

Monday December 1, 2008

Objective: To identify characteristics of bacteria

CW: Notes/Discussion about bacteria

HW: Star Sheet #4 – Due Friday

Study for Chapter 3 Test – Tuesday December 9<sup>th</sup>

Chapter Vocabulary Term	Meaning/Definition
Flagella	Whip-like tail on some bacteria Helps with movement
Fission	Process by which bacteria reproduce 2 identical cells are produced Asexual Reproduction
Aerobe	Organism that uses oxygen for respiration
Anaerobe	Organism adapted to live without oxygen

Other information	Details
What are bacteria?	Smallest cells One celled organisms Moneran = kingdom
5 kingdoms of organisms	Animals      Monerans Plants      Archaeobacteria Protists Fungi
Size of bacteria	Micron = unit = $\mu\text{m}$ 1 micron = 0.001 mm Bacteria range: 0.2 $\mu\text{m}$ – 2 $\mu\text{m}$ - width 2 $\mu\text{m}$ – 8 $\mu\text{m}$ - length
Shape of bacteria	Sphere – coccus Rods – bacillus Spiral - spirillus
Structure of bacterial cells	Cytoplasm Cell wall and cell membrane <b>Prokaryotic</b> – no membrane-bound organelles ( nucleus, mitochondria) Genetic material in 1 circular chromosome Bacteria do have ribosomes
Special Features	Some have protective capsule Hairlike projections help them stick to surfaces Some have outer “slime layer” coating Some have flagella to help them move
Reproduction of bacteria	Fission – 2 identical cells produced. Identical to original cell

Reproduction of bacteria (continued)	Asexual reproduction Bacteria can exchange DNA before dividing Can develop new characteristics Survival advantage
Food and Energy	<ul style="list-style-type: none"><li>- Some bacteria make own food Have chlorophyll</li><li>- Some use energy from chemical reactions</li><li>- Most bacteria are consumers</li><li>- Some are decomposers</li><li>- Some are parasites</li><li>- Aerobes use oxygen for respiration</li><li>- Anaerobes can live without oxygen</li></ul>