

Biodiversity Lesson Plan 5

Using Field Guides to Identify Native Species

Teacher: Elena Martin

Grade Level: 9-12

Date: Summer 2016

AZ Science Standard:	<i>Strand 1: Inquiry Process. Concept 1: Observations, Questions and Hypotheses. PO 1. Evaluate scientific information for relevance to a given problem.</i>
AZ College and Career Readiness Standards:	<i>RST 9-10.RST.1. Cite specific textual evidence to support analysis of science and technical texts, attending to precise details of explanations or descriptions</i>
Enduring Understandings/ Essential Questions:	Biodiversity (the variety of life on Earth): All Ecosystems contain a variety of life that is interdependent. How is biodiversity affected by human behavior? How does decreased/increased biodiversity affect life on Earth? How are humans dependent on biodiversity?
Content Objective: <i>Math Reading Writing Other:</i>	<i>Students will be learn how to use field guides and technology to identify native species and research more in depth information about their characteristics and habits.</i>
Language Objective:	Descriptive words used to identify species.

Vocabulary		Materials		
		<ul style="list-style-type: none"> • <i>Field Guide Activity Handout</i> • <i>Field Guides (Native plants, birds, insects, reptiles and mammals)</i> 		
Seasonality <i>Spring/fall</i>				
<i>Monsoon</i> July-Sept.	<i>Autumn</i> Oct.-Nov.	<i>Winter</i> Dec- Feb.	<i>Spring</i> Mar.-Apr.	<i>Dry Summer</i> May-June
Guiding Questions: How do you use a field guide to help you identify native species? What other information can find in field guides?				

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Anticipatory Set:

Ask students how they would go about identifying an organism they had never seen before. Collect answers.

Show them examples of field guides (for birds, plants, insects, mammals, reptiles) that they will be using to find information about different native species.

Also introduce them to field guide websites, such as

Native Desert Plants: <http://fireflyforest.com>, www.aznps.com/floras.php,

Animals: <https://www.desertmuseum.org/kids/oz/long-fact-sheets/>,

http://www.azgfd.gov/w_c/edits/hdms_species_lists.shtml,

<https://www.fws.gov/southwest/es/arizona/Threatened.htm>

Amphibians & Reptiles: <http://www.reptilesfaz.org>

Explain that they will be using both types of sources to learn how to identify native species as they investigate their chosen site for biodiversity

Activity/Investigation:

1. Give students the Field Guide activity sheet and have them write down their personal species info
2. Assemble student into Biodiversity teams and have them share field guides and websites to complete the activity.

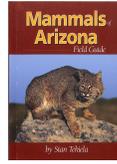
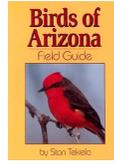
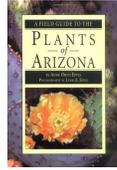
Closure Question:

Ask students to write a reflection on their experience with the field guides. What information was most interesting? What was most useful? How did using the field guides compare to using the internet?

Name _____

Period _____ Date _____

Using Field Guides and Identifying Native Desert Species



Purpose: To become familiar with using field guide books to identify native desert species.

1. LIST any five native species (using common or scientific names) whether you have seen them or not. Include plants, birds, insects, reptiles or mammals.

1. _____
2. _____
3. _____
4. _____
5. _____

2. Choose one of the species you named and search for it in the field guidebooks or on the web. If you can't find it, choose another species on your list. Write down some information about it (such as its scientific name, "physical description" or "habitat"). Cite your sources.

- a.
- b.
- c.

Now look through any of the field guidebooks and find a species you don't know. Read the entire page on it and list some interesting facts that you learn. Cite your sources.

- a.
- b.
- c.

Write three questions you now have about native species

- 1.
- 2.