

ALL ABOUT BATS PRE-PROGRAM ACTIVITIES

A variety of activities to hook student interest in bats and issues surrounding bats.

ARIZONA ACADEMIC STANDARDS

SC03-S3C1
SC04-S3C1
SC05-S3C1
SC07-S3C1
SC08-S3C1
SCHS-S3C1
SC03-S4C1
SC04-S4C1
SC05-S4C1
SC06-S4C1
SC03-S4C3
SC04-S4C3
SC07-S4C3
SC03-S4C4
SC04-S4C4
SC08-S4C4
SCHS-S4C4

VOCABULARY

Adaptation
Chiroptera
Echolocation
Habitat
Habitat Loss
Hibernate
Migrate
Nocturnal
Pollinator
Rabies
Roost
Seed dispersal
Vertebrate

ANTICIPATORY

For Grades 3-12:

Benefits of Bats

From Association of Zoos and Aquariums Bat Education Activities <http://www.aza.org/thematic-educational-activities/>

Students investigate products (manipulatives and pictures) to explore the importance of bats for humans and nature.

Bats: Maligned or Malicious?

From National Wildlife Federation Night Friends

<http://www.nwf.org/~media/PDFs/Be%20Out%20There/Schoolyard%20Habitats/Night-Friends.ashx>

Students explore views and myths about bats, and present their findings.

Species Profiles

From Bat Conservation International <http://www.batcon.org/index.php/all-about-bats/species-profiles.html>

Pictures and information for North American Bat Species

PowerPoint Presentations

Grades 3-6

Bats A to Z: An Alphabet Book About Bats

From the Lubee Bat Conservancy http://www.batconservancy.org/siteRoot/pdf/Lubee/Lubee_Bats_A_to_Z_Presentation.ppt#1

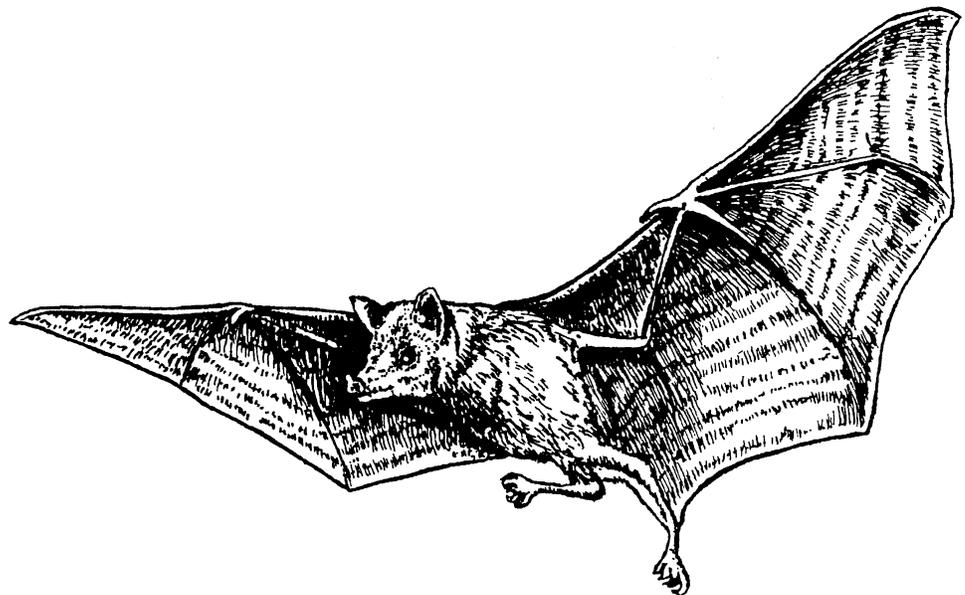
Information and pictures about bats

Grades 7-12

Why Care About Bats

From Association of Zoos and Aquariums Bat Education Activities <http://www.aza.org/thematic-educational-activities/>

Information and pictures about bats, with teacher notes in the notes section



ALL ABOUT BATS PRE-PROGRAM ACTIVITIES

A variety of activities for students to explore characteristics and diversity of bats

ARIZONA ACADEMIC STANDARDS

SC03-S4C1-01
SC04-S4C1-02
SC05-S4C1-01
SC06-S4C1-06
SC02-S4C2-02&03
SC03-S4C3-03
SC04-S4C3-01
SC07-S4C3-02
SC03-S4C4-01
SC04-S4C4-01&02
SC08-S4C4-01&06
SCHS-S4C4-02,04&06

VOCABULARY

Adaptation
Chiroptera
Carnivore
Echolocation
Endothermic
Frugivore
Insectivore
Megabat
Microbat
Nectarivore
Nocturnal
Piscivore
Pollinator
Roost
Sanguivore
Vertebrate

EXPLORATION ACTIVITIES

Grades 3-8

The Wing's the Thing (Bat Anatomy)

From US Fish and Wildlife Service:
Indiana Bat Curriculum
<http://www.fws.gov/midwest/Endangered/mammals/inba/curriculum/index.html>

Students identify and label bat anatomy on a diagram.

