Grade 3 Curriculum Links

Science

Topic D: Hearing and Sound

Overview:

Students explore the nature of sound, its sources, its qualities and what it is. They learn that sound is vibration and that changes in vibration can affect the loudness, pitch and quality of sound. They learn about sound travel by studying what things carry sound, what things make it louder or softer, and what happens to sound when it reaches their ears. The sensitivity of human ears and those of other animals is examined, as students learn about the safe use of this valuable sense.

General Learner Expectations

Students will:

3–9 Describe the nature of sound, and demonstrate methods for producing and controlling sound.

Specific Learner Expectations

Students will:

2. Recognize that sound is the result of vibration; and demonstrate that the larger the vibration, the louder the sound.
4. Recognize that pitch is the result of differences in the rate of vibration, and predict how a change in the rate of vibration will affect a sound.
9. Compare the range of hearing in humans to that in other animals; e.g., dogs and bats.

To Enhance:

1. Identify examples of vibration.
13. Explain the role that sound plays in communication.

Topic E: Animal Life Cycles

Overview:

Students learn about the growth and development of animals and discover that different animals have different life cycles. By observing the life cycle of one small animal from its earliest stage to adulthood, students acquire a reference point for the study of other animals and come to appreciate the beauty and fragility of life. Students learn that the egg, larva, pupa and adult stages that are characteristic of many insects represent a different life story from that of the egg, young, adult life cycle that is common to most vertebrate animals. In studying these

animals, students learn about the changes in needs of the young as they grow and develop and about the changing relationship between these animals and their environment.

General Learner Expectations

Students will:

3–10 Describe the appearances and life cycles of some common animals, and identify their adaptations to different environments.

3–11 Identify requirements for animal care.

Specific Learner Expectations

Students will:

2. Observe and describe the growth and development of at least one living animal, as the animal develops from early to more advanced stages. The animal(s) should be from one or more of the following groups: mammals, birds, fish, reptiles, amphibians, insects. Suggested examples include: gerbils, guppies, mealworms, tadpoles, worms, butterflies/moths. Additional examples from other animal groups might also be included: brine shrimp, isopods, spiders.
8. Identify examples of environmental conditions that may threaten animal survival, and identify examples of extinct animals.
9. Recognize that habitat preservation can help maintain animal populations, and identify ways that student actions can assist habitat preservation.
10. Demonstrate knowledge of the needs of animals studied, and demonstrate skills for their care.

To Enhance:

1. Classify a variety of animals, based on observable characteristics; e.g., limbs, teeth, body covering, overall shape, backbone.
3. Predict the next stages in the growth and development of at least one animal from each of the following groups: mammals, birds, fish, reptiles, amphibians, insects; and identify similarities and differences in their developmental sequences.
4. Identify the food needs of at least one animal from each of the following groups: mammals, birds, fish, reptiles, amphibians, insects; and describe changes in how each animal obtains food through different stages of its life.
5. Demonstrate awareness that parental care is characteristic of some animals and not of others, and identify examples of different forms of parental care.
6. Demonstrate awareness that animals require different habitats in order to meet their basic needs of food, water, shelter and space.
7. Recognize adaptations of a young animal to its environment, and identify changes in its relationship to its environment as it goes through life; e.g., tadpoles are adapted for life in an aquatic environment; adult frogs show adaptations to both terrestrial and aquatic environments.