

Scales, Feathers and Fur

This packet is to help introduce your students to terms and ideas that will be discussed during your visit to Peoria's Glen Oak Zoo. It is designed to enhance your program experience, either through class prep or follow-up.

By using the vocabulary, activities and ideas it will help reinforce the program and meet the State Standards listed on page 2.

Terms to introduce to students:

- Endoskeleton- an internal supporting skeleton found in vertebrates
- Exoskeleton- a hard outer structure that provides protection or support for an organism
- Scales- one of the many small plate-like dermal or epidermal structures that form the external covering of fishes, reptiles and some mammals
- Feathers- one of the light, flat growths forming the plumage of birds
- Skin- the membranous tissue forming the external covering of an animal
- Cold Blooded- (ectothermic)-an organism that regulates its body temperature largely by exchanging heat with its surroundings
- Warm Blooded- maintaining a relatively constant and warm body temperature independent of environmental temperature

Ideas covered in program:

- The difference between exoskeleton and endoskeleton; what animals did they see with each (possibilities include cockroach and tarantula for exoskeleton and armadillo, screech owl, snake for endoskeleton).
- Differences in coverings and heating for warm-blooded vs. cold-blooded animals (cold-blooded animals like reptiles are going to be covered in scales-better design to absorb sunlight- and warm-blooded animals like mammals and birds will be covered in fur and feathers to trap and keep the heat).
- That different animals are covered with different things (we talk about different animals in terms of what they are covered with)

Activities for students:

- Using plastic/stuffed animals, have the students separate them into types (animals with fur, animals with feathers)
- Show students pictures of animals and have them name the types of coverings (scales, feathers or fur).
- Have students write about the animals they see everyday/saw during the program, noting their coverings.
- Using a microscope, have students look at their hair, discussing what they are seeing (if possible compare to cat/dog hair, cotton fibers, feathers and scales) Have them look at the different parts, can compare to attached pictures.
- Design an animal: students can make up their own animal, long/short legs, run/swim, scales/feathers. Discuss why they made their animal the way they did.

State Standards met by:

Listening to the program-

4.A.1a-d; 12.A.1a-b; 12.B.1a-b; 12.C.1b; 13.A.1a

Writing about the animals they saw-

3.A.1; 3.B.1a-b; 5.A.1a-b; 5.B.1a-b; 5.C.1a-b

Separating pictures/animals into groups according to coverings and discussing.

4.B.1a-b

Parts of a feather

