
eCurriculum System eMAP

Licensed to: TRUMBULL PUBLIC SCHOOLS

COURSE: Biology 300 CODE:

UNIT: Microbiology MAP LEVEL:

CONTACT: Jenny Ogradnick GRADE: 10

TIME FRAME: 2 weeks

PERFORMANCE STANDARDS

27.3 SCIENCE - LIFE SCIENCE (V,VI,VII)

27.3.6.10.31 Students will describe the differences in the structure of yeasts, bacteria and viruses.

27.3.6.10.32 Students will describe how bacterial and viral infectious diseases are transmitted and explain the role of sanitation, vaccination and antibiotic medications in the prevention and treatment of infectious diseases.

27.3.6.10.33 Students will explain how bacteria and yeasts are used to produce foods for human consumption.

ESS/FOCUS QUESTIONS

Essential Questions:

What essential roles do microorganisms play in life processes and cycles on earth?

How have microorganisms benefited mankind?

How has the development of antibiotics and vaccines affected the transmission of pathogens?

Focus Questions:

How do the growth and dispersal patterns of viruses and bacteria enable the development of methods to prevent and treat infectious diseases?

CONTENT

- 1) Describe the similarities and differences between bacteria and viruses.
- 2) Describe how bacterial and viral infectious diseases are transmitted.
- 3) Explain the roles of sanitation, vaccination and antibiotic medications in the prevention and treatment of infectious diseases.
- 4) Explain how bacteria and yeast are used to produce foods for human consumption.

SKILLS

At the completion of this unit, the students should be able to:

- Identify and describe the events of bacterial reproduction.
- Identify the stages of viral replication
- relate the structures of bacterial cells to thier function.
- describe how microorganisms benefit humans and the ecosystem.
- relate the effects of pathogenic disease to individuals and society.

ASSURED EXPERIENCES

ASSESSMENTS

OPTIONAL ACTIVITIES

RESOURCES

ADDITIONAL NOTES