

# Fur, Feathers, and Scales

## GENERAL INFORMATION

### THEME

Animals have unique traits that allow them to be put into similar groups based on their traits.

### SUB THEMES

1. Scientists have put animals into different groups to better understand them.
2. Animals in these groups have special adaptations to help them live in different environments.
3. Senses help animals explore their environment, although some animals depend on certain senses more than others.

### VOCABULARY

Mammal, bird, reptile, adaptations, senses, fur, feathers, scales, backbone, cold-blooded, warm-blooded

### ACTIVITY MATERIALS

Fur artifacts, egg artifacts (bird & reptile), feather artifacts, scale artifacts, live animal ambassadors OR preserved specimens

### METHODS

#### INTRODUCTION

Introduce yourself and state the title of the activity. Preview the main points of the activity and give students an idea of what they will be doing. Conversationally state the theme and sub themes. Ask: **What are some different types of animals you have seen?** Explain that there are so many animals that scientists have not even discovered all of them yet! Because there are so many animals, scientists started grouping them by their similarities to better understand them. Explain that animals come in all shapes, sizes, colors, and they can be found all over the world. Ask: **What are some ways that we can group animals by their similarities** (where they live, what they eat, size, shape, color, number of legs, etc.)? Tell students that one way scientists have grouped animals is by whether or not they have a backbone. Have students stand up and feel their own backbones to help them understand this point. They are part of the group with backbones. Ask: **Can you think of any animals that do not have backbones** (spiders, flies, snails, and worms)?

Next, animals with backbones are grouped into smaller groups based on what they look like, how they stay warm, and how their babies are born. Explain that the students are going to learn about

## Teacher's Corner

### Grade Level(s)

1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup>

### Grade Level Expectations

GLE 0107 and GLE 0207

-Inq.1: Observe the world of familiar objects using the senses and tools.

GLE 0107

-1.1: Recognize that living things have parts that work together.

GLE 0207

-1.1: Recognize that plants and animals are made up of smaller parts and use food, water, and air to survive.

-5.1: Investigate the relationship between an animal's characteristics and the features of the environment where it lives.

### State Performance Indicators

SPI 0307

-5.1: Investigate an organism's characteristics and evaluate how these particular features enable it to survive in a particular environment.

## Fur, Feathers, and Scales

three groups of animals that have backbones and they will get to meet a few ‘animal ambassadors.’

### ACTIVITY

The first group of animals with backbones about which they are going to learn is mammals. Ask: **What makes mammals different from other animals?** Explain that one of the most obvious differences between mammals and other animals is that mammals have fur. Pass around fur artifacts and have students name different examples of mammals. Fur helps mammals stay warm in cool weather and cool in warm weather. Another thing that makes mammals unique is that their babies are not hatched from an egg, but rather they are born live. Ask: **What do baby mammals drink to survive** (milk)? Explain that mammals are the only group of animals that get milk from their mother. Being warm-blooded is another trait that makes mammals different, although other animals also keep warm this way. This means that their body temperature stays the same regardless of the temperature around them. Bring out the mammal animal ambassador and review how it uses its senses.

The second group of animals is birds. Ask: **What is a bird and how is it different from other animals?** Explain that the biggest difference between birds and other animals is that birds have feathers covering their body. Pass around feather artifacts and have students name different examples of birds. Feathers protect birds from cold, rain, heat, wind, and snow. Birds also have wings. Ask: **Why are feathers light?** Explain that light feathers help to keep the bird in the air. Review some characteristics of the feather that make it aerodynamic. Tell that students that not all birds can fly. Ask: **Can you think of any birds that do not use their wings to fly** (penguin, ostrich)? Baby birds are hatched from hard-shelled eggs and do not drink milk from their mothers. Pass around egg artifacts. Mother birds feed their babies food that they have eaten and then regurgitated up for the baby to eat. Birds are also warm-blooded. Bring out the bird animal ambassador and review how it uses its senses.

The third group of animals is reptiles. Ask: **What makes reptiles different from mammals and birds?** Explain that reptiles have neither fur nor feathers, but are covered by overlapping, dry scales. Pass around scale artifacts and have students name different examples of reptiles. These scales are tough and they keep the animal safe and help to absorb heat. There are different kinds of scales, some of which cover the shell of a turtle (show example). Ask: **Are reptiles born by hatching out of eggs like birds or live birth like mammals** (both)? Explain that some reptiles hatch out of soft-shelled eggs (like turtles) and some are from live birth (like some snakes). Either way, reptiles do not drink milk like mammals. Pass around egg artifacts. Unlike birds and mammals, reptiles are not warm-blooded and cannot stay warm on their own. Ask: **How do you think reptiles stay warm** (sun-bathing)? Explain that this is why they are not found in really cold places. Bring out the reptile animal ambassador and review how it uses its senses.

### WRAP-UP

Let the group know that the activity is coming to an end. Conversationally review the theme and sub themes. Collect the data sheets. Give the teachers any of the materials that students are able to take home with them.

### ACKNOWLEDGEMENTS

- Copyright © 2009 Healing Stones Foundation. All rights reserved.
- Activity developed by Melissa Squirlock; February 2009.