plants and plant parts. * **Communicate:** Students will communicate plant parts and functions.     **Activity: Flip Chart**  Utilize the following flipchart:    This will be a whole group activity in which students are selected to click and drag to label each plant part, sort pictures of plants, and find out what plants need to grow. Teacher Note: Although, the flipchart can be presented through the virtual classroom (Zoom or Google Meets), the teacher is the only one who can interact with it. Therefore, the students will have to communicate their answers to allow the teacher to choose their selections.   |  |  | | --- | --- | | **Differentiation Supports** | | | Learning Difficulty | * Utilize the Intervention Reader *All About Plants*. This reader presents identical chapter content and vocabulary at a below-grade reading level. It also uses a visual glossary, simplified language, and comprehension aids especially designed for struggling readers. * Refer to the KWL chart when needed. * Students can have extended time for their illustrations. * Students can illustrate the new science word and use it in a sentence orally during their presentation. * Give students the opportunity to work alone or with other classmates. * **UNITS OF STUDY Instructional Strategies for Students with Learning Difficulty** | | *High Achieving* | * Utilize the Above-Level Challenge Reader *What Do You Eat.* This reader enriches and extends chapter concepts.   Students can illustrate multiple new science words and use them in a sentence. | | *English Learners* | * Utilize the ELL/ESOL Support guide which provides additional support for the strategies and activities that appear throughout this chapter. This guide also provides: English-language development activities, activities for building background, scaffold concept development, and vocabulary extensions and language transfers. * Collaborate with ESOL teacher * Students can reference the KWL chart throughout the unit * Peer buddies (pair more proficient ELL with less proficient ELL) * Students can illustrate the new science word and use it in a sentence orally during their presentation. |   **Independent Practice**  **Evaluate**  **Claims-Evidence-Reasoning -** [**https://app.acceleratelearning.com/scopes/10568/elements/528125**](https://app.acceleratelearning.com/scopes/10568/elements/528125)  **Standards Based Assessment(s)**  **Non STEMScopes Assessment**    **Google Doc link -** [**https://docs.google.com/document/d/1\_7sD26dUXTSskAlUeq9U4Sr1xD9RGq8CquuFSQAYjC4/edit?usp=sharing**](https://docs.google.com/document/d/1_7sD26dUXTSskAlUeq9U4Sr1xD9RGq8CquuFSQAYjC4/edit?usp=sharing)  **STEMScopes: Multiple Choice Assessment -** [**https://app.acceleratelearning.com/scopes/10568/elements/525005**](https://app.acceleratelearning.com/scopes/10568/elements/525005)  **Open Ended Response -**[**https://app.acceleratelearning.com/scopes/10568/elements/524872**](https://app.acceleratelearning.com/scopes/10568/elements/524872) | | | |
| **Online/Print Resources** | | | |
| **HMH Georgia Science**  **Grade 1**  **Unit 6**   |  |  |  | | --- | --- | --- | | **Standard** | **Topic** | **Pages** | | S1L1b | What Do Plants Need? | 185-194 | | S1L1b | Why Do Plants Grow? | 195-196 | | S1L1a | What Are Some Parts of Plants? | 197-206 | | S1L1b | What Do Animals Need? | 207-218 |   Labeling the Parts of a Plant <http://www.crickweb.co.uk/ks1science.html>  Games and Activities About Plants <http://resources.woodlands-junior.kent.sch.uk/revision/science/living/plants.html> (**Note:** The top of the web page is an introduction to plants, and the games are at the bottom of the page.)  Plant and Animal Sort<http://www.crickweb.co.uk/ks1science.html> | | | |

# **Lesson Two Progression**

Duration: 15-20 days

|  |
| --- |
| **Focus Standard** |
| **S1L1. Obtain, evaluate, and communicate information about the basic needs of plants and animals.**   * 1. Ask questions to compare and contrast the basic needs of plants (air, water, light, and nutrients) and animals (air, water, food, and shelter).   **Kindergarten Review:**  **SKL2. Obtain, evaluate, and communicate information to compare the similarities and differences in groups of organisms.**  a. Construct an argument supported by evidence for how animals can be grouped according to their features. |

|  |  |
| --- | --- |
| **Know/Show Chart** | |
