

Bio/Diversity Project
 Sonoran Desert Adaptations

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Grade Level: 5th grade

Common Core Standard:	<i>Strand 3, Concept 1: Describe the interactions between human populations, natural hazards, and the environment.</i> <ul style="list-style-type: none"> • <i>PO 2. Propose a solution, resource, or product that addresses a specific human, animal, or habitat need.</i>
Content Objective: Science	<ul style="list-style-type: none"> • <i>Students will be able to identify adaptations of desert species that help them survive in the Sonoran Desert.</i>
Language Objective: (Optional)	N/A

Vocabulary	Materials
<ul style="list-style-type: none"> • Adaptation • Biodiversity • Diversity • Species • Taxonomy 	<ul style="list-style-type: none"> • Markers • Colored pencils • Paper or printed out desert animal silhouettes (one piece per student)
Guiding Questions: <ul style="list-style-type: none"> • What distinguishes animals that live in the desert from non-desert animals? • If you were an animal living in the desert, where would you live? How would you survive the heat? • What is an adaptation? • Why and how are adaptations beneficial for different organisms? 	

Engagement/Introductory Activity:

- Ask students which desert species they like and know about.
- Present a slideshow that has pictures, interesting facts, and adaptations of desert species (animals, insects, plants). Define the word adaptation, and give clear examples of adaptations that are specific to living in an arid region such as the Sonoran Desert
- Ask students what makes these species special and able to survive in the Sonoran Desert as opposed to other environments – can compare the desert plants/animals to those in the sky islands (the tops of the mountains surrounding Tucson) or even more foreign environments such as the rainforest.

Exploratory Activity:

Students will draw a new desert species and its Sonoran Desert adaptations in order to synthesize knowledge about how animals, insects, and plants live and survive in the desert.

- Distribute a sheet of blank paper to each student and ask them to draw a new desert species that has learned to adapt to the Sonoran Desert
- Ask each student to draw their species, include at least one adaptation that it has that is specific to living in the desert, and write an explanation of their drawing at the bottom of the page
- If they need more guidance, you can print out a silhouetted picture of an ant or another simple animal, insect, or plant, and allow them to make changes to it instead of creating a brand new species



Explain:

- Walk around the room and ask the students about their species and what adaptations they have that help them survive. What are their adaptations combatting that is specific to the Sonoran Desert? (e.g. heat, sparse shelter, lack of water, specific predators, etc.)
- If students feel comfortable, ask them to share their drawings, adaptations, and explanations with the rest of the class.
- Expand upon student ideas and connect their adaptations to other species in the Sonoran Desert.

Extension Activity/Questions:

Students will do independent research on a Sonoran Desert organism and explain an adaptation that it has developed for survival in the desert (plants – small, waxy leaves, large animals – sleep during the heat of the day, come out at night, etc.)

Evaluation Activity:

The questions in the “Explain” section can either serve as discussion topics or as an assessment (or both)!