



Plants, Animals and Our Environment

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Plants, Animals and our Environment
Unit Introduction

1. Teaching and Learning Context

- A. Self-contained classroom of 22 students
 - B. Kindergarten
 - C. Students are ages 4, 5 and 6
- II. Describe students in categories below who are in the class.
- A. 1 Hispanic student
 - B. Title I School
 - C. 7 with IEPs
 - D. 1 Gifted
 - E. No students have 504 Modifications
 - F. The remainder of the class are low performing based on the Kindergarten GRADE Reading test given in September.
- III. List the types of differences in the class.
- A. Many of my students could be classified as learning the English Language even though English is the predominately spoken language; their vocabulary is below age-level.
 - B. Half of my students live in a rural area, however very few of these children would be considered “farm families”. The other half live in governmental housing.
 - C. Achievement/Developmental Levels are below average based on standard assessment data.
- IV. Indicate the number of students for each pattern of achievement.
- A. 20 students below grade level
 - B. 2 students on grade level
 - C. 0 students above grade level
- V. Describe the classroom setting
- A. Self-Contained
 - B. Collaborative/Resource (Strategic teachers work with students in the classroom in addition to giving resource time based on needs of students.)
 - C. Read-To-Achieve educator works with students

- VI. For this class the following resources will be used: Interactive Smart Board; Computer, trade library books for gaining interest of topic,
- VII. Describe supportive help available.
 - A. The Instructional Assistant will assist the students with labeling.
 - B. The Resource Teacher will assist by rephrasing, rereading and scribing for individual students.
 - C. The Classroom Teacher will lead in teaching the lesson.

2. Introduction of this Unit of Study

A. Basic Needs of Plants and Animals

B. Plants and Animals are living things and require water, food and air.

Basic needs of organisms are required for survival and the environment plays an important role.

C. (KY Core Content & Program of Studies – www.education.ky.gov/)

- 5.1** Students use critical thinking skills such as analyzing, prioritizing, categorizing, evaluating, and comparing to solve a variety of problems in real-life situations.
- 6.2** Students use what they already know to acquire new knowledge, develop new skills, or interpret new experiences.
- 6.3** Students expand their understanding of existing knowledge by making connections with new knowledge, skills, and experiences.
- 1.1** Students use reference tools such as dictionaries, almanacs, encyclopedias, and computer reference programs and research tools such as interviews and surveys to find the information they need to meet specific demands, explore interests, or solve specific problems.
- 2.2** Students identify, analyze, and use patterns such as cycles and trends to understand past and present events and predict possible future events.
- 2.4** Students use the concept of scale and scientific models to explain the organization and functioning of living and nonliving things and predict other characteristics that might be observed.
- 2.2** Students identify, analyze, and use patterns such as cycles and trends to understand past and present events and predict possible future events.
- 2.6** Students understand how living and nonliving things change over time and the factors that influence the changes.

C. Statement of Objectives for the Unit

- 1. Students will draw and label the basic needs of animals.**
- 2. Students will draw and label the basic needs of plants.**
- 3. Students will understand the basic needs of plants and animals are not only the same, but are interrelated.**
- 4. Students will know that the environment plays an important role in the survival of organisms.**

Lesson 1

Unit Title: Plants, Animals and Their Environment

Lesson #1 Basic Needs of Animals

Lesson Length: 30 minutes

Context

I'm teaching this unit to meet the core content guidelines required for kindergarten. This lesson presents a background for making sure my students can identify the basic needs of animals and plants.

Students' prior knowledge The students' prior knowledge is a variation between having experience raising pets and knowing the basic needs of their pets and students who have no relevant experiences with animals. To assess their prior knowledge, students will draw a picture showing the three basic needs of animals.

Objectives

Students will be able to identify the three basic needs of animals.

Students will be able to discuss the three basic needs of animals and begin to understand that the basic needs for animals and plants are similar.

Connections

SC-EP-3.4.1

Students will explain the basic needs of organisms.

Assessment Plan

Objective #	Type Assessment	Description of Assessment	Depth of Knowledge Level	Adaptations &/or Accommodations
Objective 1	Formative	Draw & label the basic needs of animals	1	Record ideas visually

Resources, media, & technology

(Book about caring for pets)

Chart Paper for KWL chart

Learning Logs

Procedures

1. First, we will have a pre-test to determine how much knowledge the students have regarding the basic needs of animals. After the pre-test, students who have pets discuss why they must be responsible when caring for pets (making sure to get them food, and water). Ask the children who is responsible for caring for the needs of wild animals. Students will generalize that the only difference is that pets are usually dependent on their owners for their basic needs. The teacher will make assist the class in making a KWL chart to show what the students know about the basic needs. After the lesson, students will draw and label the three basic needs of animals in their learning logs.
2. Most children have had some experience with pets. By using pets as the topic, it creates an interest and most children are able to make a real-life connection that all animals have the same basic needs.
Since this is a pre-test to show prior knowledge, I would want to see which students who have not had any prior experiences with animals. These students can be paired with more knowledgeable students in future lessons.

Instructional Objective

Students will be able to **draw from memory** a picture that illustrates the needs of animals scoring at least a 3 on a 4-point rubric.

Unit Title: Basic Needs of Plants and Animals

Lesson 2: “ A Tree is Growing”

Lesson Length: 30 minutes

Context

Students will make the connection that plants and animals have similar needs.

From the previous lesson, students will have prior knowledge that animals have 3 basic needs.