| **Students MUST Know:**   * Plants and animals have basic needs and why each need is important to their survival. * Differentiate between the basic needs of different plants, * Differentiate between the basic needs of different animals. * Formulate questions which answers assist in identifying differences between species. * Differentiate between the basic needs of plants and animals. * Compare and contrast animals | **Students MUST Do/Show:**   * Students will formulate questions to compare and contrast the basic needs of plants (air, water, light, and nutrients) and animals (air, water, food, and shelter). * Compare and contrast how some basic need amounts vary between plant species * Compare and contrast how some basic need amounts vary between animal species * Compare the similarities of plants and animals basic needs. * Contrast the differences of plants and animals basic needs. * Create a plan to help a plant meet its needs. * Use evidence to sort animals into similar groups |

|  |  |  |  |
| --- | --- | --- | --- |
| **Performance-based Objectives** | | | |
| **As a result of their engagement with this unit…** | | | |
| **SWBAT** ask questions about plants and animals IOT compare and contrast their basic needs and design a solution to ensure their needs are met. | | | |
| **Learning Target #1** | **Learning Target #2** | **Learning Target #3** | **Learning Target #4** |
| Identify the basic needs of plants (air, water, light, and nutrients) | Compare and contrast the basic needs of different plants. | Students will determine the basic needs of animals **(air, water, food, and shelter).** | Compare and contrast the basic needs of different animals |
| **Assessment #1** | **Assessment #2** | **Assessment 3** | **Assessment #4** |
| **Exit Ticket**  The students will write the four things plants need to survive. | Exit Ticket  The students will answer the question “Do all plants need the same amount of **air, water, food, and shelter?** Why or why not? | **Exit Ticket-** Students will write/illustrate their favorite animal on one side and write its basic needs **(air, water, food, and shelter)** on the opposite side of the card. | **Exit Ticket**  Students will write/illustrate an animal which needs a lot of air, food, and water compared to one that needs less. Example: Bear and ant. |
| **Learning Target 5** | **Learning Target 6** | **Learning Target 7** | **Learning Target 8** |
| Construct an argument for how animals can be grouped based on their features | Compare and Contrast offspring to their parents | Compare and contrast offspring to their same species | Compare and Contrast the basic needs of plants and animals. |
| **Assessment** | **Assessment** | **Assessment** | **Assessment** |
| Students will make a claim to how the following animals can be grouped: Cat, dog, lion, wolf, snake, and worm.    [Google Link](https://docs.google.com/presentation/d/1LogOyHkDns3g4z9UHsXnVuX5kQZCcx_Ed8WLX0fTXQY/edit?usp=sharing)    Students will use the evidence gathered during the lesson progression to decide if their and their peers’ claim was correct. | Students will observe the pictures and compare and contrast the similarities between parent and offspring.  [Activity Link](https://www.onegreenplanet.org/animalsandnature/14-beautiful-photos-of-ani) | The students will compare how the offspring are similar to adults in their same species.  *PowerPoint Slide*    [**Google Link**](https://docs.google.com/presentation/d/1H6giSPn__xU2OZujh4RTOSnFgFbLpsiTETy2vOpcmho/edit?usp=sharing)    **Nearpod Activity** | **Exit Ticket**  Write one thing that plants/animals need that are the same and one thing that is different. |
| **Key Terms and Definitions** | | | |
| * **Compare/Contrast-** explain how two or more persons, places, things, or ideas are alike and/or how they are different. * **Sunlight**- light that comes from the sun * **Nutrients**-minerals in the soil that plants need to grow and stay healthy * **Seeds**-the part of the plant that new plants grow from * **Basic Need** - Something a living thing needs to survive, such as air, space, nutrients, water, shelter, and energy * **Air** – The invisible gas that we breathe * **Water** - A liquid that all living things need to survive * **Sunlight** - The energy from the Sun that plants capture and use to live and grow * **Nutrients** - Substances that provide nourishment for growth and survival * **Survive** - Continue to live or exist * **Compare/Contrast**- explain how two or more persons, places, things, or ideas are alike and/or how they are different. * **Basic Need** - Something a living thing needs to survive, such as air, space, nutrients, water, shelter, and energy * **Air** – The invisible gas that we breathe * **Water** - A liquid that all living things need to survive * **Food** – any nutritious substance that people or animals eat or drink, or that plants absorb, in order to maintain life and growth. * **Shelter** - a place giving temporary protection from bad weather or danger. * **Survive** - Continue to live or exist | | | |
