

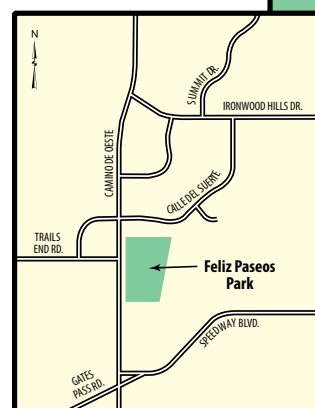
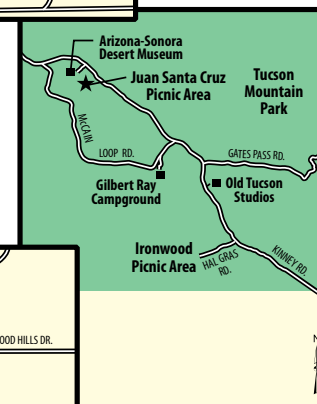
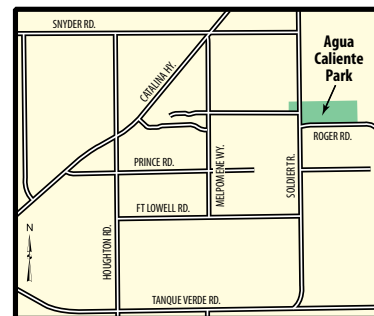
Pima County Natural Resources, Parks and Recreation offers field study programs for elementary and middle school classes at three of the region's best natural resource parks, and we can bring selected programs to your schoolyard or classroom. **Agua Caliente Park** located on the east side of Tucson features a natural spring and pond that is home to an exceptionally rich mix of plants, wildlife, and archaeological and historical features. **Feliz Paseos Park** and **Tucson Mountain Park**, located on the west side of Tucson, showcase spectacular Sonoran desert scenery, outstanding geologic features, and wildlife viewing.

Read through the detailed program descriptions located inside to help you decide which location and program best suit the needs of your students.

PROGRAM LOCATIONS

PROGRAM TITLE	GRADES	DURATION	AGUA CALIENTE	FELIZ PASEOS	TUCSON MT. PARK	CLASSROOM
Agua Caliente History Day	4th	4 hours	✓			
Aquatic Ecosystems	K-8th	2.5 hours	✓			
Bat Research Simulation	4th-8th	2 hours	✓			✓
Earth Day at Agua Caliente Park	3rd-6th	4 hours	✓			
Earthkeepers	4th-5th	2.5 days	✓			
Ecosystem Discovery	K-8th	2 hours	✓	✓		
Experiencing Nature through the Senses	K-8th	2 hours	✓	✓		✓
Geology of the Tucson Mountains	6th-8th	2.5 hours			✓	
Invasive Species of the Sonoran Desert	7th-8th	4 hour			✓	✓
Observing Birds	K-8th	2 hours	✓	✓		
Orienteering	2nd-8th	2 hours	✓	✓		✓
Self-Guided Nature Study	K-5th	Flexible	✓			
Tucson's River of Words School Residency	K-8th	TBA				✓
Water Quality	K-8th	2 hours	✓			

For information or to make reservations,
call (520) 615-7855
or email eeducation@pima.gov



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ELEMENTARY AND MIDDLE SCHOOL

ENVIRONMENTAL EDUCATION FIELD STUDY TRIPS AND CLASSROOM PROGRAMS



PIMA COUNTY
NATURAL RESOURCES,
PARKS AND RECREATION

The following field study trips and classroom programs are best suited for Elementary (K-5) and Middle School (6-8) students. All programs are linked to Arizona Academic Standards. There is a minimum group size of 15 students for all programs with the exception of the Self-Guided Nature Study. Reservations are required for all school programs. Environmental Education lesson plans and teacher resources are available at www.pima.gov/nrpr

For information or to make reservations, call 520-615-7855 or email eeducation@pima.gov

Ecosystem Discovery

Explore the diversity of life in riparian and desert ecosystems through guided, hands-on exploration. Students use binoculars and hand-lenses to make observations and work as a class to understand the interrelationships between plants and animals and the environment.

