Unit 2 - Interdependent Relationships in Ecosystems: Animals and Plants in their environment

Content Area: **Template**
Course(s):
Time Period: **Full Year**
Length: **Full Year**
Status: **Published**

Unit Overview

Students will understand that animals and plants are all around us. Students will learn about animals and plants, distinguish between living and nonliving things and their needs. The students will identify what animals and plants look like and what they need to survive. Hibernation, animal babies and adaptation to their surroundings will be identified.

Enduring Understandings

Animals change and grow as they age. The world surrounding animals contributes to their growth and changes.
Animals live in different habitats. Some live in burrows, trees, nests, logs, caves and forests. During the winter some animals hibernate or adapt.
Plants and animals need water, food, and sunlight(plants) to grow and survive.
A living thing can breathe, eat, drink, and grow. A nonliving thing does not need water or food to survive.
Nonliving things do not breathe.

Essential Questions

How do animals change and grow?
Where do animals live?
What do plants and animals need to survive?
What is the difference between living and nonliving things?

Learning Objectives

Use observations to describe patterns of what plants and animals (including humans) need to survive.
Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live.
Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.
Describe how a map can help design a zoo.
Career Exploration – Being a zookeeper.

Standards: Content

K-PS3-1	Make observations to determine the effect of sunlight on Earth's surface.
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 humans on the land, water, air, and/or other living things in the local environment.

Standards: Interdisciplinary

L.WF.K.2.C	Spelling VC (vowel-consonant) [at, in] and CVC [pet, mud] words with short vowel sounds.
L.WF.K.2.D	Writing frequently used words accurately.
L.WF.K.2.E	Attempting phonetic spellings of unknown words.
L.WF.K.2.F	Writing initial and final consonant blends (must, slab, plump).
L.WF.K.3.C	Capitalize the first word in a sentence, capitalize proper names, and include spaces between words.
L.WF.K.3.D	Use end punctuation.
L.WF.K.3.G	Supply the "who," "is doing," "what," in a subject-verb-object sentence frame.
RI.CR.K.1	With prompting and support, ask and answer questions about key details in an informational text (e.g., who, what, where, when, why, how).
RI.CI.K.2	With prompting and support, identify the main topic and key details of an informational text (e.g., who, what, where, when, why, how).
RI.IT.K.3	With prompting and support, describe the connection between two individuals, events, ideas, or pieces of information in a text.
RI.AA.K.7	With prompting and support, identify the reasons an author gives to support points in a text.
RI.CT.K.8	With prompting and support, identify basic similarities in and differences between two informational texts on the same topic (e.g., characters, experiences, illustrations, descriptions, or procedures).
W.IW.K.2.A	Introduce a topic.
W.IW.K.2.B	Develop the topic with at least two facts or other information and examples related to the topic, including pictures.
W.SE.K.6	With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.
SL.ES.K.3	Ask and answer questions in order to seek help, get information, or clarify something that is not understood.
SL.PI.K.4	Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.

SL.AS.K.6 Speak audibly and express thoughts, feelings, and ideas clearly.

Assessment Evidence

Formative	Teacher observations, Class discussions, Lab Activities, Key concepts and vocabulary quizzes, Science Starter's/Do Nows, Open Ended Responses, Modeling, Simulations, Innovators Monthly Research, Vocabulary Responses, Exit Questions, Interactive Digital Assessments embedded in Exploring Science Digital Book
Summative	In correlation with the NGSS, students must demonstrate the following as summative assessments: 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 and animals (including humans) and the places they live. K-ESS3-3., Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment. Other summative assessments will include but are not limited to: projects, summative tests, lab skills demonstrations, vocabulary quizzes.
Alternative & Benchmark	Alternative - Read to the student and chart oral responses. Word banks, sentence frames, oral responses, graphic organizers, observations, portfolios of student work, orally administered assessments, and anecdotal notes. Benchmark - Teacher generated unit assessments, projects/labs, checkpoint assessments, classroom observations
Assessment Evidence Resource	

Instructional Resources

Smartboard, Computers, Websites and digital interactives/models, Multi-media presentations, Video Streaming, Brain Pop, Middle School Science, Generation Genius Digital Curriculum, Amplify Digital Curriculum, Microsoft 365, Primary and Secondary Source Documents, Assorted lab materials, crayons, markers, glue sticks, construction paper, thermometers, scales, Handwashing - https://www.youtube.com/watch?v=w_RwRoiwe6Q

Instructional Resource List

Curricular Mandates

Below are the curricular requirements as defined in NJ Administrative Code and Statute

	Amistad		Diversity, Equity, and Inclusion
	Holocaust		LGBT and Disabilities (Grades 6-12)
X	Climate Change		Asian American & Pacific Islander

Social Emotional Learning (SEL) Competencies

NJ Social and Emotional Learning Competencies & Sub-Competencies

	Self-Awareness	X	Relationship Skills
X	Responsible Decision-Making	X	Social Awareness
	Self-Management		

21st Century Skills & Themes

X	Global and Cultural Awareness		Technology Literacy		Planning and Budgeting
X	Creativity and Innovation		Financial Institutions		Risk Management and Insurance
	Information and Media Literacy		Digital Citizenship		Economic and Government Influences
X	Critical Thinking and Problem Solving		Credit Profile	X	Career Awareness and Planning
	Civic Financial Responsibility		Financial Psychology		