

## Animal Adaptations

**OVERVIEW:** Students will construct shelters for animals who have adapted to hiding from the sun.

**OBJECTIVES:** Students will be able to:

- Understand that humans and animals need protection from the sun and heat.
- Create a shelter to keep animals safe from the sun.

**KEY FOUNDATIONAL SKILLS:**

- SC2.2: Recognize seasonal and weather related changes
- SC3.1: Demonstrate awareness of life

### MATERIALS:

- Beneath the Sun* by Melissa Stewart  
Illustrated by Constance R Bergym
- Why Oh, Why are Deserts Dry? All About Deserts* by Trish Rabe, Aristides Ruiz, & Joe Mathieu
- Pipe cleaners
- UV-sensitive pony beads
- Recyclables and consumables such as:  
cardboard tubes, popsicle sticks, straws, cups, egg cartons, aluminum foil, construction paper
- Scraps of fabric
- Sunscreen

DAY 1	Engage (5-8 minutes)	Read <a href="#"><i>Beneath the Sun</i></a> by Melissa Stewart Illustrated by Constance R Bergym.
	Exploration (12 minutes)	The teacher will tell students they are going to be meeting animals that need protection from the sun and its heat. Give students pipe cleaners and UV-Sensitive Pony beads. The pony beads will appear white while inside.
	Explain (5 minutes)	Teacher takes students outside to see how the beads change color when exposed to the sun. Teacher asks students: <ul style="list-style-type: none"> <li>• <i>How to humans stay safe from the sun?</i></li> <li>• <i>How do we stay cool?</i></li> <li>• <i>How do we protect ourselves from sunburn?</i></li> </ul>
	Closing (1 minute)	Inform students that in the next lesson they will be making shelters for the animals they made to protect them from the sun's rays and heat.
DAY 2	Engage (2-3 minutes)	Read <a href="#"><i>Why Oh Why are Deserts Dry? All About Deserts</i></a> by Trish Rabe, Aristides Ruiz, & Joe Mathieu.
	Exploration (30-45 minutes)	The students will use recyclable materials to build a structure or home that will hide their animal from the sun.
	Evaluate (5 minutes)	The teacher will take the students outside, with their animals inside the structure, to see if the animal is protected from the sun. They will be able to tell if their animal is protected based on if the beads change color.
	Closing (1 minute)	Students discuss results of experiment. Were there animals protected from the sun?



**ADDITIONAL READING AND RESOURCES:**

- *Desert Dwellers (board book)* by Dr. Holly Karapetkova
- [A Day and Night in the Desert \(Caroline Arnold's Habitats\)](#) by Caroline Arnold
- *How and Why Do Animals Adapt?* By Bobbie Kalman

<b>DAY 3</b>	Engage (5- 8 minutes)	Read <a href="#">Desert Animals and Plants for Kids: Habitat Facts, Photos and Fun</a> by Baby Professor.
	Elaborate (15-20 minutes)	Have students test other ways to protect their animals from the sun. Have the students try to make an outfit for their animals. Try putting sunscreen on their animals.
	Explain (5-10 Minutes)	Teacher will ask students the following questions: <ul style="list-style-type: none"> <li>• <i>How did your animals stay safe from the sun?</i></li> <li>• <i>What worked well in the shelters and what didn't work?</i></li> </ul>
	Closing	Students will share their favorite part of the unit.

**Extensions:**

- If the students' structures did not work, allow time for students to redesign and rework their structures.