| **Guiding Questions:** | | | |
| * What do plants need to survive? * Why are plants important to us? * How do plants depend on each other to survive? * Are there plants that don’t need much water to survive? If so, what are they and why don’t they need much water? * What are the different part of plants? * Why are animals important to humans? * How do animals depend on each other to survive? * Are there animals that need plants to survive? * Can you compare and contrast the needs of plants and animals? * What do plants/animals need to survive? * What do humans need to survive? * Why can’t animals all live in the same place? * How do animals adapt to their environment? * What are characteristics of animal groups? * Why are plants and animals important to us? | | | |
| **Interpretations and Reminders** | | | |
| Teachers make sure you teach the following proper conceptions:   * Plants and animals need each other to survive. * Some plants go dormant, but grow again once the weather becomes warmer. | | | |
| **Misconceptions** | | | |
| * Plant and animals do not depend on each other. * All plants have the same characteristics. * Plants are not alive in the cold, winter months. * Animals have different characteristics, which help them adapt in different environments. * Wild animals are found in the city. The animals are able to find ways to adapt. * Plants and animals have basic needs that help them obtain energy and grow. * Plants require sunlight, air, water, nutrients (food), and space. * Animals require air, food, water, space, and sometimes shelter. * Plants and animals have needs that are similar and different. | | | |
| **Sample Virtual Lesson** | | | |
| Teachers can use the model lesson from Nearpod as a template to develop 5E lessons in a virtual format. The model lesson does not include all of the resources found in this unit. Yet, it helps provide guidance on how to make interactive Science lessons using the resources. The model lesson can be accessed through the following link - <https://share.nearpod.com/H5D0QCiqQ8> | | | |
| **Suggested Learning Experiences: Students will complete each anchor phenomena activities.**  **Anchor Phenomena 1**  The students will view the following video which displays different plants growing from a seed to a flower - <https://gpb.pbslearningmedia.org/resource/tdc02.sci.life.colt.plantsgrow/from-seed-to-flower/#.W2iVIihKiUk>. After viewing the video, the teacher will ask the students to formulate questions they have about plant needs. The students will make a claim answering the following Driving Question:   * Do all plants need the same amount of air, water, light, and nutrients to survive?     The students will collect evidence throughout the lesson progression to support or refute their claims.    **CEE Graphic Organizers**    Google Doc Link - <https://docs.google.com/presentation/d/1LogOyHkDns3g4z9UHsXnVuX5kQZCcx_Ed8WLX0fTXQY/edit?usp=sharing>  **Anchor Phenomena 2**  The students will watch the video of a raccoon eating food - <https://www.youtube.com/watch?v=FTcjzaqL0pE>. Afterwards, the class will make a claim about one of the following questions:   * What do animals need to survive?     **CEE Graphic Organizers**    Google Doc Link - <https://docs.google.com/presentation/d/1LogOyHkDns3g4z9UHsXnVuX5kQZCcx_Ed8WLX0fTXQY/edit?usp=sharing>  Throughout, the lesson progression the students will collect evidence to support or refute their claim. | | | |
| **Engage**  **Teacher Note:** Students will complete one of the Engage activity options to introduce the Science phenomena.    **Option 1 : Plants and Animals**  **Part I: Video Presentation/Prior Knowledge Discussion**  Begin the lesson by having the students view and ask questions about the slide below in (Live virtually through Google Meets or Zoom. The teacher can post the slide in the Google Classroom and ask the students to write their questions):    Google Slides link - <https://docs.google.com/presentation/d/1IzABZMnHfrM3oVPFsqQVWGR3qEQ8DDiF0TzK7UdxgUg/edit?usp=sharing>  The students can also post their questions to the Nearpod discussion board - <https://share.nearpod.com/xhRemYyab8>  The teacher will ask the students to answer the following question (live digitally through the viewing platform or in the Google Classroom), “How do the four pictures relate to plants?” The students can also post their questions to the Nearpod discussion board - <https://share.nearpod.com/YdlXCnLab8>  **Part II: Animals’ Survival**  Teacher will show the following words to students: air, water, food, and shelter. Students will discuss their knowledge about the previous four words with a partner. As a class, students will share their thoughts about air, water, food, and shelter. Teacher will show a picture of two animals. In small groups, students will discuss the similarities and differences of the two animals. Students will write questions about the animals’ survival.  