

Grade 10-12

Distance Learning Module 7: Week of: May 18th – May 22nd

Microbiology Techniques Part 2

Infectious Disease - Modified from [Unit #2 - The Agent](#)

Targeted Goals from Stage 1: Desired Results

Content Knowledge:

Microbiology techniques are used to grow bacteria, identify bacterial species, and treat bacterial infections

Antibiotic resistance is a growing threat that is spurred on by the overuse of antibiotics for treatment and prevention of infections.

Vocabulary:

gram-positive, gram-negative, antibiotic, bacterial culture, aseptic technique, zone of inhibition, resolution, field of view

Skills:

Employ the techniques used in infectious disease laboratories.

Expectation:

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
Monday: Streaking Plates <ul style="list-style-type: none">- View slideshow and watch video from Tufts- Watch teacher generated video simulating streaking plates- Practice with pen and paper	Streaking Plates Slideshow Teacher demo Pen and paper practice	Answer question on Google - What are 3 common mistakes made when streaking bacterial plates?
Tuesday: Antibiotic susceptibility <ul style="list-style-type: none">- View slideshow and watch embedded videos	Antibiotic Susceptibility Slideshow	Submit google doc with at least 5 incorrect procedures

Description of Task (s):	Resources and Materials:	Daily Checks (Return to Google Classroom or snapshots from a cell phone)
<ul style="list-style-type: none"> - Watch video from tufts (on last slide) - What is done incorrectly by the scientist? 		
Wednesday: Antibiotic Susceptibility <ul style="list-style-type: none"> - Practice determining Zone of Inhibition (ZOI) - Determine if bacteria is resistant or susceptible to antibiotic using a reference chart 	Zone of Inhibition Practice	Complete and submit Zone of Inhibition Practice
Thursday: Review Modules 6 and 7 <ul style="list-style-type: none"> - Review Study Guide 	Lab Practical Review	
Friday: Demonstrate understanding of Microbiology Techniques <ul style="list-style-type: none"> - Lab Practical 	Lab Practical	Complete and Submit Lab Practical

Week criteria for success (attach student checklists or rubrics):

Assignment	Criteria for Success
Streaking Plates	Respond to question on Classroom
Antibiotic Susceptibility	Google Document with 5 incorrect procedures Zone of Inhibition Practice is completed and submitted
Lab Practical	Lab Practical is complete and submitted 80% of responses are correct

Supportive resources and tutorials for the week (plans for re-teaching): (all links to resources below are posted in google classroom)

YouTube Video: Microscopes and How to Use a Light Microscope

YouTube video Gram StainingTufts

Tufts.Edu CTSE the Great Disease - Infectious Diseases

Microbiologics Blog - 7 Streak Plate Method Best Practices

Microbiology resources - How to Measure Zones of Inhibition (ZOI)