

An Animal for All Seasons

This packet is to help introduce your students to terms and ideas that will be discussed during your visit to Peoria 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:

- Biofact-an object found in nature including (but not limited to) feathers, eggs, teeth, and bones
- Climate-the weather conditions in a particular region in regards to temperature, precipitation, and wind
- Cold-blooded-an organism that regulates its body temperature by exchanging heat with its environment
- Endoskeleton-an organism whose support is located on the inside
- Exoskeleton-an organism whose support is located on the outside
- Precipitation-any form of water such as rain, sleet, or snow
- Warm-blooded-an organism which maintains its constant body temperature independent of the environment

Ideas covered in program:

- Cold-blooded and warm-blooded; discussing animals in each group
- Looking at the four seasons and situations that would pose problems for the animals as they go through the seasons
- Discussing different climates: rainforest, desert, Arctic, etc. and possible adaptations that animals would need to survive in these extremes
- Students should be able to come up with some animals that could not live in the extreme climates and discuss why.
- Focus on how humans have "borrowed" adaptations from other animals. When we go in the water, how are we like a fish? (swim fins) When we travel to very cold climates, how are we like a polar bear? (fur parka) etc.
- Hibernation and migration, 2 ways animals deal with cold weather, looking at whether this is a learned or inherited behavior.

Activities for Students:

ANIMALS THERE

- Choose one of the animals that were presented at the zoo and discuss its adaptations for the climate that it is from. Also discuss the possible problems that it would have if it lived in Central Illinois. What could you change to make it fit here in Illinois.

ANIMALS HERE

- Have the class list all of the different animals that they can encounter in and around their local environment. What are various adaptations for each of these animals that help them survive the seasons that we experience in Central Illinois?

WHO GOES THERE?

- Have students research an animal that fits an unusual environment/extreme environment. For example, how could an animal survive in a cave? What special adaptations would it need? Students can present their animals to the class.

SOLAR SENSATION

What you will need- foil
Paint- white and black

Make two foil mittens completely cover your hands. Paint the top of one white and the other black. Which one do you think is going to heat up first and why? Now hold both hands under a bright light or go into the sun. Which one warms up first? Was it the one you thought? How can an animal's coloring affect its body temperature?

COOLING SENSATION

What you will need- spray bottle filled with water
Spray each student's left arm with water from a water bottle (be sure to explain that it is only water). Which one do you think will stay cooler and why? Have the students wave both arms in the air. Discuss which arm felt cooler. Was it the one they thought? The sensation of evaporation provides a cooling feeling. Some animals that live in hot areas with water access will wet themselves and then sun (such as wallabies). This process provides cooling for the body.

WHAT SEASONS MEAN TO THEM

- Sketch in a journal, or a large sheet of paper divided into 4 sections, a picture of what each season means to them.

State Standards met by:

Listening to the program:
4.A.2b-c; 4.B.2b; 12.A.2b

Animals here:

3.A.2; 3.B.2a-d; 3.C.2a; 11.A.2a; 11.B.2a; 12.B.2b; 17.B.2b

Animals there:

3.A.2; 3.B.2a-d; 3.C.2a; 11.A.2a; 11.B.2a; 12.B.2b; 17.B.2b

Who goes there:

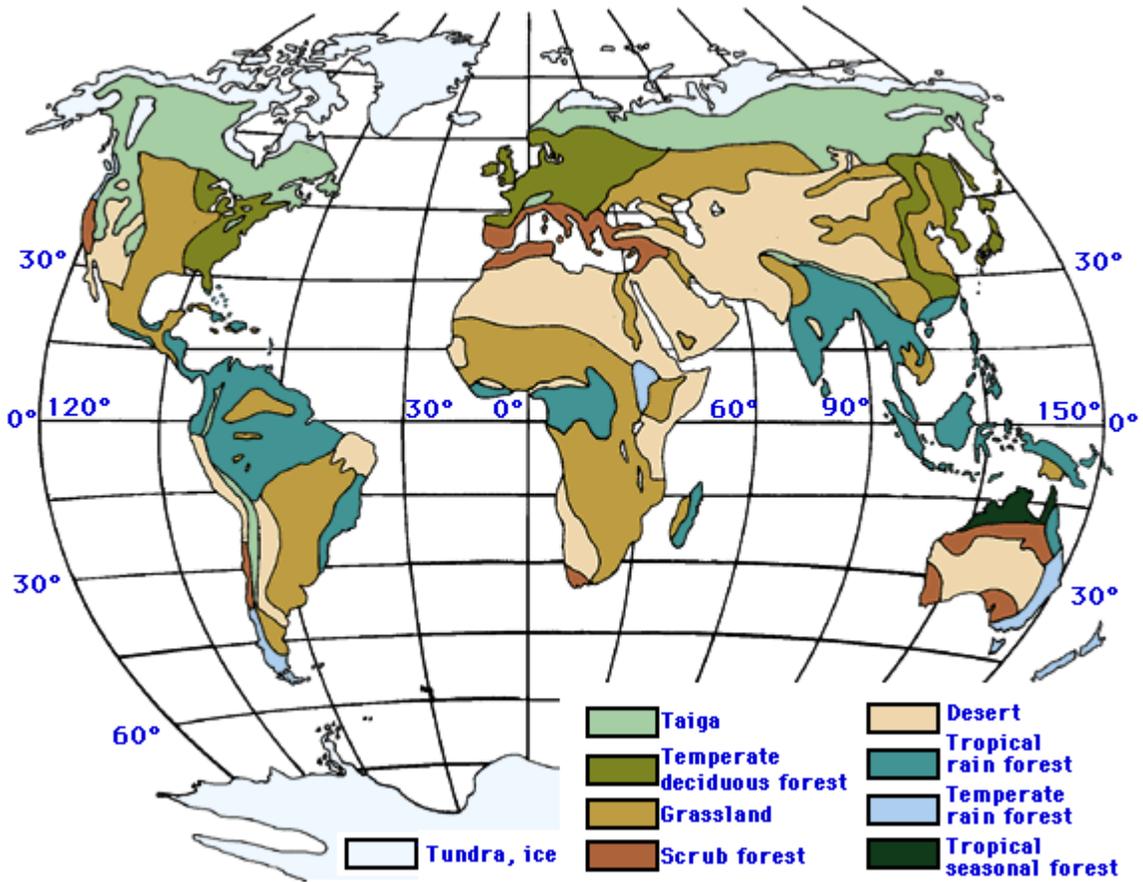
4.B.2a; 4.B.2c; 5.A.2a; 5.A.2b; 5.C.2b; 12.B.2b; 17.B.2b

Solar/Cooling Sensations:

11.A.2a; 11.A.2b; 12.C.2a

What seasons mean to them:

26.B.2d



The world's major biomes