Snails and Other Gastropod Mollusks
Biological Classification Series

Grade Levels:
Grades 5-10

Subject Areas:
Science
Life Sciences
Biology

Synopsis:

Live-action film footage of the brown garden snail highlights the characteristics that make this animal a gastropod mollusk. The concepts of gastropods (stomach in its foot), branchiae and eye-bearing antennae are further illustrated in the habits and physical characteristics of edible snails, glass nails, slugs, periwinkles, limpets, mud snails and sea slugs. In comparison, the chambered nautilus is discovered to be a cephalopod mollusk, or a mollusk having its head in its foot.

Learning Objectives: Students will:

Understand the characteristics of all gastropod mollusks.

Understand that certain gastropod mollusks have adapted to their marine or river environments by developing branchiae.

Understand that having a spiral or single shell is not a requirement of the classification, gastropod mollusk.

Appreciate the fact that there are 10,000 species of gastropods worldwide.

Vocabulary:

antennae, edible, mollusk, gastropod, respiratory orifice, escargot, edible, brown-lipped, carnivorous, pulmonary orifice, vegetation, branchiae, periwinkles, limpet, algae, cadaver, sea slug, anus, fauna, rasping, marine, terrestrial, nautilus, cephalopod

Pre-Viewing Discussion:

Where are snails often found? Do snails live only in backyard gardens? What other environments can be home to snails?

How many kinds of snails are there? What snail is a great delicacy? What other snails are edible?

What kinds of snails exist in marine environments? Is the sea slug a snail? Why or why not?

Post-Viewing Discussion:

What does gastropod mean? How does the common garden snail exhibit this characteristic?

What snail is carnivorous? What does this snail eat?

How are slugs and snails similar and different?

How do gastropod mollusks breathe? How does the river snail breathe? How does the pond snail breathe?

Why is the sea slug a gastropod mollusk when it has no shell?

How does the habitat of periwinkles and top-shell snails differ from that of garden or forest snails? How do these gastropod mollusks breathe?

Is a chambered nautilus a gastropod mollusk? What kind of a mollusk is it? What does "cephalopod" mean?

Further Activities:

Find out which of the five major classification groups snails and other gastropod mollusks 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 species of gastropod mollusks broadly classified as North American Freshwater Snails. Why is this group of snails in need of conservation? Why do they fascinate so many biologists?

Find accurate drawings of gastropod mollusk shells. Apply these scientific illustrations to the design of fabric, wallpaper or a scrapbook cover. Be sure not to loose accuracy for the sake of artistry.

Investigate the variety of respiratory orifices that can be found in gastropod mollusks. Illustrate these differences in chart form.

What members of the classification, gastropod mollusk, might find their way to a dinner table in England? Investigate the history of snails, limpets, periwinkles and escargot in English cuisine.

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