Name Period Date

Unit 1	Handout _____	*Lesson 7: Introducing Bacteria*

Purpose:	To learn background information about bacteria.
Guiding Questions:	**-** What are bacteria? **-** How are bacteria helpful and harmful to us?

What are bacteria?

All bacteria are _____ _____. This is the opposite of a eukaryote (like us, protists, plants, and fungi). Prokaryotes do not have a _____ nor do they have _____ in their cell. Therefore, scientists say bacteria are extremely simple organisms. They are also the _____ type of life on our plant.

Where do bacteria live?

Bacteria are found nearly everywhere! They can be found in _____, inside _____, living in _____ and _____, and even in places that are extremely _____ or _____ to other forms of life.

How are bacteria classified?

Bacteria are classified into two domains: _____ and _____. They have several differences between them but they still have several things in common. For example, both groups of bacteria are _____, have three _____ _____, have a _____, and have _____ in their cell. The table below shows how they are different.

Bacteria	Archaebacteria
Oldest known life forms. Found in _____ locations. _____ cell wall.	Found in common locations and _____ locations _____ cell wall.

What are some examples of Bacteria and Archaebacteria?

The table below highlights some common types of bacteria.

Examples of Bacteria	Examples of Archaebacteria
_____: use photosynthesis to produce food and oxygen (we love these bacteria!) _____: break down organic material; recycle matter. _____: Harm hosts (ex: *E. coli*, S. *pyogenes*).	_____: live in the guts of animals and in swampy areas. _____: live in salty areas _____: live in extremely hot or cold locations. _____: lives underground and gets energy by breaking down chemicals in rocks; helps make soil.

What do bacteria look like?

Bacteria have one of three basic shapes.

Cocci	Bacilli	Spirila

Bacteria can be arranged in certain ways.

	Definition	Drawing
Diplo- (Bacilli and cocci bacteria only)		
Strepto- * (Bacilli and cocci bacteria only)		
Tetra- (Cocci bacteria only)		
Staphylo- (Cocci bacteria only)		

Spirilla bacteria only exist as single cells. However, they take on one of three forms of a spiral shape. Vibrio is a comma-shaped rod, spirillum is a thick, rigid spiral, and spirochete is a thin, flexible spiral.
** Some bacteria form a special chain called a **filament**. Oscillatoria is an example of this.*