The teacher will show the students the video - <https://www.youtube.com/watch?v=Pe9kSlVeEIM>  The teacher can ask the studentsone of the following **crosscutting concept questions to probe for Cause and Effect:** “What can cause animals to receive a lack of air, water, food, or shelter?” and “What effect can a lack of air, water, food, or shelter have on an animal?”  Nearpod Questions:   1. <https://share.nearpod.com/xyk2Xt2ab8> 2. <https://share.nearpod.com/MPvjgS0ab8>   **Option 2: STEMScopes**  In this activity, students will identify the basic needs of plants and animals. A teacher’s guide can be accessed through the following link in My Backpack - <https://app.acceleratelearning.com/scopes/10569/elements/493162>  **Explore**    **Guided Practice- Teachers ask students the following guiding questions throughout guided practice.**   * **What do plants need to survive?** * **Are there plants that don’t need much water to survive? If so, what are they and why don’t they need much water?** * ***What do plants need to grow? Why?*** * ***Why is food important to plants?*** * ***How do plant needs differ?*** * **Why are animals important to humans?** * **How do animals depend on each other to survive?** * **Are there animals that need plants to survive?** * **Can you compare and contrast the needs of plants and animals?** * **What do plants/animals need to survive?** * **What do humans need to survive?** * **Why can’t animals all live in the same place?** * **How do animals adapt to their environment?** * **What are characteristics of animal groups?** * **Why are plants and animals important to us?**   **Teacher Note:** Students will complete one of the Explore activity options to deepen their knowledge of the Science phenomena. The students will learn that although some animals and plants have the same basic needs, some need more or less of each than others. After completing the activities, the students will collect data to support or revise their claim about the anchor phenomena. Part III activity one and Part II of Activity 2 are a review of the Grade K standard: *SKL2. Obtain, evaluate, and communicate information to compare the similarities and differences in groups of organisms. Element a. Construct an argument supported by evidence for how animals can be grouped according to their features,* resulting from the Covid-19 pandemic*.* Therefore, teachers should provide opportunities for students to review sorting of plants skills based on their similarities and differences.  **Option 1: Plants and Animals Needs/Sort**  **Part 1: Different Plant Needs Investigation**  The teacher will share the following Gizmos investigation with the students (on a shared screen in the virtual platform) - <https://www.explorelearning.com/index.cfm?method=cResource.dspView&ResourceID=615>. (***Teacher Note***: The instructor must sign up for a free demo account to view the investigation for more than 5 minutes.) The teacher will select one of each seed (Tomato, Bean, and Turnip) and provide each with only 10 mL of water, one light, no fertilizer, and no compost. Pressing play on the interactive will show the bean plant growing over 10cm higher than the tomato seed and 4 cm higher than the turnip seed. The teacher will ask the students to communicate why the bean plant grew higher with the same amount of its needs met? The teacher will then reset the interactive and add two lights, 90 mL of water, and three scoops of fertilizer and two scoops of compost to the tomato and turnip seeds’ soil. After playing the interactive, the class will discuss why they believe the bean seed still grew into a plant that was taller than the other seeds, although they significantly increased in size? The teacher will explain that all plants do not need the “same amount” of air, water, light, and nutrients to grow.  