

Naturalist Outreach

Lesson Plan



Grades: K-5 Date:

Unit/Topic/Lessons: *Beneficial Insects*

Objectives

Student will be able to:
Observe and make connections to ecosystems, food webs, and how humans effect the environment around them.

Correlation to State & National Documents

Alabama Course of Study: Science

K.3,4,5,6
2.11
3.5,6
5.10,11

National Science Standards:

K-4 Life Science:
Characteristics of organisms
Life cycles of organisms
Organisms and environments
5-8 Life Science:
Populations and ecosystems

COS Content Standard

K.3- Distinguish between living and nonliving things and verify what living things need to survive (e.g., animals needing food, water, and air; plants needing nutrients, water, sunlight, and air).
K.4- Gather evidence to support how plants and animals provide for their needs by altering their environment (e.g., tree roots breaking a sidewalk to provide space, red fox burrowing to create a den to raise young, humans growing gardens for food and building roads for transportation).
K.5- Construct a model of a natural habitat (e.g., terrarium, ant farm, diorama) conducive to meeting the needs of plants and animals native to Alabama.
K.6- Identify and plan possible solutions (e.g., reducing, reusing, recycling) to lessen the human impact on the local environment.*
2.11- Examine and test solutions that address changes caused by Earth's events (e.g., dams for minimizing flooding, plants for controlling erosion).*
3.5- Obtain and combine information to describe that organisms are classified as living things, rather than nonliving things, based on their ability to obtain and use resources, grow, reproduce, and maintain stable internal conditions while living in a constantly changing external environment.
3.6- Create representations to explain the unique and diverse life cycles of organisms other than humans (e.g., flowering plants, frogs, butterflies), including commonalities such as birth, growth, reproduction, and death.
5.10- Construct and interpret models (e.g., diagrams, flow charts) to explain that energy in animals' food is used for body repair, growth, motion, and maintenance of body warmth and was once energy from the sun.
5.11- Create a model to illustrate the transfer of matter among producers; consumers, including scavengers and decomposers; and the environment.

Materials/Resources

x	Hands-On Materials	X
x	Multimedia Materials	
	Computers/notebooks/PDA	
	Web sites	x
	Software	x
	Overhead Masters	
	Workbook/Handouts	x
x	Other Equipment/Supplies	x
	Guest Speakers	x
	Maps	x
	Lab equipment	

Assessment

X	Homework
	Test/Quiz
	Project
x	Participation
x	Class work
	Presentation
x	Oral Responses
x	Teacher Observation
x	Self Evaluation
x	Group Evaluation
	Portfolio
	Other (Journal Entry)

Text:

Equipment needed

Instructions

Grouping Strategies (small group, pairs)

Old bottles, bamboo, cinderblocks, or other reusable material.	Discuss how insects play an important role in the environment, they are food for other animals, they pollinate plants, they are decomposers, etc. Focus on the different pollinators and what environments they typically live in. Gather materials, and construct an insect hotel to “simulate an insects environment. Take the hotel outside and over the next few days check on it. Have the students note the types of insects that are living in it, and figure out what they do in the environment. Discuss the importance some of the insects. What do they do? What do they eat? Etc.	Work either as a class or in groups of 5-6 depending on class age and independence level of children.
Assignments	Background/Preparation	Special
<i>Class work:</i> Building an insect hotel/ making observations about where insects typically live.	Teacher should have basic knowledge pollinators/ habitats of insects. Resources: - While We Worry About Honeybees, Other Pollinators Are Disappearing http://blogs.discovermagazine.com/crux/2018/08/03/honeybees-pollinator-really-going-extinct/#.XG-kcehKjIU	Integration with other disciplines: Shapes and Geometry English and Writing
<i>Guided practice:</i>		Remediation Activities:
Reading: Text/ Articles/ Other <i>Articles about beneficial insects</i>		Enrichment Activities/Extensions: Write down your observations about the insects/ have a class discussion about what you have learned.
Writing: Write how an insect interacts with its environment, use you observations in the paper.	- Soldier beetles- https://entomology.ca.uky.edu/ef625	
Homework: Construct a food web that has one of the discussed insects in it.	-How to build an insect home https://www.edenproject.com/learn/for-everyone/how-to-build-an-insect-home	Special Topics/Schedules Testing:___ Activity:___ Assembly:___ Pep Rally:___ Media/PR:___ SAC:___ Career Education:___ Character Ed:___ Adopt-A-School:___ Athletics:___
Technology Integration: PowerPoint: Websites:		
Total Duration: Build from 30 minutes- 45 minutes. Class discussion 30 minutes (or longer over the course of several days) Writing can be turned in the next day or at the end of class.		