



**Pima County Natural Resources, Parks and Recreation  
Environmental Education Field Study**

**Experiencing Nature through the Senses  
Middle School Level**

**Description:** Experiencing Nature through the Senses

With the creative use of animal pelts, skull replicas, tracks, sounds and botanical preparations we excite all your senses. Students practice nature journaling as a way to record observations and express experiences.

**Linked to Arizona Academic Standards:** Science S4: C1-G1PO2, G2PO1, G4PO2, KPO3; C2-G1PO2, G2PO2; C3-KPO1, G1PO1, G1PO3, G3PO1, G7PO2, G7PO3; C4-G8PO5.

**Duration:** 2 hours

Classroom version can be for 1, 1 ½, or 2 hours.

Field trip version includes a 1 hour nature walk.

**Objectives:**

- Using the five senses students experience the textures, smells, sounds, tastes, and sights of nature
- Using pelts, skulls, antlers, horns and photos students learn the natural history of Sonoran Desert mammals including javelina, bobcat, coyote, mule deer, mountain lion and big horn sheep.
- Using skins, skulls, rattlers and photos students learn the natural history of Sonoran Desert reptiles including horned lizard, Western diamondback rattle snakes and Gila monster.
- Using recorded and natural sounds, students identify, by sound, common birds of the Sonoran Desert including Gambel's quail, curve-billed thrasher, Gila woodpecker and cactus wren. Students learn the natural history of these and other desert birds.
- Using available plant material and prepared botanical essences students use their sense of touch and smell while blindfolded to explore desert plants. Students learn the ecological role of these plants. Plants used include creosote, saguaro (cross-section, and seeds), cholla, mesquite, prickly-pear, and devil's claw.
- Students practice nature journaling through writing in a provided journal.

**Conceptual Framework:**

- Opportunities to experience nature can contribute to human physical, mental and emotional health.

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**Vocabulary:**

Allelopathy	Glochid	Niche
Antler	Habitat	Nocturnal
Attractant	Herpetology	Pelt
Aromatic	Hoof	Scat
Carapace	Horn	Venomous
Diurnal	Loreal Pit	

**Materials and supplies:**

- Kits with pelts, skins, antlers, horns, skulls, bones, teeth, claws, rattlers, seeds, cacti cross-sections, seeds and stem segments, botanical specimens and prepared essences, mesquite flour in salt shakers.
- Nature journals, pencils, clipboards
- Photos of animals and plants with common and scientific names
- Blindfolds (masks)
- Identifiers with bird sound cards

**Description of activity:**

- Tell students they are about to experience Sonoran Desert animals and plants by using all of their senses with a de-emphasis on sight which is the sense that dominates our observations.
- To insure that sight is de-emphasized, use blindfolds (masks) in an effort to heighten the other senses.
- Allow blindfolded students in groups of five to touch and smell pelts of javelina, bobcat, coyote, mule deer and mountain lion. Do not allow students to see the pelts before students are blindfolded. Ask each group to describe each of the pelts. Is the hair soft or coarse? Is the hair long or short? Is there a characteristic smell? Is the smell natural or a result of taxidermy? Ask students to guess what animal the pelt belongs to.
- Remove blindfolds and record observations in their nature journal. Bring the pelts back out in sight. Ask each group to identify the pelt they were touching.
- As each pelt is being discussed, talk about the mammal's natural history. Cover habitat requirements, ecological role, major prey/food items, interaction with humans, conservation issues. Refer to the fact sheet on each mammal. Show the visual aids containing a photo of the mammal including the scientific and common name.
- Repeat the activity by blindfolding students again and redistributing the pelts.
- Repeat the activity using skulls, antlers, and horns.
- Record all observations in the nature journal. Repeat the activity using body parts of reptiles (horned lizard, Western diamondback rattle snake and Gila monster)
- Repeat the activity using parts of plants (creosote, saguaro {cross-section, seeds}, cholla stem sections, mesquite beans, prickly pear and devil's claw.
- Allow blindfolded students to taste mesquite flour.
- Record all observations in the nature journal.
- Have students listen for birds. Play recorded bird sounds of common desert birds (Gambel's quail, cactus wren, curve-billed thrasher and Gila woodpecker).

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- Discuss each bird's natural history including habitat requirements, ecological role, major food sources, conservation issues.
- If time allows, have students make a sketch of one or more observed birds in the nature journal.

**Late Arrivals:** Delete one or more of the different groups of items experienced. For example, use pelts and plant parts while deleting horns/antlers/skulls and bird sounds. Save time by not spending too much time on the nature journals.