If possible, the teacher will show the students two different plants which require a different amount of water, air, light, or nutrients than each other to live. If live plants are not available, the students will look at the slide below of a house plant and cactus:    Afterwards, the class will discuss the following questions:   * What do all plants need to survive? * Do all plants need the same amounts of water, air, light, or nutrients to survive? Why or why not?   **Part 2: Freckle**  (If materials are available) Students will complete Ecosystems: Lesson 2 – What plants need to survive?: Activity – How do plants grow? <https://classroom-demo.freckle.com/#/science-units/1b818b77-320c-488e-8cf2-b6ea5e831179?lesson=1>  **Part 3**: **Animal Needs**  Have students draw a picture (model) of their favorite animal. Tell students that they must illustrate what their favorite animal needs to grow and write a claim as to why it is important to the animal. The students will be asked to submit their pictures to the teacher through email, text message, or upload to the Google Classroom.  **Part 4: Animal Sort**  The teacher will group the pictures of animals submitted and instruct the students to sort the animals them into similar groups based on their physical features (live via Zoom or Google Meets). Teacher note: If the student drawings are not recognizable or accurate to real life animals, the teacher can use the following Nearpod link to complete the activity - <https://share.nearpod.com/ko5Dzuibb8>.  **Option 2: STEMscopes and Animal Sort**  **Part 1: Stemscopes**  In Part I of this activity, students identify and compare and contrast organisms’ basic needs by playing a board game with various levels of questioning. <https://app.acceleratelearning.com/scopes/10569/elements/494892>  Teacher Note: This activity will need to be completed whole group via Google Meets or Zoom if face to face instruction is not an option.  **Part 2: Animal Sort**  Via Google Meets or Zoom, The teacher will let the students view different animals on the following Nearpod page -<https://share.nearpod.com/ko5Dzuibb8>. The students will be asked which animals could be grouped together based on similar physical attributes? **Teacher Note**: The teacher will need to sort the animal responses from students on a T-chart.  **Focus Lesson**  **Explain**  **Teacher Note:** Students will complete the Explain activities to increase their knowledge of the Science phenomena. The Extension activity is an optional student activity available for the teacher to use during instruction. Part II of each Activity contains a review of the Grade K standard: *SKL2. Obtain, evaluate, and communicate information to compare the similarities and differences in groups of organisms. Element a. Construct an argument supported by evidence for how animals can be grouped according to their features,* resulting from the Covid-19 pandemic*.* Therefore, teachers should provide opportunities for students to review sorting of plants skills based on their similarities and differences.    **Option 1: Plant and Animal Needs**  **Part I**: **What do Plants Need?**  Students will watch the video which explains the basic needs of plants and reviews the parts of plants. Link - <https://www.youtube.com/watch?v=wmFbuI-H9TQ>  **Part II: What do Animals Need?**  The students will watch the following video - <https://www.youtube.com/watch?v=k4UDf3tF_O4&feature=youtu.be>. Afterwards, the students will view the differences of how animals acquire their basic needs in the video  <https://www.youtube.com/watch?v=Pe9kSlVeEIM>. During the video, the students will be asked to identify different animals they recognize. Afterwards, the teacher will ask the students to group the animals based on their physical features using the document below:    Google Doc link - <https://docs.google.com/document/d/1sNRRBvibpdvys37XEfzASaA1ebEMKL4OXfIcrBb44yw/edit?usp=sharing>  ***Digital Teacher’s Note***: The word document can be distributed to students by saving it to your computer and emailing it through your APS Google account. Also, the document can be converted into a Google Doc and shared within the Google Classroom. Instructions for converting pdf’s and Word docs to Google Docs - <https://www.youtube.com/watch?v=SQQOZlSCZMk>  **Option 2: STEMScopes**  Part 1: The students will answer the STEMScopes questions located in the “Explain” section of the “Basic Needs” lesson available through the link in My BackPack- <https://app.acceleratelearning.com/scopes/10569/sections/73943>.  