



Lesson Plans

This section includes lesson plans for pre-mission preparation. The articles, readings, or activities will prepare your students with key skills needed for a successful *Pandem-Sim* mission.

Outbreaks, Epidemics, and Pandemics

In this lesson, students find out the difference between an infectious disease outbreak, an epidemic, and a pandemic. Examples of diseases and numbers of deaths for each type of outbreak highlight the major differences among the classifications.

The Epidemiological Process

The systematic approach used by epidemiologists to investigate disease outbreaks is described in this lesson. Students use the epidemiological approach to resolve outbreaks in the *Pandem-Sim* mission.

Disease Transmission Methods

In this lesson, students find out about the varied ways that diseases are transmitted or spread. By knowing modes of transmission scientists can often more quickly identify the source of infection and prevention and control measures can be applied to stop the spread of disease.

Interpreting the SIR Model

Students learn how computer modeling of infectious disease characteristics help contain the spread of disease and evaluate the effectiveness of prevention and control strategies. The SIR (Susceptible-Infected-Recovered) model of mathematical analysis allows graphical interpretation of disease progression.

Simulation Tutorial

This page contains a TouchCast video of *Pandem-Sim* interfaces used by each mission specialist. Students easily learn how to work through the interfaces to solve the outbreak.