

Unit 1: Environment and Life (LLD)

Content Area: **Science**
Course(s):
Time Period: **Trimester**
Length: **Trimester 1**
Status: **Published**

General Overview, Course Description or Course Philosophy

Unit 1: Environment and Life in the LLD setting takes a look at the general education curriculum and scales in down for special education students. This allows the students in the LLD classroom setting to learn in the appropriate setting while exploring environments and the animals and plants that live in different environments, as well as the interaction between humans and the environment.

OBJECTIVES, ESSENTIAL QUESTIONS, ENDURING UNDERSTANDINGS

Objectives and Enduring Understandings:

- Students develop an understanding that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.
- Students will study organism adaptation, relationships between organisms in the environment, ways in which humans impact the environment, and how light, water, and temperature affect organisms and the environment.

Essential Questions:

- How do plants structure support their function?
- How living things obtain water?
- How does light effects organisms in their environment?

CONTENT AREA STANDARDS

3-LS4-2	Use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.
3-LS4-3	Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.
3-LS4-4	Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.
4-LS1-1	Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.
4-LS1-2	Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.

RELATED STANDARDS (Technology, 21st Century Life & Careers, ELA Companion Standards are Required)

LA.W.4.1	Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
LA.SL.4.5	Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.
MA.4.G.A.3	Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.
TECH.9.4.5.CI.3	Participate in a brainstorming session with individuals with diverse perspectives to expand one's thinking about a topic of curiosity (e.g., 8.2.5.ED.2, 1.5.5.CR1a).
TECH.9.4.5.CT.1	Identify and gather relevant data that will aid in the problem-solving process (e.g., 2.1.5.EH.4, 4-ESS3-1, 6.3.5.CivicsPD.2).

STUDENT LEARNING TARGETS

Declarative Knowledge

Students will understand that:

- Sometimes the differences in characteristics between individuals of the same species provide advantages in surviving, finding mates, and reproducing.
- For any particular environment, some kinds of organisms survive well, some survive less well, and some cannot survive at all.
- When the environment changes in ways that affect a place's physical characteristics, temperature, or availability of resources, some organisms survive and reproduce, others move to new locations, yet others move into the transformed environment, and some die
- plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction.
- different sense receptors are specialized for particular kinds of information, which may be then processed by the animal's brain.
- organisms can adapt to their environment.

Procedural Knowledge

Students will be able to:

- use evidence to construct an explanation for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.
- construct an argument with evidence that in a particular habitat some organisms can survive well, some

survive less well, and some cannot survive at all.

- make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.
- construct an argument that plants have internal and external structures that function to support survival, growth, behavior, and reproduction.
- construct an argument that animals have internal and external structures that function to support survival, growth, behavior, and reproduction.
- use a model to describe that animals receive different types of information through their senses.
- use a model to describe that animals process the information in their brain.
- use a model to describe that animals respond to the information in different ways.
- identify that the environment includes all the living and non-living aspects of a geographical area.
- investigate that different environments support different types of life.
- investigate individual differences that allow adaptation to occur.
- identify that water is essential for the survival of organisms.
- Add audio recordings and visual displays to presentations when appropriate to enhance the development of main ideas or themes.
- Write opinion pieces on topics or texts, supporting a point of view with reasons and information.
- Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts.
- Identify line-symmetric figures and draw lines of symmetry.

EVIDENCE OF LEARNING

Formative Assessments

- Lab Activities
- Student predictions, observations, and questions
- Teacher questions and discussion
- Observe students as they apply new concepts and skills
- Evidence of students changed thinking and behaviors
- Students answering questions using observations, evidence, and previous accepted explanations
- Students asking related questions that encourage future investigations

- Monitor students working in groups
- Listen to whole class conversations to check for understanding
- Completing tasks

Summative Assessments

Benchmark Assessments

- Multiple Choice Assessment administered at the end of each trimester (T1, T2, T3)

Alternative Assessments

- Oral Presentations
- Questions for Comprehension
- Performance Tasks
- Scientific Journals/Notebooks
- Self-Assessment
- WebQuests

RESOURCES (Instructional, Supplemental, Intervention Materials)

- Teacher Edition
- Student Lab Manual
- Student Science Notebook
- Graphic organizers
- Videos
- Environment and Living Things play cards
- How to make bread pdf
- How an aluminium can is made pdf
- Who am I? pdf

INTERDISCIPLINARY CONNECTIONS

- Integrate quantitative or technical information expressed in words in a text. Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.

- Compare and contrast the information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.
- Experimentation
- Social Emotional Learning
- Geoscience
- Sustainability

ACCOMMODATIONS & MODIFICATIONS FOR SUBGROUPS

See link to Accommodations & Modifications document in course folder.

*In addition to IEP Accommodations & Modifications:

- Restate and review directions
- Student restates directions or information
- Oral responses
- Small group/ one to one
- Additional time
- Concrete examples
- Extra visuals
- Support auditory information with visuals
- Space for movement or breaks
- Extra verbal cues and prompts