Afterwards, the students will review the following STEMScopes “Explain” activities:   * Picture Vocabulary - <https://app.acceleratelearning.com/scopes/10569/elements/450025> * Stemscopedia - <https://app.acceleratelearning.com/scopes/10569/elements/518895>   **Part 2: The students will watch the Content Connection Video** <https://app.acceleratelearning.com/scopes/10569/elements/548509> and complete the accompanying questions. During the video, the students will be asked to identify different animals they recognize. Afterwards, the teacher will ask the students to group the animals based on their physical features using the document below:    Google Doc link - <https://docs.google.com/document/d/1sNRRBvibpdvys37XEfzASaA1ebEMKL4OXfIcrBb44yw/edit?usp=sharing>  ***Digital Teacher’s Note***: The word document can be distributed to students by saving it to your computer and emailing it through your APS Google account. Also, the document can be converted into a Google Doc and shared within the Google Classroom. Instructions for converting pdf’s and Word docs to Google Docs - <https://www.youtube.com/watch?v=SQQOZlSCZMk>  **Collaborative Practice**  **Elaborate**  **Teacher Note:** Students will complete one of the Elaborate activities to expand their knowledge of the Science phenomena.    **Part I: Plant Claim-Evidence**  The students will view the following video which shows a plant growing without soil - <https://www.youtube.com/watch?v=frLhloFnw98> Afterwards, the students will watch a short video on “**What Do Plants Need to Grow?” -** [**https://www.youtube.com/watch?v=9nGrDl5\_zrc**](https://www.youtube.com/watch?v=9nGrDl5_zrc)**.**  After viewing the video, the teacher will have students write a claim which states if the video is correct or incorrect using the plant in the first video as evidence.  CEE Google Doc - <https://docs.google.com/presentation/d/1LogOyHkDns3g4z9UHsXnVuX5kQZCcx_Ed8WLX0fTXQY/edit?usp=sharing>  **CEE Graphic Organizers**    **Teacher Clarification**: After the students state their claims and support them with evidence, the teacher will clarify that although plant seeds do not need soil to grow, soil provides a base which the roots hold on to as a plant grows bigger. It also provides plants with water and the nutrients they need to be healthy. In turn, some plants become healthy food for us. Nutrients in the soil also help plants grow strong.  **Part II: Animal Video and Sort**  The students will watch the following video - <https://www.youtube.com/watch?v=wOXay8rdzRg>. Afterwards, the students will review how animals acquire their basic needs in the slideshow <https://www.slideshare.net/reille21/what-animals-need> During the video, the students will be asked to identify different animals they recognize. Afterwards, the teacher will ask the students to group the animals recognized from the video and slide show based on their physical features using the document below:    Google Doc link - <https://docs.google.com/document/d/1sNRRBvibpdvys37XEfzASaA1ebEMKL4OXfIcrBb44yw/edit?usp=sharing>  ***Digital Teacher’s Note***: The word document can be distributed to students by saving it to your computer and emailing it through your APS Google account. Also, the document can be converted into a Google Doc and shared within the Google Classroom. Instructions for converting pdf’s and Word docs to Google Docs - <https://www.youtube.com/watch?v=SQQOZlSCZMk>  Part III: Freckle  The students will complete the Ecosystems: Activity – What do living things need? - <https://classroom-demo.freckle.com/#/science-units/1b818b77-320c-488e-8cf2-b6ea5e831179?lesson=1>.   |  |  | | --- | --- | | **Differentiation Supports** | | | Learning Difficulty | * Utilize the Intervention Reader *All About Plants*. This reader presents identical chapter content and vocabulary at a below-grade reading level. It also uses a visual glossary, simplified language, and comprehension aids especially designed for struggling readers. * Refer to the KWL chart when needed. * Students can have extended time for their illustrations. * Students can illustrate the new science word and use it in a sentence orally during their presentation. * Give students the opportunity to work alone or with other classmates. * **UNITS OF STUDY Instructional Strategies for Students with Learning Difficulty** | | *High Achieving* | * Utilize the Above-Level Challenge Reader *What Do You Eat.* This reader enriches and extends chapter concepts.   