Linked to Arizona Academic Standards – [Science S3: C3: S4: C1: G1PO2, G1PO3; G2PO1, G2PO3; G3PO1; G4PO2; G6PO1; HSPO4; C2: G3PO2; C3: KPO1, KPO2, G1PO1, G1PO3; G3PO1, G3PO3, G3PO4, G3PO5; G4PO1, G4PO3; G6PO1, G6PO2; G7PO1, G7PO2, G7PO3, G7PO6; C4: G3PO1; G4PO1, G4PO2; G8PO1, G8PO6. \[Writing S2, C1, G1, PO2; S2, C1, G4-5, PO3; S2, C1, G6-8, PO4. \\[Social Studies 3SS-P4, P5; 4SC- F4, F7, E7, P4, P6.\\]\\(#\\)\]\(#\)](#)

Water Quality

Students learn first-hand how scientists study water by collecting water samples and taking scientific water quality measurements. Types of test performed depend on grade level.

Linked to Arizona Academic Standards – [Mathematics 1M- R1, F2, E1, E6; 2M- R2, F1, F2, E1, P1, P2; 5M- F2; 6M-E1. \[Science S4: C1: G6PO1; S6: C3: G4PO1. \\[Social Studies 3SS: F2PO5, E7PO6, P4PO3, D3PO6; 6SC: F1, E6, P5.\\]\\(#\\)\]\(#\)](#)

Observing Birds

Learn the important roles of birds in the environment and how to identify common birds of the desert southwest. Students use binoculars to complete bird diagrams to exercise their observational skills.

Linked to Arizona Academic Standards – [Science S4: C1: G1PO2, G1PO3; G2PO1; G4PO2; C2: G1PO2; C3: KPO1; C4: G3PO1, G8PO5, G8PO6.](#)

Aquatic Ecosystems

The natural spring and pond at Agua Caliente Park are teeming with life. Use nets, skimmers, and buckets to collect water samples and then watch the water come to life under the microscope. Students refine their observation skills and sketch aquatic invertebrates.

Linked to Arizona Academic Standards – [Science S4: C1- G1PO2, G1PO3; G2PO1, G2PO3; G4PO2; G6PO1, G6PO6; C2- G1PO2, G2PO1, G2PO3; G3PO2; C3-KPO1, KPO2, G1PO1, G1PO3; G3PO1, G3PO2, G3PO3, G3PO4, G3PO5; G4PO1 G4PO3; G4PO1, G4PO3; G6PO1, G6PO2; G7PO1, G7PO2, G7PO3, G7PO5, G7PO6, C4-G3PO1; G4PO1, G4PO2; G8PO1, G8PO5, G8PO6; 3SS-F2PO5; 3SS-E7PO6; 3SSP4PO3, 3SS P4PO3; 4SS-F4, F7, E7, P4, P6.](#)

Bat Research Simulation

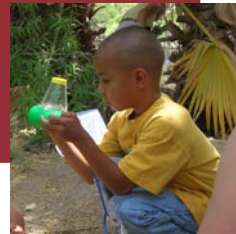
Students learn about the fascinating lives of bats while they practice scientific field research methods during this outdoor bat netting simulation. Students collect model bats, take measurements, identify species, and record data which is compared to actual bat data from research in the Sonoran Desert.

Linked to Arizona Academic Standards – [Math S2C1, S3C4, S4C3; \[Science S1C1, C2, C3; S3C1, C2; S4C1, C3, C4.\]\(#\)](#)

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.](#)



Geology of the Tucson Mountains

The geology of the Tucson Mountains is often described as chaotic due to the hodge-podge of geologic features seen today. Explore some of these dramatic features to understand how the Tucson Mountains and the Tucson Basin was formed. This class trip involves relatively easy hiking over desert terrain.

Linked to Arizona Academic Standards – [Science S6C1G7PO1, PO2, PO3, PO4; S6C2G7PO1, PO2, PO3, PO5. \[Social Studies 3SS-E4PO3, PO5, PO6; 6SC-E4, 6SC-P4.\]\(#\)](#)

Orienteering

A fun and practical way to explore the desert is through orienteering, or the use of map and compass to find your way. Students learn how the Earth's natural magnetic field interacts with a compass and how wildlife relies on magnetic fields to navigate. Then each student will practice their skills on a custom made orienteering course.

