

ABQ BIOPARK EDUCATION RESOURCES: STANDARDS AND BENCHMARKS



In support of our mission, the ABQ BioPark's education resources are built around the New Mexico science standards discussed below. These resources are meant to be used before, during, and after your visit to the BioPark and can be used to supplement your own curriculum or one of our outreach programs!

For more information on our outreach programs to compliment and supplement your curriculum and these resources go to: <http://www.cabq.gov/culturalservices/biopark/teachers/education-resources/>

Cross-Curricular Standards Coming Soon!



General Strands, Standards, and Benchmarks

Strand I: Scientific Thinking and Practice

Standard I: Understand the processes of scientific investigations and use inquiry and scientific ways of observing, experimenting, predicting, and validating to think critically.

K-4 Benchmarks

I: Use scientific methods to observe, collect, record, analyze, predict, interpret, and determine reasonableness of data.

5-8 Benchmarks:

I: Use scientific methods to develop questions, design and conduct experiments using appropriate technologies, analyze and evaluate results, make predictions, and communicate findings.

9-12 Benchmarks:

I: Use accepted scientific methods to collect, analyze, and interpret data and observations and to design and conduct scientific investigations and communicate results.

Strand II: Content of Science

Standard II (Life Science): Understand the properties, structures, and processes of living things and the interdependence of living things and their environments.

K-4 Benchmarks

I: Know that living things have diverse forms, structures, functions, and habitats.

II: Know that living things have similarities and differences and that living things change over time.

5-8 Benchmarks

I: Explain the diverse structures and functions of living things and the complex relationships between living things and their environments.

II: Understand how traits are passed from one generation to the next and how species evolve.

9-12 Benchmarks

I: Understand how the survival of species depends on biodiversity and on complex interactions, including the cycling of matter and the flow of energy.

II: Understand the genetic basis for inheritance and the basic concepts of biological evolution.

Strands, Standards, and Benchmarks by Activity

Adaptations

- Adaptation Bingo: Students can play Adaptation Bingo by finding species with unique adaptations as they explore the zoo. (Life Science, Grades 5-8 Benchmarks 1-2)
- Body Shop Bingo: Match each adaptation on the Body Shop Bingo sheet to a zoo animal and a body part. (Life Science, Grades 5-8 Benchmarks 1-2)
- Secrets of Survival: These activities challenge students to define and identify key animal adaptation vocabulary before testing their animal adaptation knowledge. (Life Science, Grades 5-8 Benchmarks 1-2)
- Want Ads: Students use context clues to find the secret identity of the animals placing these silly want ads. (Life Science, Grades 5-8 Benchmarks 1-2)

Animals

Amphibians:

- Amphibian Awareness Teacher Resource Packet: Boost students' amphibian awareness with this packet! Packet includes background information for teachers and chaperones as well as student activities. (Life Science, Grades K-12, Benchmarks 1-2)
- Frog Watch Flyer: Learn how to be a citizen scientist and help frogs in your community! (Scientific Thinking and Practice, Grades K-12, Benchmark I; Life Science, Grades K-12 Benchmarks 1-2)
- Native Amphibians Brochure: Print this handy brochure to help you identify the amphibians on your next nature walk. (Life Science, Grades K-12 Benchmarks 1-2)
- Reptile and Amphibian Compare and Contrast: Students can use this worksheet to compare and contrast the species they see as they explore the Reptile House! (Life Science, Grades K-12 Benchmarks 1-2)
- Reptiles and Amphibians Teacher's Guide: Teachers and students both can use this packet to supplement their knowledge of reptiles and amphibians. Packet includes background information and activities. (Life Science, Grades K-4 Benchmarks 1-2)

Apes:

- Ape Awareness Teacher Resource Guide: Discover the world of apes! This packet includes background information for teachers

and chaperones as well as activities for students. (Scientific Thinking and Practice, Grades K-12, Benchmark I; Life Science, Grades K-12 Benchmarks 1-2)

- Orangutan Background Information: This packet includes in-depth information about Orangutans for teachers and chaperones. (Life Science, Grades 9-12 Benchmarks 1-2)
- Primate Comparison: Use this worksheet to guide students as they compare five species of primates at the zoo. (Scientific Thinking and Practice, Grades 5-12, Benchmark I; Life Science, Grades 5-12 Benchmarks 1-2)
- Primate Observation Sheet: Use this printable to introduce students to ethology, or the study of behavior, and guide their observations of a primate at the zoo. (Scientific Thinking and Practice, Grades 5-12, Benchmark I; Life Science, Grades 5-12 Benchmarks 1-2)

Bears:

