

# Test on Friday 3-2-18

## Cells Study Guide

Cells are the smallest unit of a living thing

The tool that allows people to peer into the world of cells is a microscope

### Parts of a Cell

<b>Name</b>	<b>Definition</b>	<b>Found in Plant Cells?</b>	<b>Found in Animal Cells?</b>
Nucleus	<i>the control center of the cell</i>	<b>yes</b>	<b>yes</b>
Cell Membrane	<i>the thin covering that holds all cells together. The cell membrane controls what goes into and out of the cell</i>	<b>yes</b>	<b>yes</b>
Cell Wall	<i>The rigid layer that supports and protects a plant cell</i>	<b>yes</b>	<b>NO</b>
Cytoplasm	<i>The jellylike substance that holds the parts of a cell in place</i>	<b>yes</b>	<b>yes</b>
Chloroplasts	<i>The organelles that <b>make</b> food in a <b>plant</b> cell</i>	<b>yes</b>	<b>NO</b>

### How are plant cells and animal cells similar and different?

Plant and animal cells have many organelles in common, such as a nucleus, cytoplasm, cell membrane, mitochondrion, and vacuoles (although plants usually have larger vacuoles than animals). Plant cells have two organelles that animal cells do not have. They have a rigid wall on the outside of the cell called a cell wall. They also have chloroplasts that are used to make food for the plant.

Name \_\_\_\_\_

## Microorganisms

“Micro” means extremely small      “Organism” means living thing

So, **microorganism** means extremely small living thing

Microorganisms can be both **helpful** and **harmful**

Microorganism	☺ <b>Helpful</b> ☺	☹ <b>Harmful</b> ☹
<b>bacteria</b>	<p>Bacteria helps us digest food</p> <p>Bacteria can turn milk into yogurt and cheese</p>	<p>Staph, strep, salmonella, and E. coli bacteria can cause infections, such as strep throat and food poisoning.</p>
<b>fungi</b>	<p>Fungi helps decompose things that have died</p> <p>Yeast is a fungus that makes bread rise</p> <p>Penicillin is a medicine made by a mold (mold is a fungus)</p>	<p>Harmful fungi can kill crops, rot wood, spoil food, and cause skin diseases like athlete's foot</p>
<b>protists</b>	<p>Most protists are not helpful or harmful, but some protists can help break down soil</p>	<p>Protists can cause diseases such as malaria</p> <p>Red algae, a protist, can kill fish</p>
<b>viruses</b>	no helpful viruses	<p>Viruses cause many illnesses, such as colds, flu, chicken pox,</p>
<b>other</b>	<p>Phytoplankton - single cell organisms from the plant kingdom that create most of our oxygen and provide food for fish</p>	

How can microorganisms be helpful and harmful?  
-see chart