

## The Bio/Diversity Project Lesson Title: Adaptations of Desert Animals and Desert Humans

Teacher: Alexandra Salido Almada and Nicole Granados

Grade Level: 6th

Time: 30 minutes + 10 minute pre-assignment

Adapted from: Animal Adaptations for Survival

<u>adaptionary</u>

AZ State Science Standard:	<ul> <li>6.L2U3.12:</li> <li>Engage in argument from evidence to support a claim about the factors that cause species to change and how humans can impact those factors.</li> </ul>	
Learning Objective:	<ul> <li>Students will be introduced to what adapting is and how an animal or a human use adaptation to live in an environment.</li> <li>Students will be shown different factors that allow humans and animals to adapt more easily to their surroundings.</li> <li>Students will learn about specific adaptations which help the plants and animals of the Sonoran Desert environment survive.</li> </ul>	
Language Objective: (Optional)	N/A	
Scientist of the Week:	Scientist of the Week:  • Lydia Villa-Komaroff	



- She was one of the first Mexican-American women in the country to get a Ph.D. in molecular biology in 1975.
- Discovered how to make synthetic insulin in 1978.
- Founded the Society for the Advancement of Chicanos/Hispanics and Native Americans in Science.
- Biologists such as Dr. Lydia Villa-Komaroff, helped us discover how life among humans and animals functions for our survival.

Vocabulary			Materials			
<ul> <li>Adaptations - physical or behavioral features which help animals and plants survive in their environment. Behavioral adaptations Physical adaptations</li> </ul>			▶ <u>Slides</u>			
Seasonality: No specific seasonality is required						
Monsoons July-Sept.	Autumn OctNov.	Winter Dec Feb.	Spring MarApr.	Dry Summer May-June		
Guiding Questions:						

How do species adapt to environmental changes?

5E Steps	Teacher Strategies	Student Behavior
Engagement/Introductory Activity:	Ask students about how they spend a hot summer day in the Sonoran Desert. Most of the answers involve actions or behaviors that we take to avoid the desert sun. That is, humans generally make behavioral adaptations in response to heat. Animals as well, often alter their behavior to adjust to intense heat situations. They may seek out shade, drink more water, or become inactive. Besides changing behavior to adapt to a situation, many animals and plants have physical features which allow them to adapt to environmental conditions. Humans living in the desert can and have learned a lot about desert survival from studying the ways native plants and animals have adapted to desert living	Students will answer the questions about how they spend a hot summer day in the Sonoran Desert and how the animals and plants are able to survive here.
Exploratory Activity:	Show students the video on adaptation  sonoran desert spanish version video on adaptation	Students will watch the video about animal adaptations.
Explain:	Start a discussion on adaptation, using the Google Slides presentation to reinforce the concepts of Adaptation (Behavioral and Physical) and Explain that these five things are among the necessities of survival for plants and animals of the desert: Feeding, Moving, Protection, Conserving Water, Keeping Cool.	Students will listen and follow the slides presentation  Students will act out the selected species (like charades), then after that species being described, students will try to guess what type of adaptation the species has developed.

	Have a random student choose a species from the slide red-tailed hawk sahuaro Jackrabbit rattlesnake great horned owl (adaptionary) once the student chooses it, have the student act it out (like charades) then, read the species description (desert dweller cards) and and have the students guess what type of adaptation that selected species has developed.	
Extension Activity/Questions:	Have students play the Desert Adaptations Game on the Arizona-Sonora Desert Museum Site  (We are deciding on new game to replace desert adaptations game that is bilingual)	Students will reinforce the concepts of adaptation and learn about specific adaptations of different species.
Evaluation Activity:	Ask the students to share the new characteristics/features they learned about the Sonoran Desert Species	Students will answer the questions about the features of desert species