May K Unit 3: Plants and Animals

Content Area: **Science**
Course(s):
Time Period: **May**
Length: **6-8 Weeks**
Status: **Published**

Unit Overview

This unit explores the interaction between plants and Animals.

Enduring Understandings

Plants and animals depend upon one another to survive.

Essential Questions

How do plants and animals interact and affect their survival?

Instructional Strategies & Learning Activities

- Unit 3: Plants and Animals

  Student Edition

  Plants and Animals: Unit Opener

  The Unit Opener for "Plants and Animals" introduces the unit project, Animal Changes. During this unit project, children will:
  - Plan and build a model bird's nest and observe how doing so has changed the environment.
  - Collect data to use as evidence to answer a question.
  - Construct an argument using evidence to support a claim.

  Launch

- Unit 3: Plants and Animals

  Student Edition

  Plants and Animals: Unit At a Glance

  Unit at a Glance for "Plants and Animals" includes the unit table of contents, unit vocabulary words,

and the vocabulary game, Guess the Word! In this unit, children will:

- use observations to describe patterns of what plants and animals need to survive;
- analyze data by collecting, recording, and sharing observations;
- use a model to show the relationship between the needs of different plants or animals and the places they live;
- use patterns as evidence to support claims;
- construct an argument supported by evidence for how plants and animals change the environment to survive.

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- Unit 3: Plants and Animals
  Teacher Edition

  Plants and Animals: Unit Opener

  The Unit Opener introduces the unit "Plants and Animals" and the unit project, Animal Changes.

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  Unit 3: Plants and Animals
- Teacher Edition

  Plants and Animals: Integrating the NGSS* Three Dimensions of Learning

  This section details the Performance Expectations covered in the unit "Plants and Animals."

- Unit 3: Plants and Animals
  Teacher Edition

  Plants and Animals: 3D Unit Planning

  Planning resources are available for each lesson and hands-on activity in the unit "Plants and Animals."

- Unit 3: Plants and Animals
  Teacher Edition

  Plants and Animals: Differentiate Instruction

  This page provides differentiated support for this unit's Science & Engineering Leveled Readers, "What Can We Learn About Animals?" "What Are Plants?" "Animal Groups," and "Inside Seeds?"
  Launch

- Unit 3: Plants and Animals
  Teacher Edition

  Plants and Animals: Connecting with NGSS

  These opportunities for informal science learning provide local context and extend and enhance concepts from the unit "Plants and Animals."
  LaunchUnit 3: Plants and Animals

- Plants and Animals: Unit Pretest

  The Unit Pretest for "Plants and Animals" focuses on prerequisite knowledge. The test is composed primarily of DOK 1 items that evaluate student preparedness for the upcoming content.

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  Unit 3: Plants and Animals
  - Home Letter

    Plants and Animals: Home Letter

    This is the home letter for the unit "Plants and Animals."
    Launch

  - Unit 3: Plants and Animals
    Student Edition

    Plants and Animals: Unit Performance Task: Do Plants Need Air?

    During the Performance Task "Do Plants Need Air?" children will use observations to determine patterns that can be used as evidence that plants need air to live and grow.
    Launch

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    Unit 3: Plants and Animals

    Student Edition

    Plants and Animals: Unit Review

    The Unit Review assesses student understanding of key ideas and concepts from the unit "Plants and Animals."
    Launch

  - Unit 3: Plants and Animals
  - You Solve It

    Grow a Garden!

    In Grow a Garden, students design a model garden for plants and earthworms. They determine what the plants and earthworms need in the model in order to survive. Students then manipulate the model by adding water and observe the over time to see how the living things change their environment.
    Launch

  - Unit 3: Plants and Animals
    Teacher eBook

    Plants and Animals: Unit Review

    The Unit Review assesses student understanding of key ideas and concepts from the unit

"Plants and Animals."

- Unit 3: Plants and Animals
  Leveled Readers - Blue

  On-Level: What Can We Learn About Animals?

  The leveled reader "What Can We Learn About Animals?" is designed for on-level readers and can be used to enrich key concepts from the unit "Plants and Animals."