Students can illustrate multiple new science words and use them in a sentence. | | *English Learners* | * Utilize the ELL/ESOL Support guide which provides additional support for the strategies and activities that appear throughout this chapter. This guide also provides: English-language development activities, activities for building background, scaffold concept development, and vocabulary extensions and language transfers. * Collaborate with ESOL teacher * Students can reference the KWL chart throughout the unit * Peer buddies (pair more proficient ELL with less proficient ELL) * Students can illustrate the new science word and use it in a sentence orally during their presentation. |   **Independent Practice**  **Evaluate**  **Standards Based Assessment(s)**  **Non STEMScopes Assessment: Google Doc link -** [**https://docs.google.com/document/d/1SKl9Wwx-PpkBg3mQZ4wGlyIXsHR9\_J5O32JjvKQ6KKM/edit?usp=sharing**](https://docs.google.com/document/d/1SKl9Wwx-PpkBg3mQZ4wGlyIXsHR9_J5O32JjvKQ6KKM/edit?usp=sharing)  **Students will answer the following Guiding Questions?**   * **What do plants need to survive?**  1. **Light** 2. **Light and Nutrients** 3. **Water, light, and nutrients** 4. **Light, water, nutrients, and air**  * **What do animals need to survive?**  1. **Air** 2. **Air and water** 3. **Food, water, shelter and sky** 4. **Air, water, food and shelter**  * **Do all animals need the same amount of food and water to survive?**  1. **Yes** 2. **No**  * **Are there plants that don’t need much water to survive?**  1. **Yes** 2. **No** 3. **Neither (a) or (b)**  * **Do all plants need the same amount of sunlight to survive?**   **(a) Yes**  **(b) No**  **(c) Neither (a) or (b)**   * **Scenario 1: Joe is a first grade student who said all plants have the same needs. Therefore, he believes they all require the same amount of sunlight to survive. Is Joe correct? Write a claim (if he is correct or incorrect) and site evidence to support your claim.** * **Scenario 2: Jill is a first grade student who also said all animals have the same needs. Therefore, she believes they all require the same amount of water to survive. Is Jill correct? Write a claim (if he is correct or incorrect) and site evidence to support your claim.**   **STEMScopes Assessment:**  **Multiple Choice -** <https://app.acceleratelearning.com/scopes/10569/elements/526492>  **Open Ended Response** - <https://app.acceleratelearning.com/scopes/10569/elements/526575>  **CEE** - <https://app.acceleratelearning.com/scopes/10569/elements/528168> | | | |
| **Online/Print Resources** | | | |
| **HMH Georgia Science**  **Grade 1**  **Unit 6**   |  |  |  | | --- | --- | --- | | **Standard** | **Topic** | **Pages** | | S1L1b | What Do Plants Need? | 185-194 | | S1L1b | Why Do Plants Grow? | 195-196 | | S1L1a | What Are Some Parts of Plants? | 197-206 | | S1L1b | What Do Animals Need? | 207-218 |   Labeling the Parts of a Plant <http://www.crickweb.co.uk/ks1science.html>  Games and Activities About Plants <http://resources.woodlands-junior.kent.sch.uk/revision/science/living/plants.html> (**Note:** The top of the web page is an introduction to plants, and the games are at the bottom of the page.)  Plant and Animal Sort<http://www.crickweb.co.uk/ks1science.html>  ***Suggested Literature***  The Magic School Bus: Hops Home- A Book About Animal Habitats by Patricia Relf  The Magic School Bus: Plants Seeds: A Book About How Living Things Grow by Patricia Relf  Finding Out About Animals by Francis A. Alder  ***Games and Activities***  Plants and Animals Game - Learn about plants & animals as you spot them in an outdoor scene, discover more about where plants and animals live as well as other interesting facts.<http://www.sciencekids.co.nz/gamesactivities/plantsanimals.html>  Plants and Animals in the Local Environment – Students will spot plants and animals in a scene<http://www.bbc.co.uk/schools/scienceclips/ages/6_7/plants_animals_env.shtml>  Plant or Animal? Do you know which food comes from a plant and which food comes from an animal? Sort different foods into either from 'plants' or 'animals'.<http://www.foodafactoflife.org.uk/Activity.aspx?contentId=173&sectionId=63&siteId=14>  Plant and Animal Sort<http://www.crickweb.co.uk/ks1science.html>  Games and Activities About Plants <http://resources.woodlands-junior.kent.sch.uk/revision/science/living/plants.html> (**Note:** The top of the web page is an introduction to plants, and the games are at the bottom of the page.)  Games and Activities About Habitats <http://resources.woodlands-junior.kent.sch.uk/revision/science/living/habitats.html> (**Note:** The top of the web page is an introduction to habitats, and the games are at the bottom of the page.)  Basic Needs – Flipchart on plant and animal needs<http://www.prometheanplanet.com/en-us/Resources/Item/32399/basic-needs#.UceUVsTD8eE> | | | |