

2006-2007 WHRO Classroom Preview

Series Title: Biology Classics
Curriculum Area: Science, Biology
Grades: 6 - 12
of Programs/Length: 1/31:00 minute program

Understanding the amazing phenomena of life requires an intimate acquaintance with living things. This new program introduces students to four organisms we call the Biology Classics, "classics" not only because they are featured in science textbooks, but because studying them broadens our concept of what it means to be alive. Accompanying the narrated observations are detailed PDF study guides that can be printed for student use.

The Biology Classics: Paramecium, Hydra, Planaria, and Daphnia is a single program with featured sections for each organism.

Paramecium: Observations show how it moves, feeds, digests and assimilates nutrients, achieves water balance, deploys defensive weapons, reproduces and engages in the sexual exchange of genetic material. The narrated observations utilize state of the art microscopy, techniques to present a compelling new picture of Paramecium's life.

Hydra: Observations of Hydra show feeding behavior, detailed microscopy of stinging cells used in capturing prey, two digestive processes (cellular and extracellular), locomotion, reproduction by budding, development of sex organs, and symbiotic guests, both external and internal.

Planaria: The cross-eyed flatworm, Planaria, is both scavenger and predator depending upon opportunity. Observations show food-seeking behavior, the flatworm's feeding method, locomotion (produced by a carpet of cilia), internal anatomy, and reproduction through the remarkable process of regeneration.

Daphnia: Daphnia is a classic study in arthropod behavior and anatomy. In living subjects we examine: eye, brain, jaws, intestine, swimming legs with gills, its beating heart, and two kinds of eggs, those that hatch directly into female daphnia, and resistant eggs that carry the species through periods of freezing and drying.

31:00