Objectives

Students will be able to create a Venn Diagram showing the needs that are the same for plants and animals.

Students will identify the basic needs of both plants and animals. This will be demonstrated by students “building” a large Venn Diagram using pictures and words.

Connections

SC-EP-3.4.1

Students will explain the basic needs of organisms.

Assessment Plan

1. Build a Venn-diagram comparing and contrasting the needs of both plants & animals.
2. Students will draw a picture identifying the basic needs of trees.
3. Students will write or draw in journals describing the basic needs of trees.

Objective for the scoring rubric is listed below:

Students will be expected to score a three or four on the attached rubric. Teacher will discuss how the student can achieve this score by modeling.

Resources, media, & technology

Large laminated Venn diagram with pictures of sun, air, food, water, nutrients, animals & plants.

“A Tree is Growing” by Arthur Dorros, Scholastic Book Clubs

Procedures

1. Quickly review the basic needs of animals.
2. Read the book “A Tree is Growing” by Arthur Dorros (Scholastic). Encourage the students to use predicting strategies while reading the book.
3. After reading the book, discuss the information we’ve learned especially looking for what trees need to live.
4. Students will chart the needs of trees/plants.
5. We will then compare and contrast needs of plants and animals using a Venn diagram. As a class, we will build a Venn Diagram to illustrate that plants and animals needs are similar. Students will draw or cut and paste pictures to place on the Venn diagram about the information learned from the book “A Tree is Growing”.
6. Students will go outside to look at and discuss the basic needs of trees.

In order to meet the individual needs of the students within the classroom predicting strategies will be incorporated into the lesson. The information will be read more than one time to reinforce the information from the book “A Tree is Growing”. Students will be expected to share ideas and thoughts about the information.

Sample Instructional Objective

1. Students will be able to draw *from memory* a picture that illustrates the basic needs of trees scoring at least a 3 on a 4-point rubric.
2. Students will describe *in journal entries* the role of sunlight, air and water in their environment, scoring at least a 3 on a 4-point rubric.

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Unit Title: Basic Needs of Plants and Animals

Lesson Title: The Environment and Me; Lesson 3 Lesson Length: 30 minutes
daily over a course of 2 weeks

Context

I'm teaching this unit to meet the core content guidelines required for kindergarten. This lesson presents a background for making sure my students can identify the basic needs of animals and plants and their survival is dependent upon the environment.

Objectives

The students will understand that if certain environmental conditions are not adequate, plants and animals will not be able to survive.

Connections

- 6.3** Students expand their understanding of existing knowledge by making connections with new knowledge, skills, and experiences.
- 2.2** Students identify, analyze, and use patterns such as cycles and trends to understand past and present events and predict possible future events.
- 2.4** Students use the concept of scale and scientific models to explain the organization and functioning of living and nonliving things and predict other characteristics that might be observed.

Assessment Plan

Students will be expected to score a 3 or 4 on the rubric listed below.

Resources, media, & technology

4 healthy plants

Containers to place the plants in to set up environmental conditions need to be provided.

Rubric for assessment

Procedures

1. The teacher will bring four healthy plants to the classroom. The students will discuss why the plants are healthy (three basic needs have been met). Students will also use descriptive words describing the plants. Using prediction strategies, they will then predict what will happen to the plants if each of the basic needs were not met.
2. Students will record their knowledge in their individual learning logs. The teacher will also have a large class chart to visually represent the knowledge.
3. Plants will be placed into four environments: one with all the basic needs, one with no light; no water and no air. Over a period of time, students will observe and record their findings. As this happens, discussions will be made to relate that if animals were faced with the same deficit, questions would be asked “what if an animal had no air, water, or food”.

Instructional Objective

Students will be able to **observe and draw** pictures that illustrates the change in plants when basic needs are not met, scoring at least a 3 on a 4-point rubric.

Students will **describe** *in journal entries* the role of water, air, and food as it relates to plants and animals, scoring at least a 3 on a 4-point rubric.

Critical student characteristics/attributes (beyond Teaching & Learning Context)

Objectives

Student-centered & Observable (see examples attached)

What will students demonstrate as a result of this lesson?

Connections

Connect objectives to KY Program of Studies and Core Content (no more than 2 or 3)

If not obvious, explain how objectives and CC/POS are related

Assessment Plan (use table)

How will each objective be assessed?

Include copies of instruments and rubrics.

Sample Assessment Plan Organizer

Objective #	Type Assessment	Description of Assessment	Depth of Knowledge Level	Adaptations &/or Accommodations
Objective 1	Formative	Brainstorm	1	Record ideas visually

Resources, media, & technology

List materials and equipment needed

Attach copies of print materials

List technology resources including hardware, software, Internet URLs
Don't forget to cite sources used to develop this lesson

Procedures

Describe

1. strategies and activities you will use to involve students and accomplish your objectives
2. how you will trigger prior knowledge
3. how you will adapt strategies to meet individual student needs and the diversity in your classroom.

5. Sample Instructional Objective

Unit objectives should be more comprehensive

KEY: Performance verbs are highlighted, criterion are underlined and *conditions are in italics*.

Students will be able to draw *from memory* a picture that illustrates the needs of animals scoring at least a 3 on a 4-point rubric.

Students will describe *in journal entries* the role of producers, consumers, and decomposers in their environment, scoring at least a 3 on a 4-point rubric.

Students will diagram the process of photosynthesis *explaining each step* of the process, scoring at least a 3 on a 4-point rubric.