Grades 3-8

Indiana Bats and Me – Measurement Activity (adapted from BCI)

From US Fish and Wildlife Service:
Indiana Bat Curriculum
<http://www.fws.gov/midwest/Endangered/mammals/inba/curriculum/index.html>

Students compare bat and human structure and function.

Grades 3-6 (adaptable for Grades 7/8)

Investigating Bat Adaptations

From National Wildlife Federation - Night Friends
<http://www.nwf.org/~media/PDFs/Be%20Out%20There/Schoolyard%20Habitats/Night-Friends.ashx> Students investigate adaptations that increase a bat's chance of finding food and surviving in a particular habitat.



Grades 3-12

Bat Echolocation Song by Jumpstart

From Youtube: <http://www.youtube.com/watch?v=Hr-Y2Tt8gFE>

Grades 9-12 (adaptable for Grade 8)

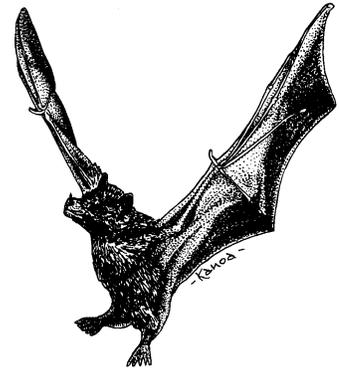
Bats of Arizona – Classification

From Arizona Game and Fish Department http://www.azgfd.gov/i_e/ee/resources/posters/bats_hs.shtml

Using a glossary of Scientific Names given to bats, students translate names into descriptive characteristics.

Can be used together with AZGF Wild Kids Worksheet: http://www.azgfd.gov/i_e/ee/resources/wild_kids/bats712.pdf

Bat poster from AZGF, or with Species Profiles from Bat Conservation International <http://www.batcon.org/index.php/all-about-bats/species-profiles.html>



Grades 3-4

Echolocation Activity

From Association of Zoos and Aquariums Bat Education Activities <http://www.aza.org/thematic-educational-activities/>

Students play a game to simulate echolocation.

Grades 5-8 (adaptable for Grades 9-12)

Bats and Echolocation From Scientific American Frontiers Calls of the Wild Teaching Guide <http://www.pbs.org/saf/1308/teaching/teach.pdf>

Students experiment with reflected sound waves in order to analyze echo return time and calculate the distance of the reflecting surface.

ALL ABOUT BATS POST-PROGRAM ACTIVITIES

A variety of activities for students to apply program concepts, and elaborate on the importance of bats to humans and to the larger ecosystem, threats to bat populations, and strategies for preservation

ARIZONA ACADEMIC STANDARDS

SC03-S3C1-02
SC04-S3C1-01&02
SC05-S3C1-02&03
SC07-S3C1-01,02&03
SC08-S3C1-01&02
SCHS-S3C1-01,02,03,04&05
SC03-S3C2-01
SC04-S3C2-01&02
SC06-S3C2-01
SC07-S3C2-01
SC08-S3C2-01
SCHS-S3C2-01,04&05
SC02-S4C2-02&03
SC03-S4C3-03
SC04-S4C3-01
SC07-S4C3-02
SC03-S4C4-01
SC04-S4C4-01&02
SC08-S4C4-01&06
SCHS-S4C4-02,04&06

VOCABULARY

Adaptation
Chiroptera
Endangered
Endangered species
Frugivore
Habitat
Habitat Loss
Hibernate
Insectivore
Migrate
Migration corridor
Nectarivore
Nocturnal
Pollinator
Roost
Seed dispersal

APPLICATION /ELABORATION

Grades 3-8

Bats: A Creativity Book for Young Conservationists

From Bat Conservation International
<http://www.batcon.org/pdfs/education/CreativityBook2011.pdf>

Students engage in various creative thinking activities to review characteristics, importance and issues about bats.

