



A PILOT DVD PROJECT

THE SMALLEST MENACE IS NOT DENNIS

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<p>The Smallest Menace is Not Dennis</p>
<p>Based on the December 1999 HHMI Holiday Lectures: 2000 and Beyond- Confronting the Microbe Menace</p>
<p>AP Biology, Biology, Anatomy and Physiology, Health</p>
<p>Goals: 1. Students will be able to explain the relationship between virus structure and function as it relates to their continuing evolution. 2.To develop an understanding of disease transmission and how personal choices play a role in sexually transmitted diseases.</p>
<p>Standards: National Science Education Standards; National Committee on Science Education Standards and Assessment, National Research Council 1996.</p> <p>The form or shape of an object or system is frequently related to use, operation, or function. Function relies on form. Understanding of form and function applies to different levels of organization. Students should be able to explain function by referring to form and explain form by referring to function. (page 119)</p> <p>The general idea of evolution is that the present arises from materials and forms of the past. Although evolution is most commonly associated with biological theory explaining the process of descent with modification of organisms from common ancestors, evolution also describes changes in the universe. (page 119)</p> <p>The severity of disease symptoms is dependent on many factors, such as human resistance and the virulence of the disease-producing organism. Many diseases can be prevented, controlled, or cured. Some diseases, such as cancer, result from specific body dysfunction and cannot be transmitted. (page 197)</p> <p>Individuals have some responsibility for their own health. Students should engage in personal care—dental hygiene, cleanliness, and exercise—that will maintain and improve health. Understandings include how communicable diseases, such as colds, are transmitted and some of the body's defense mechanisms that prevent or overcome illness. (page 140)</p> <p>The severity of disease symptoms is dependent on many factors, such as human resistance and the virulence of the disease-producing organism. Many diseases can be prevented, controlled, or cured. Some diseases, such as cancer, result from specific body dysfunction and cannot be transmitted. (page 197)</p> <p>Students should understand the risks associated with natural hazards (fires, floods, tornadoes, hurricanes, earthquakes, and volcanic eruptions), with chemical hazards (pollutants in air, water, soil, and food), with biological hazards (pollen, viruses, bacterial, and parasites), social hazards (occupational safety and transportation), and with personal hazards (smoking, dieting, and drinking). (page 169)</p>
<p>Objectives: I. Student will be able to draw and label a typical viral particle. II. Student will be able to describe the relationship between a virus and its' hosts. A) They should able to list requirements for optimum growth and spread of disease. B) Recognize the relationship between host behaviors and viral infections. C) Students will understand that some diseases can be spread through the exchange of body fluids. They will demonstrate this realization by participating in a fluid exchange experiment and listing behaviors that can transfer body fluids.</p>