- Unit 3: Plants and Animals
  Leveled Readers - Blue

  On-Level: What Are Plants?

  The leveled reader "What Are Plants?" is designed for on-level readers and can be used to enrich key concepts from the unit "Plants and Animals."

- Unit 3: Plants and Animals
  Leveled Readers - Green

  Enrichment: Animal Groups

  The leveled reader "Animal Groups" is designed for above-level readers and can be used to extend key concepts from the unit "Plants and Animals."

- Unit 3: Plants and Animals
  Leveled Readers - Green

  Enrichment: Inside a Seed!

  The leveled reader "Inside a Seed!" is designed for above-level readers and can be used to extend key concepts from the unit "Plants and Animals."

  Unit 3: Plants and Animals
  - Leveled Readers - Red

    Extra-Support: What Can We Learn About Animals?

    The leveled reader "What Can We Learn About Animals?" is designed for below-level readers and can be used to reinforce key concepts from the unit "Plants and Animals."

  - Unit 3: Plants and Animals
    Leveled Readers - Red

    Extra-Support: What Are Plants?

    The leveled reader "What Are Plants?" is designed for below-level readers and can be used to reinforce key concepts from the unit "Plants and Animals."

- Unit 3: Plants and Animals
  Leveled Readers Teacher's Guide

  Topic 9: Animals

  The Leveled Readers Teachers Guide provides teaching strategies and support (as well as reproducible English and Spanish worksheets) for the Unit 3 readers "What Can We Learn About Animals?" and "Animal Groups." On-Level and Extra-Support worksheets focus on vocabulary development, while Enrichment worksheets reinforce and enrich content.

- Unit 3: Plants and Animals
  Leveled Readers Teacher's Guide

  Topic 10: Plants

  The Leveled Readers Teachers Guide provides teaching strategies and support (as well as reproducible English and Spanish worksheets) for the Unit 3 readers "What Are Plants?" and "Inside a Seed!" On-Level and Extra-Support worksheets focus on vocabulary development, while Enrichment worksheets reinforce and enrich content.

- Unit 3: Plants and Animals
- Assessment Guide

  Plants and Animals: Unit Test

  The Unit Test for "Plants and Animals" assesses students' ability to apply knowledge to solve problems and explain phenomena in relation to the Performance Expectations associated with the unit. In this unit, children:
  - use observations to describe patterns of what plants and animals need to survive;
  - analyze data by collecting, recording, and sharing observations;
  - use a model to show the relationship between the needs of different plants or animals and the places they live;
  - use patterns as evidence to support claims;
  - construct an argument supported by evidence for how plants and animals change the environment to survive.

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- Unit 3: Plants and Animals
  Unit Project Worksheet

  Plants and Animals: Unit Project: Animal Changes

  This is the Unit Project worksheet for "Animal Changes." During this project, children will:
  - Plan and build a model bird's nest and observe how doing so has changed the environment.
  - Collect data to use as evidence to answer a question.

- Construct an argument using evidence to support a claim.

Unit 3: Plants and Animals

- Unit Performance Task Worksheet

Plants and Animals: Unit Performance Task: Do Plants Need Air? (Editable)

This is the editable Unit Performance Task worksheet for "Do Plants Need Air?" During this task, children will use observations to determine patterns that can be used as evidence that plants need air to live and grow.

Integration of Career Exploration, Life Literacies and Key Skills

	Different types of jobs require different knowledge and skills.
9.1.2.CAP.1	Make a list of different types of jobs and describe the skills associated with each job.
	Critical thinkers must first identify a problem then develop a plan to address it to effectively solve the problem.
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.3	Use a variety of types of thinking to solve problems (e.g., inductive, deductive).
CRP.K-12.CRP1	Act as a responsible and contributing citizen and employee.
CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP4	Communicate clearly and effectively and with reason.
CRP.K-12.CRP6	Demonstrate creativity and innovation.
CRP.K-12.CRP8	Utilize critical thinking to make sense of problems and persevere in solving them.
CRP.K-12.CRP12	Work productively in teams while using cultural global competence.