Grades 3-8

Pest Control - It All Adds up – Word Problems

From US Fish and Wildlife Service: Indiana Bat Curriculum <http://www.fws.gov/midwest/Endangered/mammals/inba/curriculum/index.html>

Students solve word problems about bats' eating habits and impacts on crops.

Grades 3-8

Make and Play Game

From Association of Zoos and Aquariums Bat Education Activities <http://www.aza.org/thematic-educational-activities/>

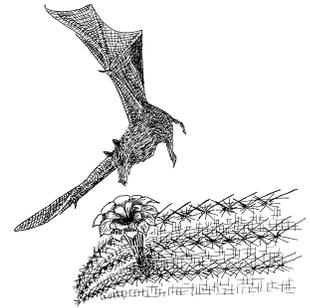
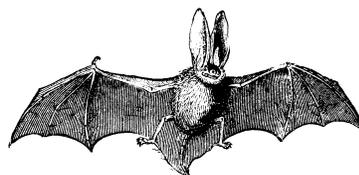
Students play a situational dice game to simulate a year in the life of a bat and the obstacles it faces.

Grades 3-8

Bats: Need Nectar, Will Travel

From Arizona-Sonora Desert Museum Teacher Information Packet - Plant & Animal Partners program
[http://www.desertmuseum.org/center/edu/docs/k-](http://www.desertmuseum.org/center/edu/docs/k-5_DesertGardeners_batGame.pdf)

[5_DesertGardeners_batGame.pdf](http://www.desertmuseum.org/center/edu/docs/k-5_DesertGardeners_batGame.pdf)
Students role play as nectar-feeding bats on their annual migration, and try to avoid various hazards that hinder their progress.



Grades 7-12

Threats to Bats (article)

From Association of Zoos and Aquariums Bat Education Activities <http://www.aza.org/thematic-educational-activities/>

Students read an article regarding impacts threatening bat populations world-wide.

Grades 7-12

Decades of Decline – graph interpretation

From US Fish and Wildlife Service: Indiana Bat Curriculum <http://www.fws.gov/midwest/Endangered/mammals/inba/curriculum/index.html>
Students analyze graphs for trends in bat populations.

Grades 3-12

Speak up for Bats

From Association of Zoos and Aquariums Bat Education Activities <http://www.aza.org/thematic-educational-activities/>

Students engage in letter-writing campaign to lawmakers requesting support for white-nose syndrome research.

Grades 3-12

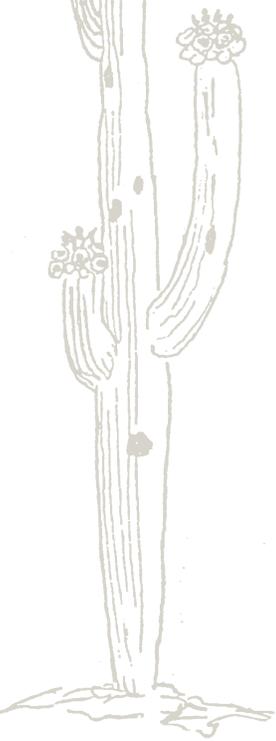
Build a Bat House

From National Wildlife Federation - Night Friends
<http://www.nwf.org/~media/PDFs/Be%20Out%20There/Schoolyard%20Habitats/Night-Friends.ashx>

Students build bat houses for roosting bats.

ALL ABOUT BATS POST-PROGRAM ACTIVITIES

Find curriculum resources to integrate bat themes into interdisciplinary/cross-curricular lessons.



FURTHER RESOURCES

Bats Live – A Distance Learning Adventure http://www.batslive.pwnet.org/resource/lesson_plans.php

Resource Center for K-8 curricula

Mathwire – Math Activity Themes-Bats <http://mathwire.com/themes/themebat.html>

Standards-based math activities that incorporate bat themes

The Teacher's Guide—Bat Lesson Plans and Printouts

<http://www.theteachersguide.com/batslessonplans.html>

Resource Center for elementary curricula

ASDM Sonoran Desert Bat Fact Sheets <http://www.desertmuseum.org/kids/bats/>

Pictures and Information for some of the Sonoran Desert Bat species

ASDM Bat Research Simulation Lab Teacher Information Packet

<http://www.desertmuseum.org/center/edu/resources.php>

More Bat Resources for Grade 6-12 curricula

