The Fabulous Life of Protists: An Inquiry Project

Teacher's Guide

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Objective: Students will utilize inquiry skills to observe and research Kingdom Protista and develop and test hypotheses based upon their observations, prior knowledge, and web research.

Subject: Life Science

Audience: Middle School (5th - 8th grade)

Time Required: 7 - 9 ½ periods
Observation: 1-1 ½ periods
Web Research: 1 period
Project Development (Hypotheses and Methods): 2 periods
Experimentation: 2-3 periods
Presentation: 1-2 periods or can be put on exhibit

Background

The Kingdom Protista contains both unicellular and multicellular organisms. The majority are microscopic. The kingdom can be separated into three major categories: animal-like (protozoa), plant-like (algae), and fungus-like organisms (slime molds, etc.). They live in aquatic habitats and most eat bacteria, other small organisms, or particles they find in the water. The algae, however, are autotrophs.

This activity allows students to design and carry out an experiment related to the Kingdom Protista. It is intended to encourage as much student-driven learning as possible about this fascinating kingdom. Initially, students will observe several protists under the microscope and attempt to examine and identify them. Then they will spend a day in the computer lab researching some questions about protists. Finally, they will use this information to develop a question and test hypotheses concerning the kingdom.

This project provides a fun and interesting way for students to learn about these tiny creatures. Protists are fascinating to watch under the microscope, and experimentation with them often requires few materials and little time. You will be amazed at the ideas students come up with for their projects!