K Science Unit 3: Plant Needs (Plant Secrets)

Content Area: **Science**
Course(s):
Time Period: **Marking Period 4**
Length: **9 Weeks**
Status: **Published**

Unit Overview

In this unit, students use observations to understand what animals and plants need to survive. Students explore how animals need things to eat and a safe place to live. They also investigate the needs of plants and how those might be different from the needs of animals.

Standards

Scientific & Engineering Practices

- Students obtain information through observations of different animal behaviors. They use evidence from their observations to argue for their explanation of why animals are acting in these ways. Students act out the behaviors of different animals
- Students obtain information through media about how different animal homes are built. They communicate this information in order to identify patterns in the natural world.
- Students obtain information through observations of different animal behaviors. They use evidence from their observations to argue for why animals are acting in these ways. Students act out the behaviors of different animals.
- Students take a nature walk to carry out an investigation exploring which types of animals live around them and what their homes are like. They analyze and interpret data by using their observations to describe the patterns they see.
- Students carry out an investigation to determine what plants need to grow. They grow radish seeds and make observations of their plants. Students analyze and interpret their observations of what the plants need, but also how they respond to light.
- Students obtain and evaluate information by virtually keeping watch on a log and reporting about the living things that visit it. They communicate information by drawing a log and the animals that would use it as their habitat.

Crosscutting Concepts

- Students study animal behaviors to identify the pattern that all animals have behaviors that include seeking out food to survive.
- Students identify the pattern that all living things live where their needs are met. They recognize that plants, animals, and their surroundings make up a system as parts that work together.
- Students study animal behaviors to identify the pattern that all animals have the behavior seeking out safety to survive.
- Students begin to recognize that plants, animals, and their surroundings make up a system as parts that work together.
- Students study plant growth to identify the pattern that all plants need water. They also

observe the pattern that plants lean towards the light.
- Students consider the cause and effect relationship between the changes people make to their environment and the impact it has on other living things that share their habitat

K-LS1-1	Use observations to describe patterns of what plants and animals (including humans) need to survive.
K-ESS2-2	Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.
K-ESS3-1	Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.
K-ESS3-3	Communicate solutions that will reduce the impact of climate change and humans on the land, water, air, and/or other living things in the local environment.

Materials

Core Materials:

- Mystery Science
  - Why do woodpeckers peck wood?
  - Where do animals live?
  - How can you find animals in the woods?
  - How do animals make their home in the forest?
  - How do plants and trees grow?
  - Why would you want an old log in your backyard?

Supplemental Materials:

- BrainPop resources
- GRC Lessons
- TBSAID
- Nearpod Activities

Technology

Technology Literacy

• 9.4.2.TL.1: Identify the basic features of a digital tool and explain the purpose of the tool (e.g., 8.2.2.ED.1).

• 9.4.2.TL.2: Create a document using a word processing application.

• 9.4.2.TL.3: Enter information into a spreadsheet and sort the information.

• 9.4.2.TL.4: Navigate a virtual space to build context and describe the visual content.

• 9.4.2.TL.5: Describe the difference between real and virtual experiences.

• 9.4.2.TL.6: Illustrate and communicate ideas and stories using multiple digital tools (e.g., SL.2.5.).

Technology - Data & Analysis

8.1.2.DA.1: Collect and present data, including climate change data, in various visual formats.

• 8.1.2.DA.3: Identify and describe patterns in data visualizations.

• 8.1.2.DA.4: Make predictions based on data using charts or graphs.

Technology - Effects on the Natural World

• 8.2.2.ETW.1: Classify products as resulting from nature or produced as a result of technology.

• 8.2.2.ETW.2: Identify the natural resources needed to create a product.

• 8.2.2.ETW.3: Describe or model the system used for recycling technology.

• 8.2.2.ETW.4: Explain how the disposal of or reusing a product affects the local and global

Evidence of Learning/Assessment

Formative Assessment

- Teacher Observation
- Quizzes
- Exit Tickets
- Labs

Summative Assessment

- Benchmark Tests
- Alternative Assessments: Performance Tasks & Projects

Accommodations & Modifications

Special Education

Follow IEP Plan which may contain some of the following examples…

- In class/pull out support with special ed teacher
- Additional time during intervention time
- Preferred seating
- Questions read aloud
- Extended time for completing tasks
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts

- Study Guides
- Limit number of questions
- Scribe

504

Follow 504 Plan which may contain some of the following examples…

- In class/pull out support with special ed teacher
- Additional time during intervention time
- Preferred seating
- Questions read aloud
- Extended time for completing tasks
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Study Guides
- Limit number of questions
- Scribe

ELL

- Translation device/dictionary
- In class/pull out support with ESL teacher
- In class/pull out support with special ed teacher
- Additional time during intervention time
- Preferred seating
- Questions read aloud
- Extended time for completing tasks
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Study Guides
- Limit number of questions
- Scribe

At-risk of Failure

- Extra time during intervention
- In class/pull out support with special ed teacher
- Additional time during intervention time
- Preferred seating
- Questions read aloud
- Extended time for completing tasks
- Graphic organizers
- Vocabulary support
- Mnemonic devices
- Songs/videos to reinforce concepts
- Study Guides
- Limit number of questions

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Gifted & Talented

- Independent projects
- STEM Projects

Interdisciplinary Connections

Connections to NJSLS - English Language Arts

• W.K.7 Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (K-LS-1)

Connections to NJSLS - Mathematics

• K.MD.A.2 Directly compare two objects with a measurable attribute in common, to see which object has “more of/less of” the attribute, and describe the difference. (K-LS-1)

Career Readiness, Life Literacies, and Key Skills

Critical Thinking and Problem Solving:

• 9.4.2.CT.1: Gather information about an issue, such as climate change, and collaboratively brainstorm ways to solve the problem (e.g., K-2-ETS1-1, 6.3.2.GeoGI.2).

• 9.4.2.CT.2: Identify possible approaches and resources to execute a plan (e.g., 1.2.2.CR1b, 8.2.2.ED.3).

• 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive).

Career Ready Practices

- CRP6. Demonstrate creativity and innovation.
- CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.