

SUGGESTED SKILL

 Visual Representations

2.B

Explain relationships between different characteristics of environmental concepts, processes, or models represented visually:

- In theoretical contexts
- In applied contexts



AVAILABLE RESOURCES

- Classroom Resource > [AP Environmental Science Teacher's Guide](#)

TOPIC 8.15

Pathogens and Infectious Diseases

Required Course Content

ENDURING UNDERSTANDING

EIN-3

Pollutants can have both direct and indirect impacts on the health of organisms, including humans.

LEARNING OBJECTIVE

EIN-3.D

Explain human pathogens and their cycling through the environment.

ESSENTIAL KNOWLEDGE

EIN-3.D.1

Pathogens adapt to take advantage of new opportunities to infect and spread through human populations.

EIN-3.D.2

Specific pathogens can occur in many environments regardless of the appearance of sanitary conditions.

EIN-3.D.3

As equatorial-type climate zones spread north and south in to what are currently subtropical and temperate climate zones, pathogens, infectious diseases, and any associated vectors are spreading into these areas where the disease has not previously been known to occur.

EIN-3.D.4

Poverty-stricken, low-income areas often lack sanitary waste disposal and have contaminated drinking water supplies, leading to havens and opportunities for the spread of infectious diseases.

EIN-3.D.5

Plague is a disease carried by organisms infected with the plague bacteria. It is transferred to humans via the bite of an infected organism or through contact with contaminated fluids or tissues.

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LEARNING OBJECTIVE

EIN-3.D

Explain human pathogens and their cycling through the environment.

ESSENTIAL KNOWLEDGE

EIN-3.D.6

Tuberculosis is a bacterial infection that typically attacks the lungs. It is spread by breathing in the bacteria from the bodily fluids of an infected person.

EIN-3.D.7

Malaria is a parasitic disease caused by bites from infected mosquitoes. It is most often found in sub-Saharan Africa.

EIN-3.D.8

West Nile virus is transmitted to humans via bites from infected mosquitoes.

EIN-3.D.9

Severe acute respiratory syndrome (SARS) is a form of pneumonia. It is transferred by inhaling or touching infected fluids.

EIN-3.D.10

Middle East Respiratory Syndrome (MERS) is a viral respiratory illness that is transferred from animals to humans.

EIN-3.D.11

Zika is a virus caused by bites from infected mosquitoes. It can be transmitted through sexual contact.

EIN-3.D.12

Cholera is a bacterial disease that is contracted from infected water.