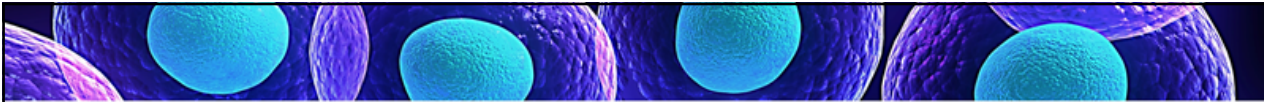


Imagine a town in which everyone was a doctor. Every person in the town would be able to help you if you were sick, if someone had a heart attack, there would undoubtedly be someone there to help right away. On top of that, everyone would make really good money!

However...

What would happen if your car broke down?
Where would you buy your groceries?
How much garbage would be piled up on your front lawn, waiting for pickup?

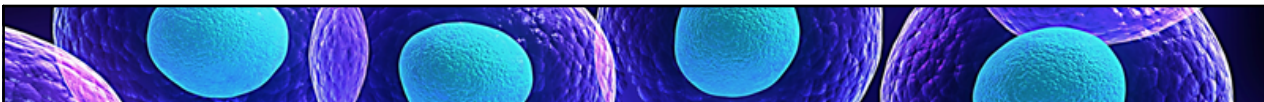
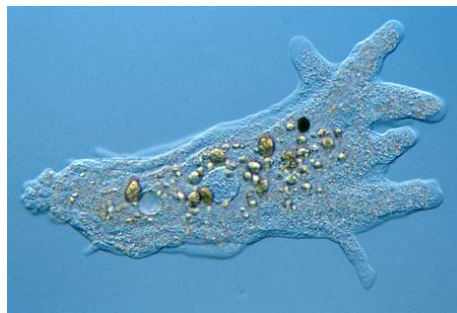
In a community, it is very important that people be trained for a variety of careers, and that many different jobs are filled. In order for the community to function, there has to be a variety of people.



Unicellular vs Multicellular

Just like a community, an organism has many jobs that need filled. If that organism is unicellular, then each of those jobs has to be performed by the same cell. If it is a multicellular organism, then the jobs are most likely performed by different types of cells.

Consider the methods used by a human to perform the basic functions of life. Now, keeping in mind that a unicellular organism is also a living thing, it must also perform these same functions. How might the two compare?



Unicellular vs Multicellular

Function	Human	Amoeba
Obtaining Food	Mouth to eat Digestive system to break it down Blood to transport	Cell Membrane stretches and surrounds food
Obtaining Water	Mouth to drink Intestines to absorb Blood to transport	Osmosis
Obtaining Oxygen	Lungs take oxygen out of the air Blood to transport	Diffusion
Movement	Muscle cells contract and expand to move body parts	Cell Membrane extends and contracts

Specialized Cells

Today we will look at specialized cells, cells in multicellular organisms that perform a specific job.

On the next slide you will find a list of specialized cells. Each of you will sign up for one of these types. Then, with the others who also sign up, you will research and document information about that type of cell. All of this information will be recorded in a shared cloud document, which will result in all of you having a note about each of these types of cells.

When recording your information, please use the template provided, so that the information is easily understood.

Specialized Cells

Red Blood Cells	_____	_____	
White Blood Cells	_____	_____	
Nerve Cells	_____	_____	
Fat Cells	_____	_____	
Muscle Cells	_____	_____	_____
Bone Cells	_____	_____	
Ciliated Epithelial Cells	_____	_____	_____
Root Hair Cell	_____	_____	
Palisade Cells	_____	_____	_____
Xylem Cells	_____	_____	_____

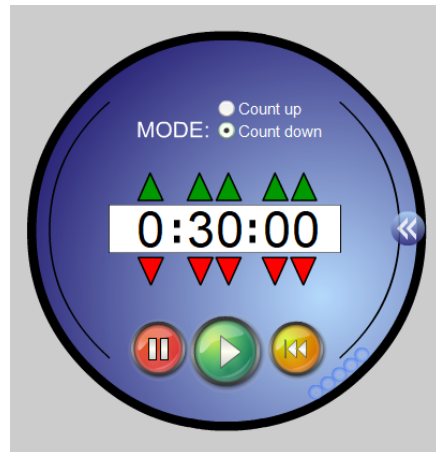
Specialized Cells

In the shared cloud document, titled "Specialized Cells - 8#," you will find the following:

- > A title page has been created for the document
- > An example page, Skin Cells, has been completed for your reference
- > A templated page has been created for each of the different cell types

Please only alter your page, do not edit anyone else's page unless they have specifically asked for assistance proof reading their work.

You may use the remaining time in class to work on your research. Be sure to reference the example for formatting.



Specialized Cells

At this point you should have your information complete. If not, please discuss with your group members your plan to get it done.

