

2010-2011 WHRO VideoClassroom Preview

Series Title:	Wonders Of Vertebrate Life
Curriculum Area:	Science
Grades:	9-12
# of Programs/Length:	5/20:00 minute programs

Produced in 2009, this captivating five-part high school and introductory college level biology series explores the wonders of fish, birds, mammals, amphibians and reptiles, and highlights the current trends in systematic biology and taxonomy. Correlated to state and National Science Standards and AAAS Benchmarks for Science Literacy.

Each program includes a downloadable 25-page comprehensive Instructor's Manual with preliminary and post assessments, laboratory investigations, and vocabulary activities.

1.) The Life Of Birds (Preview Title)

Birds are a vertebrate group with which we are all familiar. This beautiful and colorful video explores the major characteristics, adaptations, and life cycles of this group of animals. Special emphasis is paid to the features that enable birds to fly. Vivid footage from throughout the world also illustrates some of the major groups of birds. Concepts and terminology include: flight, wings, contour feathers, down feathers, endothermic, crop, gizzard, four-chambered heart, amniotic egg, albumin, yolk, incubation, Archaeopteryx, Passeriformes, Piciformes, Charadriiformes, Falconiformes, and Anseriformes.

2.) Features Of Fish

This colorful, lively video explores the fascinating features of fishes. The major characteristics of this widely diverse group of vertebrates are described through the use of live-action video. Special attention is paid to the major groups of fishes and their unique features. Concepts and terminology include: ectothermic, scales, swim bladder, olfactory lobe, lateral line, gills, anadromous, ichthyologist, agnatha, lamprey, hagfish, chondrichthyes, cartilage, shark, skate, ray, osteichthyes, lobe-finned fishes, lungfishes, and ray-finned fishes.

3.) Magnificent Mammals

We are all familiar with common examples of mammals such as cats, dogs, and horses. Humans are also mammals. This action-packed program illustrates the common characteristics of mammals while also exploring some of the major mammalian groups. Terminology and concepts include: body hair, endothermic, mammary glands, cerebrum, differentiated teeth, monotremes, marsupials, placental mammals, rodents, Lagomorphs, Chiroptera, ungulates, Artiodactyla, Perissodactyla, Carnivora, Cetacea, and primates.

4.) Amazing Amphibians & Reptiles

This colorful, fascinating program explores the amazing features of amphibians and reptiles. The major characteristics of these two vertebrate groups are highlighted from vivid video footage captured throughout the world. Special attention is also paid to the fascinating features of specific examples of amphibians and reptiles. Concepts and terminology include: frog, toad, salamander, metamorphosis, double loop circulatory system, Anura, Urodela, Apoda, scales, ectothermic, amniotic egg, dinosaurs, Rhynchocephalia, Tuatara, Chelonia, Squamata, and Crocodilia.

5.) The Classification Of Organisms

For thousands of years scientists have named and categorized the vast array of life on Earth. This video program highlights the major advances concerning the classification of life, more specifically focusing on current trends in systematics and taxonomy. Concepts and terminology include: scientific

name, binomial nomenclature, taxa, domains, Archea, Bacteria, Eukarya, evolutionary, relationships, systematic biology, phylogeny, and taxonomy.