Technology and Design Integration

Smartboard lessons and technology.

Online Student Textbook

Online Student Simulations

	Individuals collect, use, and display data about individuals and the world around them.
	Data can be used to make predictions about the world.
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.

Interdisciplinary Connections

LA.RI.K.1	With prompting and support, ask and answer questions about key details in a text.
LA.RI.K.2	With prompting and support, identify the main topic and retell key details of a text.
LA.RI.K.3	With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.
LA.RI.K.4	With prompting and support, ask and answer questions about unknown words in a text.
LA.RI.K.5	Identify the front cover, back cover, and title page of a book.
LA.RI.K.6	Name the author and illustrator of a text and define the role of each in presenting the ideas or information in a text.
LA.RI.K.7	With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).
LA.RI.K.8	With prompting and support, identify the reasons an author gives to support points in a text.
LA.RI.K.9	With prompting and support, identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).
LA.RI.K.10	Actively engage in group reading activities with purpose and understanding.
MA.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.

Differentiation

- Understand that gifted students, just like all students, come to school to learn and be challenged.
- Pre-assess your students. Find out their areas of strength as well as those areas you may need to address before students move on.
- Consider grouping gifted students together for at least part of the school day.
- Plan for differentiation. Consider pre-assessments, extension activities, and compacting the curriculum.
- Use phrases like "You've shown you don't need more practice" or "You need more practice" instead of words like "qualify" or "eligible" when referring to extension work.
- Encourage high-ability students to take on challenges. Because they're often used to getting good grades, gifted students may be risk averse.

- **Definitions of Differentiation Components**:

    - Content – the specific information that is to be taught in the lesson/unit/course of instruction.
    - Process – how the student will acquire the content information.
    - Product – how the student will demonstrate understanding of the content.
    - Learning Environment – the environment where learning is taking place including physical location and/or student grouping

Differentiation occurring in this unit:

See differentiation suggestions in Instruction above, for struggling and advanced learners.

Modifications & Accommodations

Refer to QSAC EXCEL SMALL SPED ACCOMMOCATIONS spreadsheet in this discipline.

Modifications and Accommodations used in this unit:

IEP and 504 accommodations will be utilized.

Benchmark Assessments

Benchmark Assessments are given periodically (e.g., at the end of every quarter or as frequently as once per month) throughout a school year to establish baseline achievement data and measure progress toward a standard or set of academic standards and goals.

Schoolwide Benchmark assessments:

Aimsweb benchmarks 3X a year

Linkit Benchmarks 3X a year

DRA

Additional Benchmarks used in this unit:

Pre-test followed by interactive assessments

Formative Assessments

Assessment allows both instructor and student to monitor progress towards achieving learning objectives, and can be approached in a variety of ways. **Formative assessment** refers to tools that identify misconceptions, struggles, and learning gaps along the way and assess how to close those gaps. It includes effective tools for helping to shape learning, and can even bolster students' abilities to take ownership of their learning when they understand that the goal is to improve learning, not apply final marks (Trumbull and Lash, 2013). It can include students assessing themselves, peers, or even the instructor, through writing, quizzes, conversation, and more. In short, formative assessment occurs throughout a class or course, and seeks to improve student achievement of learning objectives through approaches that can support specific student needs (Theal and Franklin, 2010, p. 151).

Formative Assessments used in this unit:

See assessments embedded in Instruction above.

Summative Assessments

summative assessments evaluate student learning, knowledge, proficiency, or success at the conclusion of an instructional period, like a unit, course, or program. Summative assessments are almost always formally graded and often heavily weighted (though they do not need to be). Summative assessment can be used to great effect in conjunction and alignment with formative assessment, and instructors can consider a variety of ways to combine these approaches.

Summative assessments for this unit:

See assessments embedded in Instruction above.

Instructional Materials

HMH Science Demensions program materials

Misc. items for hands on labs

Standards

K-LS1-1.1.1	Patterns in the natural and human designed world can be observed and used as evidence.
K-LS1-1.LS1.C.1	All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow.