COMPETENCIES

211.2.11 : Types of Microorganisms

The graduate describes structures and characteristics of microorganisms.

INTRODUCTION

For this task, access the “Bacterial Morphology and Staining Techniques” lab kit experiment found in the web link

below. You will not complete the procedures of the experiment, but you will need to read the materials to complete

this task. Then, you will write a lab report discussing the experiment.

Your lab report should be written in complete sentences and in paragraph form. Your report should include the

following sections:

• introduction

• materials and methods

• results

• discussion

The information required for each section is outlined in the requirements section below.

Note: No microscope will be used in this task.

REQUIREMENTS

Your submission must be your original work. No more than a combined total of 30% of the submission and no more

than a 10% match to any one individual source can be directly quoted or closely paraphrased from sources, even if

cited correctly. An originality report is provided when you submit your task that can be used as a guide.

You must use the rubric to direct the creation of your submission because it provides detailed criteria that will be

used to evaluate your work. Each requirement below may be evaluated by more than one rubric aspect. The rubric

aspect titles may contain hyperlinks to relevant portions of the course.

A. Write a lab report about the “Bacterial Morphology and Staining Techniques” lab kit experiment in which you do

the following:

1. Explain how the differences in cell wall structures of gram-positive and gram-negative bacteria cause them to stain

differently with the Gram stain.

Note: The explanation from part A1 belongs in the introduction section of the lab report.

2. Describe the purpose of each of the four basic steps of Gram staining.

Note: The description from part A2 belongs in the materials and methods section of the lab report.

3. Describe the images provided at the “Bacterial Morphology and Staining Techniques” web link for Staphylococcus

epidermidis and Escherichia coli, including the color and morphology of each organism.

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a. Identify each organism from part A3 as either gram-positive or gram-negative.

Note:These images are located in the "Instructions" section of Module 1, Lesson 2, accessible through the "Bacterial

Morphology and Staining Techniques" web link below.)

Note: The description from part A3 and the identification from part A3a belong in the results section of the lab report.

4. Discuss how the structure of gram-negative bacteria contributes to their ability to cause disease.

Note: The discussion from part A4 belongs in the discussion section of the lab report.

B. Acknowledge sources, using in-text citations and references, for content that is quoted, paraphrased, or

summarized.

C. Demonstrate professional communication in the content and presentation of your submission.

File Restrictions

File name may contain only letters, numbers, spaces, and these symbols: ! - \_ . \* ' ( )

File size limit: 200 MB

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