



## Indiana 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

Indiana Science Standards addressed by this program:

#### GRADES K-6<sup>th</sup>

##### **Number Sense:**

###### 2<sup>nd</sup> Grade

- 2.1.1 Count by ones, twos, fives and tens to 100. Example: Count 74 pencils by groups of tens and twos.

##### **Standard 1: The Nature of Science and Technology**

###### *The Scientific View of the World*

###### 3<sup>rd</sup> Grade

- 3.1.1 Recognize and explain that when a scientific investigation is repeated, a similar result is expected.

###### 4<sup>th</sup> Grade

- 4.1.1 Observe and describe that scientific investigations generally work the same way in different places.

###### 5<sup>th</sup> Grade

- 5.1.1 Recognize and describe that results of similar scientific investigations may turn out differently because of inconsistencies in methods, materials, and observations.

###### *Scientific Inquiry*

###### Kindergarten

- K.1.1 Raise questions about the natural world.

###### 1<sup>st</sup> Grade

- 1.1.2 Investigate and make observations to seek answers to questions about the world, such as "in what ways do animals move?"

###### 3<sup>rd</sup> Grade

- 3.1.2 Participate in different types of guided scientific investigations, such as observing objects and events and collecting specimens for analysis.

- 3.1.3 Keep and report records of investigations and observations using tools, such as journals, charts, graphs, and computers.

- 3.1.4 Discuss the results of investigations and consider the explanations of others.

###### 4<sup>th</sup> Grade

- 4.1.2 Recognize and describe that results of scientific investigations are seldom exactly the same. If differences occur, such as a large variation in the measurement of

plant growth, propose reasons for why these differences exist, using recorded information about investigations.

*The Scientific Enterprise*

Kindergarten

K.1.2

Begin to demonstrate that everyone can do science.

1<sup>st</sup> Grade

1.1.3

Recognize that and demonstrate how people can learn much about plants and animals by observing them closely over a period of time. Recognize also that care must be taken to know the needs of living things and how to provide for them.

2<sup>nd</sup> Grade

2.1.5

Demonstrate the ability to work with a team but still reach and communicate one's own conclusions about findings.

3<sup>rd</sup> Grade

3.1.5

Demonstrate the ability to work with a team but still reach and communicate one's own conclusions about findings.

4<sup>th</sup> Grade

4.1.3

Explain that clear communication is an essential part of doing science since it enables scientists to inform others about their work, to expose their ideas to evaluation by other scientists, and to allow scientists to stay informed about scientific discoveries around the world.

**Standard 2: Scientific Thinking**

*Computation and Estimation*

Kindergarten

K.2.1

Use whole numbers, up to 10, in counting, identifying, sorting, and describing objects and experiences.

1<sup>st</sup> Grade

1.2.1

Use whole numbers, up to 100, in counting, identifying, measuring, and describing objects and experiences.

1.2.2

Use sums and differences of single digit numbers in investigations and judge the reasonableness of the answers.

3<sup>rd</sup> Grade

3.2.1

Add and subtract whole numbers mentally, on paper, and with a calculator.

*Communication*

4<sup>th</sup> Grade

4.2.4

Use numerical data to describe and compare objects and events.

*Critical Response Skills*

3<sup>rd</sup> Grade

3.2.7

Ask "How do you know?" in appropriate situations and attempt reasonable answers when others ask the same question.

**Standard 4: The Living Environment**

*Diversity of Life*

Kindergarten

K.4.1

Give examples of plants and animals.

K.4.2

Observe plants and animals, describing how they are alike and how they are different in the way they look and in the things they do.

2<sup>nd</sup> Grade

2.4.1

Observe and identify different external features of plants and animals and describe how these features help them live in different environments.

3<sup>rd</sup> Grade

- 3.4.1 Demonstrate that a great variety of living things can be sorted into groups in many ways using various features, such as how they look, where they live, and how they act, to decide which things belong to which group.

6<sup>th</sup> Grade

- 6.4.3 Describe some of the great variety of body plans and internal structures animals and plants have that contribute to their being able to make or find food and reproduce.

*Interdependence of Life*

1<sup>st</sup> Grade

- 1.4.3 Observe and explain that animals eat plants or other animals for food.

- 1.4.4 Explain that most living things need water, food, and air.

2<sup>nd</sup> Grade

- 2.4.3 Observe and explain that plants and animals both need to take in water, animals need to take in food, and plants need light.

- 2.4.4 Recognize and explain that living things are found almost everywhere in the world and that there are somewhat different kinds in different places.

*Interdependence of Life and Evolution*

4<sup>th</sup> Grade

- 4.4.3 Observe and describe that organisms interact with one another in various ways, such as providing food, pollination, and seed dispersal.

5<sup>th</sup> Grade

- 5.4.7 Explain that living things, such as plants and animals, differ in their characteristics, and that sometimes these differences can give members of these groups (plants and animals) an advantage in surviving and reproducing.

6<sup>th</sup> Grade

- 6.4.9 Recognize and explain that two types of organisms may interact in a competitive or cooperative relationship, such as producer/consumer, predator/prey, or parasite/host.

**Standard-5: The Mathematical World**

*Numbers*

3<sup>rd</sup> Grade

- 3.5.2 Observe that and describe how some measurements are likely to be slightly different, even if what is being measured stays the same.

*Reasoning and Uncertainty*

2<sup>nd</sup> Grade

- 2.5.4 Begin to recognize and explain that people are more likely to believe ideas if good reasons are given for them.