- Bear Awareness Teacher Resource Packet: Learn about the bears of the ABQ BioPark Zoo! This in-depth packet contains background building information for teachers and chaperones in addition to student activities. . (Scientific Thinking and Practice, Grades K-12, Benchmark I; Life Science, Grades K-12 Benchmarks 1-2)
- Blubber Glove Activity: This fun hands-on activity will show your students the power of blubber! (Scientific Thinking and Practice, Grades K-12, Benchmark I; Life Science, Grades K-12 Benchmarks 1-2)
- Polar Bear Word Search: Students will learn more about polar bears while they identify key vocabulary in a word search. (Life Science, Grades 5-8 Benchmarks 1-2)

Big Cats:

- Big Cat Teacher Resource Packet: Leap into the fascinating world of big cats with this packet. Packet includes information for teachers and chaperones as well as student activities. (Scientific Thinking and Practice, Grades K-12, Benchmark I; Life Science, Grades K-12 Benchmarks 1-2)
- Cat Walk Observation Sheet: Use this worksheet to help students focus on their observations as they explore the Cat Walk at the ABQ BioPark Zoo. (Scientific Thinking and Practice, Grades K-8, Benchmark I; Life Science, Grades K-8 Benchmarks 1-2)
- NM Mountain Lion Activity: Extend your students' thinking by having them research and debate a Mountain Lion conservation issue.

Birds:

- Backyard Bird Habitat Flyer: This guide will help anyone create a fabulous habitat for birds in their own backyard. (Life Science, Grades 5-12 Benchmarks 1-2)
- Bird Beak Adaptations Exploration: In this lesson students will get hands-on to learn about bird beaks and animal adaptations. (Life Science, Grades K-4, Benchmarks 1-2)
- World of Parrots Activity Booklet: This engaging booklet will build students' understanding of parrots and help them brush up on their puzzle solving skills! (Life Science, Grades K-8, Benchmarks 1-2)

Elephants:

- Asian Elephant Teacher Resource Packet: Teachers and chaperones can use this packet to build their background knowledge on Asian Elephants. (Life Science, Grades 9-12 Benchmarks 1-2)
- Elephant Ethogram: Students can use this ethogram worksheet to record elephant behavior on their visit to the ABQ BioPark Zoo. (Scientific Thinking and Practice, Grades 9-12, Benchmark I; Life Science, Grades 9-12 Benchmarks 1-2)

Fish:

- Fishes Have Funny Names: Students will use their puzzle-solving skills and their knowledge of fish to complete this activity. (Life Science, Grades 5-8, Benchmarks 1-2)
- Shark Scavenger Hunt: Use this picture ID guide to help students find all the sharks at the ABQ BioPark Aquarium! (Life Science, Grades K-12 Benchmarks 1-2)
- Shark Teacher Resource Packet: This packet includes extensive background information, additional resources, and activities for students focusing on sharks and shark conservation! (Scientific Thinking and Practice, Grades K-12, Benchmark I; Life Science, Grades K-12 Benchmarks 1-2)
- Sharks in the Desert Webquest: This webquest, or guided online lesson, teaches students about sharks and guides them through a series of kid friendly websites as they work on a final product to present to their class. (Life Science, Grades 5-8, Benchmarks 1-2)

Invertebrates:

- Butterfly Pavilion Picture ID's: Use this printable photo ID guide to help you identify the species in the PNM Butterfly Pavilion.
- Butterfly Word Search: Students can use this printable to brush up on their butterfly vocabulary as they identify key words in the word search! Glossary included. (Life Science, Grades 5-8, Benchmarks 1-2)

- [Coral Reef Coloring Page](#): Students can learn about the inhabitants of a coral reef as they color this worksheet. (Fun for all ages!)
- [Dragonfly Food Chain Game](#): Teach students about dragonflies and food chains with this game! (Life Science, Grades 5-8, Benchmarks 1-2)
- [Teacher's Coral Workbook](#): This packet includes teacher and chaperone background information on coral reefs as well as classroom activities. (Life Science, Grades 9-12 Benchmarks 1-2)
- [Vermicomposting Flyer](#): This 'wormsheet' will show you how to make your own worm friendly composting bin! . (Life Science, Grades 5-12 Benchmarks 1-2)

Koalas:

- [Koala Background Information Packet](#): Learn more about these furry marsupials and the conservation issues they face with this background building packet. (Life Science, Grades 9-12 Benchmarks 1-2)

Reptiles:

- [Build Your Own Sea Turtle Craft](#): This fun and easy craft will help students learn to identify the parts of a sea turtle. (Life Science, Grades K-4, Benchmarks 1-2)
- [Reptile and Amphibian Compare and Contrast](#): See 'Amphibians' folder.
- [Reptiles and Amphibians Teacher's Guide](#): See 'Amphibians' folder.
- [Sea Turtle Identification and Facts Printable](#): Use this photo ID guide and fun fact printable as a quick reference for your visit to the ABQ BioPark Aquarium. (Life Science, Grades K-12 Benchmarks 1-2)

Rhinos:

- [White Rhinoceros Background Information](#): This packet contains in-depth information on White Rhinos and their conservation. (Life Science, Grades 9-12 Benchmarks 1-2)

