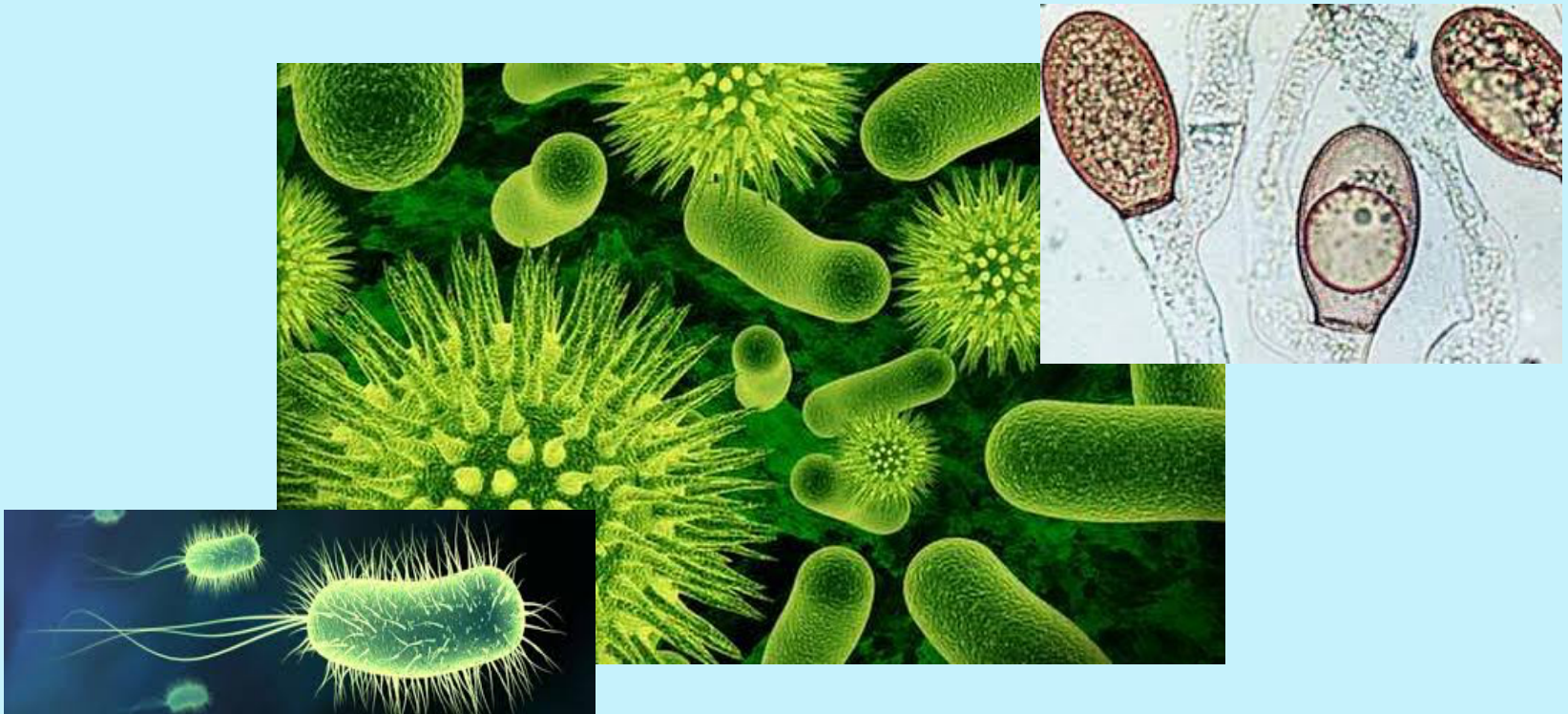


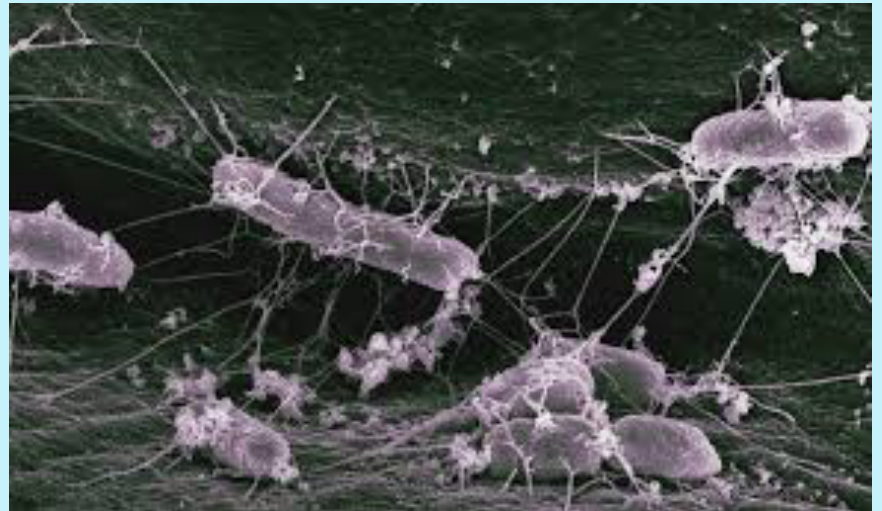
Unit 1: Cells and Systems

Section 4: Microbes



Microbes

- Microbes or microorganisms are organisms that require **magnification** to be seen (smaller than **1 mm**).
- Microbes exist **everywhere!**



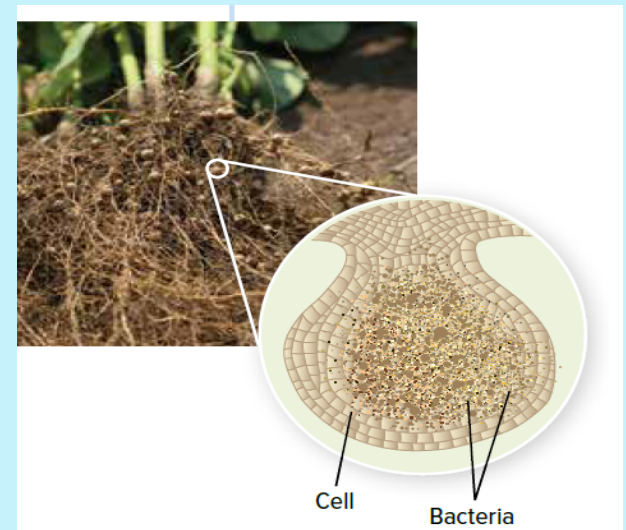
- About **700** species of bacteria live in your mouth
 - Some cause tooth **decay**
 - Some bacteria keep your mouth healthy by **outcompeting** disease-causing bacteria



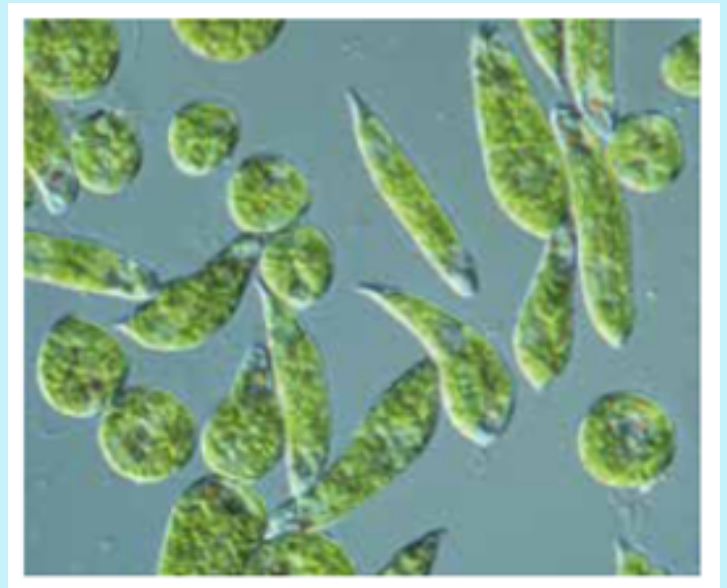


- There are microbes in soil to help break down or **decompose** dead materials such as rotting wood.


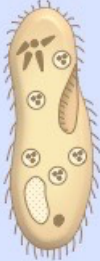




- Bacteria also help plants grow by bringing **nitrogen** into the soil.



- Microbes are also found in fresh water.
- **Protists** are small single-celled organisms found in fresh water such as ponds.



- There are microbes that are beneficial to humans and others that cause disease.
- Microbes that cause people to get sick are called **pathogens**.

CELLULAR (LIVING)				ACELLULAR (NON-LIVING)	
					
Parasites (e.g. <i>helminthes</i>) ⇒ Tapeworm	Protozoa (e.g. <i>plasmodia</i>) ⇒ Malaria	Fungi (e.g. <i>tinea</i>) ⇒ Athlete's foot	Prokaryote (i.e. <i>bacteria</i>) ⇒ Leprosy	Virus (e.g. <i>HIV</i>) ⇒ AIDS	Prion ⇒ CJD

Read pg. 42-43 of your text. Give examples of positive and negative interactions between humans and microbes.

Positive Interaction	Negative Interaction