Arthropods: Organisms with a 3 segmented body , hard exoskeleton, simple nervous system, and antennae.
Mammals: Are warm-blooded, have hair, a large brain and mammary glands to feed their offspring.

Preview and Review Questions:
Who first developed a system of organizing and naming plants and animals. (Carl Von Linne', Linnaeus).

What is the largest and most inclusive category for naming organisms? (The kingdom)

How are bacteria and viruses different? (Viruses are complex genetic material and protein that attack a cell, changing the host's cell molecules to meet their own needs, often killing the cell. Bacteria are true cells.)

What are some examples of how bacteria help man? (Bacteria are used to ferment some foods, tan leather and fixate nitrogen for plants to use.)

Give an example of a symbiotic relationship. (Lichens are one or two species of algae and one species of fungi.)

Give an example of an aquatic plant. (Algae)

What is the reproductive organ for gymnosperms? (The cone)

Which group of seed producers are the largest, most massive and oldest in the world? (The gymnosperms)

Why have the angiosperms been so successful? (Because of their specialized structure that encloses the ovules and seed and the flower's ability to attract insects, birds and mammals for transferring

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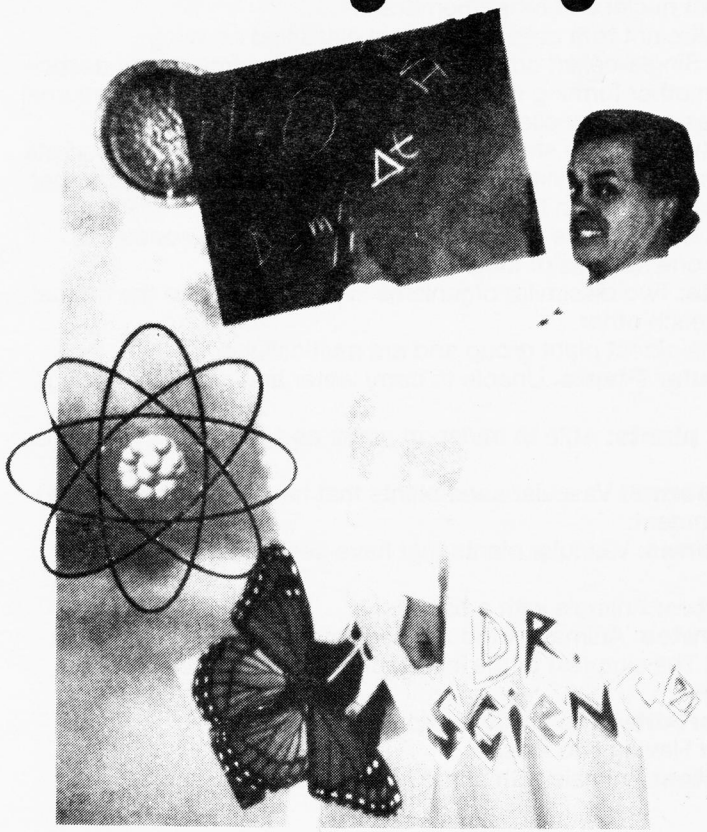
Teacher's Guide

VOL. 5
Classification of Living Things



Classification of Living Things is a discussion of evolutionary changes of all living organisms. Dr. Science thoroughly discusses the kingdoms, Monera, protista, and fungi, along with the Plant and Animal kingdoms. In addition, an excellent discussion of evolutionary adaptation by plants that have evolved are presented. The animal kingdom is excitingly presented, and the theme that all organisms are inter-dependent on one another is throughout the video. Classification of Living Things is an excellent introduction to the kingdoms and their uniqueness.

Vocabulary:

Binomial: Two name naming system for living organisms.
Taxonomy: The process of naming and classifying living organisms.
Monera: Unicellular or single-celled microscopic organisms that lack distinct nuclei and other membranes.
Viruses: Are not true cells and are not classified as living.
Protista: Single-celled organisms that may form from close associations with other forming colonies. They have formed nuclei, internal membranes and organelles.
Fungi: Have a unique structure and digestive system. They secrete enzymes into their environment which digest leaves, fruit and other organic material. Then the fungi absorb the nutrients.
Lichens: A composite organism made of one or two species of algae and one species of fungi.
Symbiosis: Two dissimilar organisms living together for the mutual benefit of each other.
Algae: The oldest plant group and are multicellular.
Nonvascular Plants: Unable to carry water and nutrients through tissues.
Vascular plants: Able to transport water and nutrients through tissues.
Gymnosperms: Vascular seed plants that have seeds exposed to the environment.
Angiosperms: Vascular plants that have seeds in a specialized container.
Vertebrates: Animals with a backbone.
Invertebrates: Animals without a backbone.
Porifera: The simplest of the invertebrates. Aquatic filter feeders like sponges.
Hermaphrodite: The ability to reproduce asexually.
Bilateral: Having two sides.
Coelomates: Animals with a true body cavity.
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Which group of seed producers are the largest, most massive and oldest in the world? (The gymnosperms)

Why have the angiosperms been so successful? (Because of their specialized structure that encloses the ovules and seed and the flower's ability to attract insects, birds and mammals for transferring pollen, the angiosperm is able to reproduce more quickly, unlike the gymnosperm which takes up to two years to reproduce.)

What symbiotic relationship has been developed between the flowers and the animals? (Some birds, bees and beetles have specialized physical characterisitcs that help them get nutrients while pollinating the plants.)