Linked to Arizona Academic Standards – [Mathematics 1M-E1, 2M-E1, 3M-P1, 4M-E1, 4M-E2, 5M-F3, 5M-F4, 5M-E1, 5M-E2, 5M-E3. \[Science SC04 S2C1, S3C1, S5C1, SC 4-8 S6C2, SC5-8 S2C1, S3C1, S5C1, S6C1, SCHS S2C1, S3C1, S5C1, S6C2; S6: C1: G3PO1, G7PO2. \\[Health 2PA-P5, 5PA-E3, 5PA-P1, 6PA-E3, 7PA-E3. \\\[Social Studies 3SS-F1, PO1, PO2, PO6; 3SS-F2, PO2; 3SS-E1, PO2, PO3; 3SS-E3, PO2; 3SS-E4, PO3; 3SS-D1, PO5; 6SC-E3.\\\]\\\(#\\\)\\]\\(#\\)\]\(#\)](#)

Invasive Species of the Sonoran Desert

Through hands-on activities students learn to identify buffelgrass and to understand the threats this invasive plant poses to Sonoran Desert. During a community service field experience, students remove buffelgrass from a natural area. The location for the buffelgrass removal project will be identified at the time of scheduling. Activity requires 4-6 hours.

Linked to Arizona Academic Standards – [Science S3: C2: G7PO1, G7PO2, G7PO3, G7PO6, G8PO1, G8PO6.](#)

Earthkeepers

4th and 5th grade students are immersed in a unique 2½-day experience at Agua Caliente Park to complete the Earthkeepers Level I training. The principle objective for this internationally-acclaimed program is to produce students who possess basic ecological understandings and appreciation for the earth and its life. Earthkeepers requires classroom work, homework and 2½ school days at Agua Caliente Park.

Linked to Arizona Academic Standards – [Science S4: C3: G4PO1, G4PO3, G4PO4; G6PO1, G6PO2. \[Social Studies 6SC-E4.\]\(#\)](#)

Agua Caliente History Day

February - Call for Scheduled Date

Arizona history as it relates to historic Agua Caliente Park comes to life through interactive demonstrations and hands-on activities. Enjoy a day of activities focused on different periods of Arizona's past and conclude with an interactive timeline. This event is geared towards 4th grade classes studying Arizona History.

Linked to Arizona Academic Standards – [Social Studies and History 3SS-E2-PO4, PO1.](#)

Earth Day at Agua Caliente Park

April - Call for Scheduled Date

This annual event offers a variety of hands-on activities for 3rd through 6th grade classes. Students are engaged during six, 30-minute sessions to learn about energy efficiency, habitat conservation, local water issues, recycling, nature art, and much more. Arizona Academic Standards vary; activity selections made with reservation.

Tucson's River of Words Youth Poetry and Art

Tucson's River of Words Youth Poetry and Art (TROW) encourages young people to explore how water moves through the landscape and the connections that plants, animals, and people have to water. After exploring these topics children ages 5-19 have the opportunity to share their observations and understandings through their entries of poetry and visual art to Tucson's River of Words Youth Poetry and Art Contest.

The TROW School Residency inspires K-12 students to engage in outdoor learning, exploration, and artistic expression of their experiences of local watersheds, water resources, and the connections that we all share with water. Pima County Natural Resources, Parks and Recreation and the Tucson-Pima Arts Council coordinate with several community partners to offer a suite of educational opportunities that blend science, language and visual arts, and dance education.

Tucson's River of Words Youth Poetry and Art Contest entries are accepted anytime. The submission deadline for the 2012 contest is February 1, 2012. Independent entries are welcomed as well as entries from schools, home-school students, and other organized youth groups.

For a brochure with the complete description of the TROW School Residency and TROW contest entry forms and information contact (520) 615-7855, email eeducation@pima.gov or visit www.pima.gov/nrpr.

Self-Guided Nature Study at Agua Caliente Park

Teachers or Youth Group Leaders can reserve Nature Study Packs for groups with 5-30 students (grades K-5). Students explore nature and learn about the diversity of wildlife at Agua Caliente Park through self-guided activities and tools included in individual nature packs. Binoculars are available for loan along with the Nature Study Packs. Reservations are required.

Linked to Arizona Academic Standards – [Science S1-C1:PO1, PO3, PO4; C2: PO1, PO3, PO4; C3: PO1, PO2; C4: PO1](#)

All environmental education programs are linked to the Arizona Academic Standards. Selected programs are available for the schoolyard, classroom or field study. Check the location table to find out which program is best suited for your students.