



\* Science

# Habitat Buddies

Every living thing has basic needs that must be met to live and survive. Noah knew this and created a variety of environments and animal habitats on board the Ark in support of animals' physical structures, activities and behaviors. His challenge, is to decide who goes with whom, in which habitat and why.

## Kentucky Science Standards

Patterns, Systems, Scale and Models, Constancy, and Change Over Time  
(2.2-2.6) Grades K-3

### **Animal Families & Classification**

#### **Academic Expectations:**

2.3 Students identify and analyze systems and the ways their components work together or affect each other.

2.4 Students use the concept of scale and scientific models to explain the organization and functioning of living and nonliving things and predict other characteristics that might be observed.

## Ohio Science Standards: Life Sciences

### **Animal Families & Classification**

#### **Benchmarks Grades K-2**

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

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

#### **Grade 3**

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.

### Objective:

Students will:

- Recognize the unique characteristics of animal families based on physical structures and functions.

### Assessment:

Students will be able to:

- Chart comparisons of the characteristics, functions, structures, basic needs, and activities of a variety of animals and animal families.
- Identify similarities and differences in animals and animal families.

Sample selected response items to gauge student understanding:

1. The basic needs of an animal include all of the following except\_\_\_\_\_.
  - a. Water
  - b. clothing
  - c. food
  - d. shelter

*Answer: b. clothing*

2. Animals that live on land have different characteristics for survival than those that live in the water. Name 2 things that are different for survival in these 2 environments.

*Answer: e.g., the way an animal breathes, the way an animal moves, the kind of shelter it needs, the space available for the animal's activities.*

3. Choose one of the animals from our class chart. Describe the environment that the animal requires and how its body parts will help it survive.

*Answer: Individual student response. Emphasis on specific physical animal structures and functions.*

### **Vocabulary:**

- Basic need
- Survival
- Environment
- Structure
- Function
- Similarity
- Difference

### **Materials:**

- Models of a variety of animals that represent different animal families (plastic, clay, pictures- grade level appropriate) or collaborate with an Art Specialist to have students create models of animals from a variety of materials
- Chart paper to record categories of information (animal name, body structures, food, shelter needs, activities)
- Drawing paper cut to size to fit within the animal name section on the chart
- Crayons, markers, colored pencils, paint, etc.
- Cards for students to label their animal pictures
- Handout

### **Activity**

#### **Animal Care(acteristics)**

##### **Teacher will:**

1. Create a large wall chart with columns to record animal facts and information. (Have the animal name section large enough to accommodate a picture of an animal.)
2. Determine the variety of animals to use for student comparison. Collect additional reference resources for students to read and use for fact gathering. Include pictures for the same animals as well.
3. Have students gather and sit in a circle. Distribute cards with visuals of animal teeth, feet, body coverings, and shelters, etc., and place in the center of the circle. Students will group like images into the categories based on a representative picture of an animal for the different animal families—amphibians, birds, mammals, reptiles, fish, etc. Students will

- provide rationale for their decision-making. Emphasis on animal similarities and differences.
4. Explain to students their task to explore, group and "classify" animals into families.
  5. Model how to observe, collect and record data about an animal on the chart. Demonstrate how to examine pictures/models to identify physical animal body structures (e.g., the shape of the nose, the type of mouth/teeth, the kind and texture of body coverings, etc.); how to identify the type of food, shelter requirements, and daily activity of an animal.
  6. Distribute to student pairs, the Handouts, "Animal Care(acteristics): Form and Function", and "Animal Classification, Guiding Questions". Students will gather information about a specific animal to complete chart categories, and share information by adding to the class wall chart.
  7. Haves students upon completion of fact finding, to draw pictures of their animal. Students will include one close up rendition of a body feature that helps with the animal's survival, and another rendition of the entire animal. Post student pictures labeled with the animal name and body part on the class wall chart.
  8. Examine the chart with students to observe similarities and differences between animals with regards to physical body structures, functions and activities.
  9. Engage students in the classification and organization of the animals into like groups or "families."
  10. Facilitate discussion as to how such groupings help with the understanding of a variety of animals. Prompt students to think about who would use such information (e.g., zoo keepers, farmers, marine biologists, veterinarians, etc.)
  11. Have students consider and reflect upon how the classification of animals helped Noah with his task of caring for those aboard the Ark.



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**Handout: Animal Classification Chart**

Name \_\_\_\_\_

**Animal Care(acteristics): Form and Function**

<b>Animal</b>				
<b>Body Covering</b>				
<b>Other body structures</b> <ul style="list-style-type: none"><li>• Backbone</li><li>• Mouth</li><li>• Feet</li><li>• Tail, fin, etc.</li></ul>				
<b>Breathing structure</b>				
<b>Method for gathering and eating food</b>				
<b>Type of shelter required</b>				
<b>Daily activities</b> <ul style="list-style-type: none"><li>• Nocturnal</li><li>•</li></ul>				
<b>Method for birthing young</b>				