



A PILOT DVD PROJECT

CONTAGION: THE SPREAD OF DISEASE

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Lesson Plan Title: Contagion-The Spread of Disease: Contact Tracing
HHMI Lecture (December 1999): 2000 and Beyond-Confronting the Microbe Menace
Courses: AP Biology, Biology, Anatomy and Physiology, World History and Health
Goals: To develop an understanding of disease transmission and epidemiology.
<p>Standards: National Science Education Standards; National Committee on Science Education Standards and Assessment, National Research Council 1996.</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>Disease is a breakdown in structures or functions of an organism. Some diseases are the result of intrinsic failures of the system. Others are the result of damage by infection by other organisms. (Page 157)</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 dysfunctions 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>Emphasis added</p>
Objectives: Students will enhance their understanding of epidemiology by simulating the development of a human epidemic and the historical recreation of Dr. Snow's Cholera maps.