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

Bat Research Simulation – Grades 4-8

Description: 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.

Duration: 2 hours

Objectives:
- Describe at least 5 characteristics of bats
- Demonstrate understanding of bat diversity and appreciation for the importance of bats to humans and the ecosystem as a whole.
- Describe dangers to bats and explain strategies for species preservation.
- Utilize measurement tools and methods.
- Practice data collection and compare collected data with established data set.
- Create hypothesis and use critical thinking skills in data analysis.

Conceptual Framework:
- All living things are interrelated; they are a product of their environment which includes non-living resources and an integral part of it.
- Food webs are pathways through which energy flows from the sun to plants and subsequently to herbivores, omnivores, carnivores and decomposers.
- Species and habitat diversity are the foundation for a stable Sonoran Desert ecological system.

Vocabulary:

Anticoagulant	Mammal	Sanguinivore
Carnivore	Megabats	Nectarivore
Chiroptera	Microbats	
Echolocation	Migratory	
Endothermic	Native	
Frugivore	Insectivore	
Hibernation	Piscivore	

Equipment and Materials:

Bat Simulation Kit

Description of Activity:

- Students learn about bat's natural history, diversity, threats and conservation status.
- Students practice scientific field research methods during this outdoor bat netting simulation.
- Students collect model bats, take measurements, identify species, and record data.
- Students analyzed data collected, create hypothesis and compare to actual bat data from research in the Sonoran Desert.