Tasmanian Devils:

- [Tasmanian Devil Background Information](#): Learn more about these fascinating animals from 'down under' with this in-depth background information building packet. (Life Science, Grades 9-12 Benchmarks 1-2)

BioPark Exhibits and Facilities

Aquarium:

- Aquarium Resource Guide: These packets include a variety of resources for use before, during, and after your aquarium visit! Packets for grades 2 – 5 and 6 – 12 available. (Scientific Thinking and Practice, Grades K-12, Benchmark I; Life Science, Grades K-12 Benchmarks 1-2)

Botanic Garden:

Cottonwood Gallery:

- Bosque Scavenger Hunt: Students can use this printable to identify Bosque animals and animal evidence in English and Spanish. (Life Science, Grades K-4, Benchmarks 1-2)
- Rio Grande Bosque Word Find: Use this worksheet to help students brush up on key vocabulary related to the Rio Grande Bosque habitat. Available in two levels: 1st – 3rd grade and 4th – 12th grade. (Life Science, Grades 1-12, Benchmarks 1-2)

Deserts:

- Desert Life Crossword: Students can use this crossword to review desert habitat vocabulary. (Life Science, Grades 5-8 Benchmarks 1-2)
- Desert Plant Picture ID Guide: This photographic guide can help students and teachers alike identify common desert plants at the ABQ BioPark Botanic Garden and beyond! (Life Science, Grades K-12 Benchmarks 1-2)
- Drought Lesson Plan: This lesson plan for grades 3-5 helps students understand the importance of conserving water. (Life Science, Grades 9-12 Benchmarks 1-2)

Garden (General):

- Garden Activity Packet: This packet contains a variety of activities for elementary and middle school students to enrich their visit to the Botanic Garden. (Life Science, Grades K-8, Benchmarks 1-2)

Heritage Farm:

- Heritage Farm Resource Guides: This packet is an excellent resource for teachers and students alike. Packet contains background information, and student activities. Packets for lower elementary

and upper elementary level students available. (Life Science, Grades K-8 Benchmarks 1-2)

Pollination:

- Pollination Relay Game: This fun activity will help students understand the process of pollination and the importance of pollinators in nature. (Life Science, Grades 5-12 Benchmarks 1-2)
- Pollinator Pursuit Activity: Students can use this printable to guide them as they watch for pollinators around the ABQ BioPark Botanic Garden. (Scientific Thinking and Practice, Grades K-8, Benchmark I; Life Science, Grades K-8, Benchmarks 1-2)

Seeds:

- Seeds Word Search: Use this word search to help students review and identify seed related vocabulary. (Life Science, Grades 5-8, Benchmarks 1-2)

Zoo:

- Alphabet Zoo Hunt: Challenge students to find a zoo animal or plant name that starts with each letter of the alphabet! (Life Science, Grades K-4, Benchmarks 1-2)
- Asian Animal Scavenger Hunt: Students can use this worksheet to help them try and find every Asian animal at the zoo! (Life Science, Grades K-8, Benchmarks 1-2)
- Ethology – Animal Behavior: This challenging activity teaches students about scientific observation and guides them as they try it at the zoo! (Scientific Thinking and Practice, Grades 9-12, Benchmark I; Life Science, Grades 9-12, Benchmarks 1-2)
- Picture Zoo Bingo: Students can use this worksheet to play bingo with the animals of the ABQ Biopark Zoo! (Life Science, Grades K-4, Benchmarks 1-2)
- We're All Animals Activity: This field trip teaching guide includes standards based activities to help engage students in learning during their zoo visit. (Life Science, Grades K-4, Benchmarks 1-2)

Conservation:

Homes and Habitats:

- BIG Eyes Activity: This activity will help younger students build their observation skills by teaching them to use 'BIG eyes'. (Scientific Thinking and Practice, Grades K-8, Benchmark 1)
- Habitat Hunt Activities: This worksheet series presents students with challenging questions to answer about a variety of habitats on their visit to the zoo. (Life Science, Grades 5-8, Benchmarks 1-2)
- Habitat Rummy: Students can play their way to more in-depth understanding of habitats in this game. (Life Science, Grades 5-8, Benchmarks 1-2)

Our Actions Matter:

- A Very Old Picnic Lesson Plan: Use this lesson to show students the lasting effects of our everyday trash on the environment. (Life Science, Grades K-12, Benchmarks 1-2)
- Coyote's Choice Activity: Students learn about adaptability and survival with this activity. (Life Science, Grades 5-12, Benchmarks 1-2)
- Energy Crossword: Help students focus on energy relating vocabulary with this crossword. (Life Science, Grades 5-8, Benchmarks 1-2)

Water Cycle: This lesson series helps teach students about the water cycle, watersheds, and the impact of pollution on our environment. Most lessons are available in English and Spanish. (Life Science, Grades 5-8, Benchmarks 1-2)