

Snakes and Other Scaled Reptiles

Biological Classification Series

Grade Levels:

Grades 5-10

Subject Areas:

Science

Life Sciences

Biology

Synopsis:

Close-up photography of the rat snake highlights its excellent vision, its sense of smell, its hunting ability and its method of swallowing a victim whole. In comparison, the legs, ear openings and mobile eyelids of lizards are highlighted to isolate the characteristic scaly skin that snakes and lizards have in common. The fangs of poisonous vipers and the shape of their heads are compared to the teeth and rounded heads of the harmless grass snake. Chameleons, geckos, and worm lizards are compared to limbless serpents such as pythons, boas, cobras and vipers.

Learning Objectives: Students will:

Explain the similarities and differences between snakes and lizards.

Recognize the characteristics of poisonous vipers.

Understand how snakes hunt and swallow their prey.

Extend their concept of lizard to include chameleons, geckos and worm lizards and snake to include pythons, boas and cobras.

Vocabulary:

undergrowth, coiled, rat snake, disconcerting, vibrations, venomous, suffocation, induced, hemorrhaging, victim, serpents, mobile, palates, squamata group, omnivorous, asps, triangular head, venom, viper, fangs, inject, molt, chameleons, geckos, saurians, monitor lizards, skinks, worm lizards, limbless, pythons, boas, cobras

Pre-Viewing Discussion:

Do any poisonous snakes live in our environment? How can you tell if a snake is poisonous?

Are snakes and lizards related? What characteristics do they appear to have in common? How are they different from one another?

What is a gecko? Where are geckos found?

What is a python? Where are pythons and cobras found?

What do snakes eat?

Post-Viewing Discussion:

What do rat snakes prefer to eat? How do they kill their prey?

How do rat snakes and aspms smell their prey?

Why do snakes appear to have a menacing look?

Why are snakes able to swallow their victims whole?

What do snakes and lizards have in common? How are they different?

What is the shape of most poisonous snakes heads?

How can you tell that a snake is almost ready to shed its skin?

Further Activities:

Find out which of the five major classification groups snakes and other scaled reptiles are in (i.e. Kingdom, Phylum, Class, Order, Family). Chart the relationships of animals in the largest to the smallest taxonomic groups around them. What characteristics make this group similar to and different from the other groups to which they are related? Then, pick one species from the program and determine its genus and species name, writing them in the proper scientific terminology. Find out why the genus and species name is written the way it is.

Discover the snake that is considered to be the largest in the world. Where does it live; how does it capture its prey, and is it a danger to humans?

Further investigate the signs that a snake is poisonous or deadly. Are these snakes in a special biological classification? What are the distinguishing features of six of these snakes? How do they vary in size, eating habits and hunting methods?

Further investigate the characteristics of geckos. Which of these characteristics is emphasized in popular television advertisements? Do the ads malign the animal in any way? Are the ads based in reality or are they totally fabricated versions of real geckos and their habits?

Related New Dimension Media Titles:

Venom-Survival in Nature series

Animal Babies Born Wild series

Habitats series

Biological Movement series