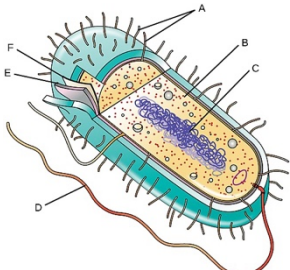


LAB II – PROKARYOTES AND PROTISTS LAB WORKSHEET

Instructions

Use your observation of the material from the different stations and the lab manual to find answers to the questions. Draw what you see and make sure to label relevant structures and observations.

STATION	QUESTIONS	ANSWERS	DRAWING
IA GRAM-STAINED BACTERIA	a) Shape of the cells? b) Color of cells? c) Gram + or Gram -?		
IB GRAM-STAINED BACTERIA	a) Shape of the cells? b) Color of cells? c) Gram + or Gram -?		
IC GRAM-STAINED BACTERIA	a) Shape of the cells? b) Color of cells? c) Gram + or Gram -?		
II CYANOBACTERIA (WET MOUNT = FRESH)	a) What does the color of these cells indicate? b) How do cyanobacteria feed? c) Why are cyanobacteria important organisms?		
III INOCULATED PETRI DISH (DAY 7)	a) What are the different “dots” called? b) Are all the “dots” the same? c) How is their appearance relevant to a bacteriologist?		
GENERAL QUESTIONS RELATIVE TO STATIONS I-III		ANSWERS	
<ol style="list-style-type: none"> Do any of these organisms have a nucleus? DNA? How are such organisms called (relative to their nucleus)? What are the 3 main shapes of bacteria? Why is the Gram stain used? What information does it provide? Do all bacteria have peptidoglycan in their cell wall? What is binary fission? How is it similar to/different from mitosis? Give a definition for <i>Pathogenic</i> and <i>Saprotrophic</i> Identify structures A-F 			
<p>Prokaryotic cell schematic. CNX Openstax CC-BY-4.0</p>			

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STATION	QUESTIONS	ANSWERS	DRAWING
IV DIATOMS	a) Shape of the cells? b) Are diatoms unicellular or multicellular? c) Mode of nutrition? d) Are diatoms algae, protozoa or fungus-like protists?		
V MIXED ALGAE (WET MOUNT = FRESH)	a) What does the color of these cells indicate? b) Are the organisms observed unicellular or multicellular? c) How do algae feed? d) How are algae important in an ecosystem?		
VI PARAMECIUM (STAINED SLIDE)	a) Are paramecia unicellular or multicellular? b) What structures allow them to move around? c) How do they feed?		
VII AMOEBEA (STAINED SLIDE)	a) Are amoebas unicellular or multicellular? b) What structures allow them to move around? c) How do they feed?		
VIII EUGLENA (WET MOUNT OR STAINED SLIDE)	a) Are euglenas unicellular or multicellular? b) Means of locomotion? c) How do they feed?		
GENERAL QUESTIONS RELATIVE TO STATIONS IV -VIII		ANSWERS	
8. Do protists have a nucleus? DNA? How are such organisms called (relative to their nucleus)? 9. Are protists uni- or multicellular? 10. How many kingdoms make the protists? 11. What is a simple way of classifying protists? 12. Define symbiosis			

CONCLUSION: COMPARING PROKARYOTES AND PROTISTS	
List key differences between prokaryotes and protists?	
List similarities between prokaryotes and protists?	