



What Do I Need to Survive?

Introduction

Objective:

Introduce students to research/data collection as they find out characteristics of the animals from *The Jungle Book* production. Working cooperatively, the students collect data and record their findings in a chart. Comparisons and predictions about the animals result from the data that is collected and shared.

Academic Content Standards:

✦ National Standards

- Science as Inquiry
 - Abilities necessary to do scientific inquiry
 - Understanding about scientific inquiry
- Life Science
 - Characteristics of organisms
 - Lifecycle of organisms
 - Organisms and the environment

✦ Ohio Standard

- Life Sciences - Students demonstrate an understanding of how living systems function and how they interact with the physical environment. This includes an understanding of the cycling of matter and flow of energy in living systems. An understanding of the characteristics, structure and function of cells, organisms and living systems will be developed. Students will also develop a deeper understanding of the principles of heredity, biological evolution, and the diversity and interdependence of life. Students demonstrate an understanding of different historical perspectives, scientific approaches and emerging scientific issues associated with the 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).

Grade 2 - Indicator 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.)

Grade 3 Indicator 1:

Compare life cycles of different animals including birth to adulthood, reproduction and death (e.g., egg-tadpole-frog, egg-caterpillar-chrysalis-butterfly).

□ Scientific Inquiry

Students develop scientific habits of mind as they use the processes of scientific inquiry to ask valid questions and to gather and analyze information. They understand how to develop hypotheses and make predictions. They are able to reflect on scientific practices as they develop plans of action to create and evaluate a variety of conclusions. Students are also able to demonstrate the ability to communicate their findings to others.

Benchmark A:

Ask a testable question.

Grade 2 - Indicator 1:

Ask "how can I/we" questions

Indicator 5:

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

Grade 3 - Indicator 2:

Discuss observations and measurements made by other people.

Indicator 5:

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

Getting Started

Materials:

- File cards for each student
- Research materials: include non-fiction books, Internet sites, Zoo books and cards about the animals in the production and jungle/rainforest habitat. Preview Internet sites for credibility and readability for your particular students. You might want to bookmark these on the computers the students will use and then direct them directly to the bookmark, which will link them.
- Animal chart for groups and/or class
- Pencils
- Notebook paper
- Construction paper cut to fit the animal name section of the class chart, will be used for illustration of the animal
- Colored pencils, crayons, markers

Vocabulary:

- Environment
- Habitat
- Characteristics
- Body structures
- Life cycle
- Enemies
- Survival
- Basic needs

Technology:

- Create the chart on Excel or a table in Word. Allow students to enter their information directly onto the chart. Display on classroom monitor for other students to see data as it is collected and recorded.
- Use Inspiration program to organize data instead of a chart or web form.

Lesson

Orientation Activity:

1. Show a short segment of a video that contains the animals from the production (wolf, monkey, elephant, python, brown bear, panther, and tiger) to give the students some background knowledge of the surroundings in

which each animal lives. (The National Geographic videos have good clips, as does United Streaming through the Internet.)

2. Ask the class: How can we find out information about the lives of the animals in the production?

Orientation Activity:

1. Divide students into groups of 7. Each student draws the name of the animal that they will research. During the research, the students will answer questions and write the information on a file card. These cards are then used to fill in a group chart about all of the animals in the production. If it works better for your class, assign 2-3 students for each animal and have them work together to gather the research data about the same animal. This can then be combined with other groups to create one class chart of the data.
2. Hand out the cards to students with the questions written on each card.
Questions include:
 - What does the animal eat? How does it find/get its food?
 - Where does the animal live? What is that place like?
 - What covers the body of the animal? What special body parts does it have to make it different from other animals?
 - Who are its enemies? How does it hide or escape from them?
 - What changes happen to the animal as it grows up? This is called its life cycle. You will probably see pictures of the animal in different stages. These put together make the life cycle from when it was born until it dies.
3. Provide time for the students to look for the answers to the questions. They will first look at the pictures and then will try to read the text. It is important that the reading level of the text be developmentally appropriate for the children in your class. You may want to include help from the librarian and/or parent helpers for those students who have difficulty sorting through lots of information.
4. If the students are working in a large group, and each student with a different animal, have them record their findings on a group chart (see attached) before bringing it to the whole group discussion. If 2-3 students are working on an animal, have them bring their findings to the whole group discussion.
5. Monitor the research and help those students who are struggling. Opening a book and pointing out where to start may be all that is necessary to get them going. Others may need you to identify the page/paragraph in which they will find the information. Adjust the requirements to fit the needs of your students.
6. Each group creates an illustration of their animal on a square of construction paper that fits into the section of the class chart where the animal is named. It might be helpful to make multiple copies of the illustrations, either by the students or photocopying the ones that they make.
7. Once animal research is complete, fill in the class chart and display for all to see. Conduct a class discussion about their data.
 - How can we find out about the animals in the production using this chart?
 - How does it organize the information?
 - Looking only at the illustrations, what animal stands out as being very different from the other animals? How do you know this?

- Looking only at the data in the chart, what animal stands out as being very different from the others? How do you know?
 - How can we sort/classify/organize the animals in a way different than on this chart? (You are looking for suggestions for classifications. The most obvious will be by the headings across the top of the chart. This will help students see that the column has similarities/differences.)
 - What animals would you group together under the classifications you just created? (Body structures, body coverings, how they move, what they eat, where they live/sleep, etc.) Accept multiple suggestions and use the pictures to classify the animals.
 - How can we tell what helps the animal meet its basic needs (air, water, shelter, food, and space) from the information on the chart?
 - How does the chart tell you about the habitat in which these animals live?
8. Copy the chart for individual students to use or keep it posted for all to see.

Evaluation and Follow-Up

Assessment Tools and Methods:

- Collect the file cards and charts created by the individual students. Look for correct information and answers to the given questions. Assess the completeness of the information.
- Ask the students to select another habitat or environment that you have studied.
- They then choose one of the animals, usually the one they researched since they know the most about it, and explain: What if the (animal's name) was suddenly moved to a new habitat/environment? What changes would the animal need to make to survive and meet its basic needs? Use the chart to help you write your answer.

Interdisciplinary Connections:

Language Arts: Introduce a bibliography. Have students write down the name of the book and/or website where they obtained their information. Conduct a mini-lesson of where to find the information and how to write it. Post an example on the board as a model for students.

Geography: Locate the environment/habitat on the globe/map. Identify the type of climate. How do you know that the climate has an impact on the animal and its characteristics?



What Do I Need to Survive? Data Collection Chart

	What food is eaten?	How does it get food?	Body covering	Body structures	Environment/habitat	Enemies and how it hides/escapes	Life cycle stages
Wolf							
Elephant							
Brown Bear							
Panther							
Tiger							
Monkey							
Python							