



Ohio Academic Standards Addressed By Zoo Program

WILDLIFE DISCOVERY DAYS

Program description:

Discover how plants and animals survive in the wild. Using Inquiry, students compare their own skills with those of plant and animal Olympians.

Ohio Science Standards addressed by this program, organized by grade band and then standard:

GRADES K-2

Standard: Life Sciences

Benchmark A: Discover that there are living things, non-living things and pretend things, and describe the basic needs of living things (organisms).

Indicators:

Grade 1

1. Explore that organisms, including people, have basic needs which include air, water, food, living space and shelter.
4. Investigate that animals eat plants and/or other animals for food and may also use plants or other animals for shelter and nesting.

Grade 2

1. Explain that animals, including people, need air, water, food, living space and shelter; plants need air, water and nutrients (e.g., minerals), living space and light to survive.
5. Explain that food is a basic need of plants and animals (e.g., plants need sunlight to make food and to grow, animals eat plants and/or other animals for food, food chain) and is important because it is a source of energy (e.g., energy used to play, ride bicycles, read, etc.).

Benchmark B: Explain how organisms function and interact with their physical environment.

Indicators:

Grade 1

3. Explore that humans and other animals have body parts that help to seek, find and take in food when they are hungry (e.g., sharp teeth, flat teeth, good nose and sharp vision).

Grade 2

6. Investigate the different structures of plants and animals that help them live in different environments (e.g., lungs, gills, leaves and roots).

Benchmark C: Describe similarities and differences that exist among individuals of the same kind of plants and animals.

Indicators:

Grade 2

4. Compare similarities and differences among individuals of the same kind of plants and animals.

Standard: Scientific Inquiry

Benchmark A: Ask a testable question.

Indicators:

Grade 1

1. Ask “what if” questions.

Benchmark B: Design and conduct a simple investigation to explore a question.

Indicators:

Kindergarten

4. Use the five senses to make observations about the natural world.

7. Use appropriate tools to make observations about the natural world.

Grade 1

6. Use appropriate tools and simple equipment/instruments to safely gather scientific data (e.g., magnifiers, timers and simple balances and other appropriate tools).

Grade 2

7. Use appropriate tools and simple equipment/instruments to safely gather scientific data (e.g., magnifiers, non-breakable thermometers, timers, rulers, balances and calculators and other appropriate tools).

Benchmark C: Gather and communicate information from careful observations and simple investigation through a variety of methods.

Indicators:

Kindergarten

6. Recognize that numbers can be used to count and collection of things.

Grade 1

5. Create individual conclusions about group findings.

7. Make estimates to compare familiar lengths, weights and time intervals.

9. Describe things as accurately as possible and compare with the observations of others.

Grade 2

5. Use evidence to develop explanations of scientific investigations. (What do you think? How do you know?)

6. Recognize that explanations are generated in response to observations, events and phenomena.

9. Use whole numbers to order, count, identify, measure and describe things and experiences.

10. Share explanations with others to provide opportunities to ask questions, examine evidence and suggest alternative explanations.

Standard: Scientific Ways of Knowing

Benchmark A: Recognize that there are different ways to carry out scientific investigations. Realize that investigations can be repeated under the same conditions with similar results and may have different explanations.

Indicators:

Kindergarten

2. Recognize that people are more likely to accept your ideas if you can give good reasons for them.

Grade 1

1. Discover that when a science investigation is done the same way multiple times, one can expect to get very similar results each time it is performed.

2. Demonstrate good explanations based on evidence from investigations and observations.

Grade 2

1. Describe that scientific investigations generally work the same way under the same conditions.

Benchmark B: Recognize the importance of respect for all living things.

Indicators:

Kindergarten

3. Interact with living things and the environment in ways that promote respect.

Benchmark C: Recognize that diverse groups of people contribute to our understanding of the natural world.

Indicators:

Grade 2

4. Demonstrate that in science it is helpful to work with a team and share findings with others.

GRADES 3-5

Standard: Life Sciences

Benchmark A: Differentiate between the life cycles of different plants and animals.

Indicators:

Grade 4

5. Describe how organisms interact with one another in various ways (e.g., many plants depend on animals for carrying pollen or dispersing seeds)

Benchmark B: Analyze plant and animal structures and functions needed for survival and describe the flow of energy through a system that all organisms use to survive.

Indicators:

Grade 3

2. Relate animal structures to their specific survival functions (e.g., obtaining food, escaping or hiding from enemies).

3. Classify animals according to their characteristics (e.g., body coverings and body structure).

Grade 4

2. Relate plant structures to their specific functions (e.g., growth, survival and reproduction).

Standard: Scientific Inquiry

Benchmark B: Organize and evaluate observations, measurements and other data to formulate inferences and conclusions.

Indicators:

Grade 3

2. Discuss observations and measurements made by other people.

3. Read and interpret simple tables and graphs produced by self/others.

5. Record and organize observations (e.g., journals, charts and tables).

Grade 5

2. Evaluate observations and measurements made by other people and identify reasons for any discrepancies.

3. Use evidence and observations to explain and communicate the results of investigations.

Benchmark C: Develop, design and safely conduct scientific investigations and communicate the results.

Indicators:

Grade 3

6. Communicate scientific findings to others through a variety of methods (e.g., pictures, written, oral and recorded observations).

Grade 4

4. Explain the importance of keeping conditions the same in an experiment.

5. Describe how comparisons may not be fair when some conditions are not kept the same between experiments.

Standard: Scientific Ways of Knowing

Benchmark A: Distinguish between fact and opinion and explain how ideas and conclusions change as new knowledge is gained.

Indicators:

Grade 5

1. Summarize how conclusions and ideas change as new knowledge is gained.

Benchmark B: Describe different types of investigations and use results and data from investigations to provide the evidence to support explanations and conclusions.

Indicators:

Grade 5

3. Explain why an experiment must be repeated by different people or at different times or places and yield consistent results before the results are accepted.

Benchmark C: Explain the importance of keeping records of observations and investigations that are accurate and understandable.

Indicators:

Grade 3

2. Keep records of investigations and observations and do not change the records that are different from someone else's work.

Grade 4

2. Record the results and data from an investigation and make a reasonable explanation.

4. Explain why keeping records of observations and investigations is important.

GRADES 6-8

Standard: Life Sciences

Benchmark B: Describe the characteristics of an organism in terms of a combination of inherited traits and recognize reproduction as a characteristic of living organisms essential to the continuation of the species.

Indicators:

Grade 7

8. Investigate the great diversity among organisms.

Standard: Scientific Ways of Knowing

Benchmark A: Use skills of scientific inquiry processes (e.g., hypothesis, record keeping, description and explanation).

Indicators:

Grade 6

2. Describe why it is important to keep clear, thorough and accurate records.