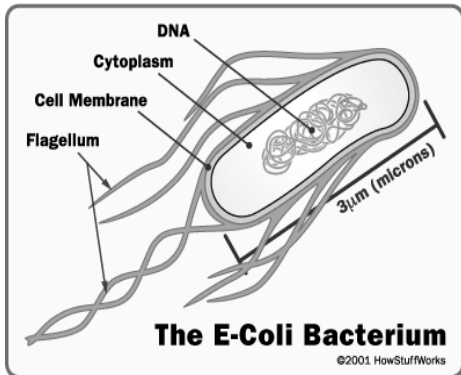


Kingdom Monera

I. Characteristics of Monera

- A. Prokaryotes
- B. Simple one celled organisms
- C. No membrane bound organelles
- D. Nuclear material consists of a single circular chromosome
- E. Have cell walls
- F. Some autotrophic
 - 1. Some have chlorophyll for photosynthesis
 - 2. Some do chemosynthesis
 - 3. Some do thermosynthesis



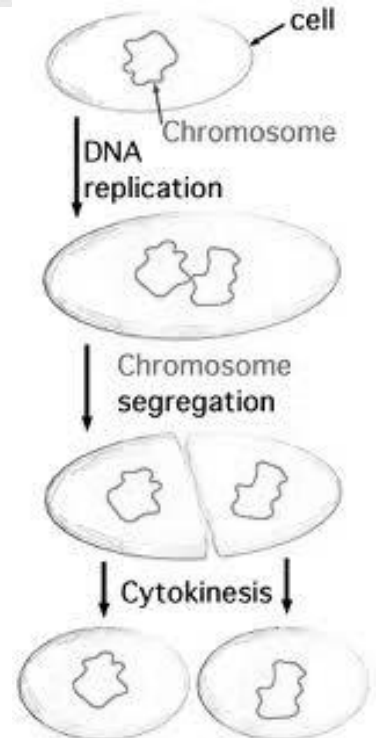
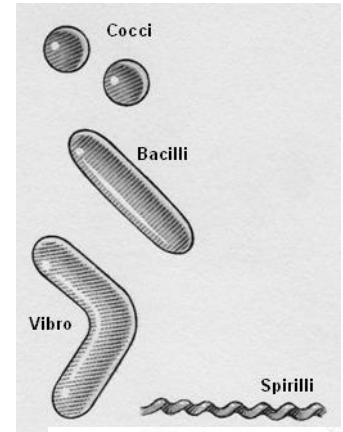
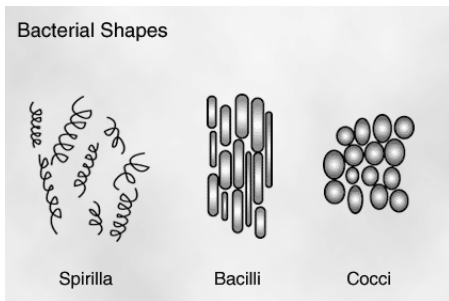
II. Types of moneran

A. Bacteria

- 1. Shapes
 - a. Round *cocci*
 - b. Rod *bacilli*
 - c. Spiral *spirilla*
- 2. Movement
 - a. Some move by a flagella
- 3. Reproduction
 - a. Fission
 - b. Conjugation
- 4. Some are aerobes
- 5. Some are anaerobes
 - a. To these oxygen can be deadly

B. There Are Two Main Groups of Bacteria

- 1. Eubacteria
 - a. Grouped by cell shape
 - b. Producers
 - 1) Do photosynthesis

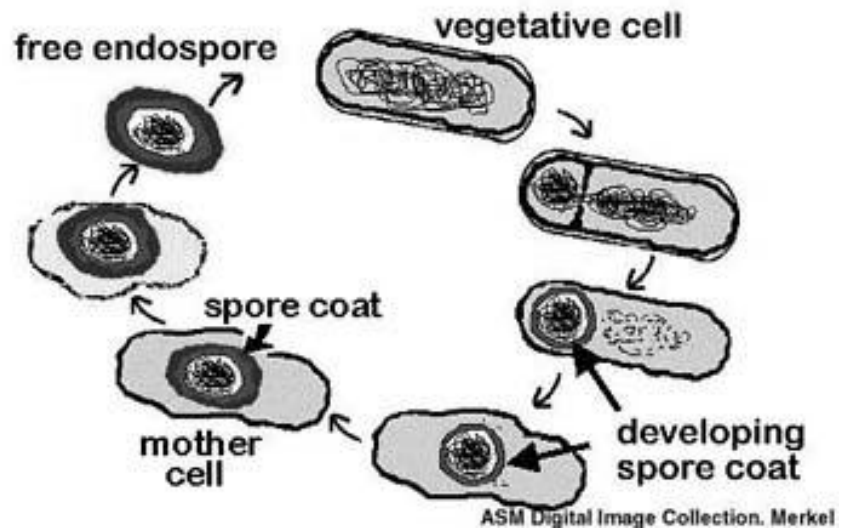


- i. Important part of ecosystem in many lakes and ponds

- 2) Blue-green Algae (cyanobacteria) Consumers

- 2. Archae Bacteria
 - a. Salt-, Heat-, and Acid-lovers
 - b. Methane Producers (Produce Methane gas)
 - 1) Live in swamps and sewer systems
 - 2) Live in intestines of animals
- III. Monerans and your life
 - A. Beneficial monerans
 - 1. Flavoring
 - a. Cheese & Yogurt
 - b. Sauerkraut
 - c. Vinegar
 - 2. Uses of bacteria
 - a. Saprophyte
 - b. Nitrogen fixing in plants
 - c. Medicines
 - d. Cleaners
 - e. Adhesives
 - f. Clean oil spills
 - g. Keep sewers working correctly
 - h. Help break down food in the intestine and keep you from getting other infections
 - B. Harmful Monerans
 - 1. Pathogen (disease causer)
 - a. Strep throat
 - b. Tuberculosis
 - c. Anthrax
 - d. Diptheria
 - e. Tetanus
 - f. Whooping cough
 - g. Bubonic Plague
 - 2. Some produce poisonous wastes
 - a. Food poisoning
 - 1) Botulism
 - 2) Salmonella
 - 3) Ecoli

- IV. Bacteria can survive harsh conditions by producing a endospore, a thick walled structure that can keep them alive for more than 50 years
- V. Bacterial Survival
 - A. Bacteria can survive harsh conditions by producing a endospore, a thick walled structure that can keep them alive for more than 50 years
 - B. Killing bacteria
 - C. Pasteurization
 - 1. Heating food or drink to a high temperature for a period of time
 - D. Autoclave
 - E. What is an endospore?



- F. Bacteria and antibiotic resistance
 - 1. Bacteria can become antibiotic resistant
 - 2. When you don't take all your antibiotic
 - 3. Some bacteria can survive that are antibiotic resistant
 - 4. When people go to the doctor for every little cold and the doctor gives them an antibiotic.
 - 5. When the antibiotic is given in to small of dosage
- H. Killing bacteria
- I. Pasteurization
 - 1. Heating food or drink to a high temperature for a period of time
 - 2. Autoclave