

Please write your name in one of the cells.

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If you brought your phone or tablet, please have it on your desk. If not, please get a laptop.



Today we will start our unit on cells. Before we discuss anything, we will start by looking at what you already know... or what you think you know!

If you have brought a wi-fi enabled device to class, please bring it out now. If not, please get a laptop and login.

We will use Kahoot to do a quick quiz about cells. Be sure you can clearly see the board.

Once you are online, please go to https://kahoot.it/ and enter the PIN that will be seen on the Smartboard.



Start

Cells

Although scientists have studied living things for centuries, it was not until the late 1600s, and the invention of the microscope, that humans were able to see cells, the building blocks of all living things. Today scientist still study cells, and are still attempting to learn more about life through the function of cells and their parts.

So, why is it important to learn about cells? At the start of class you were assigned a number, your topic, based on that number, is:

- 1. Cancer
- 2. Alzheimer's Disease
- 3. Malaria

- 4. Cystic Fibrosis 5. Sickle-cell Disease
- 6. Diabetes

Individually, use the next three minutes to perform an internet search for your assigned topic. Scan the information, looking for references to cells. You will be discussing your information.





Re-arrange to sit with your number group, quietly discuss what you found.

In your Google Classroom you will find an assignment titled "Cells Introduction. Please, open the file, add a <u>single slide</u>, and record the key information, relating to cells, that your group found. If you have time, edit your slide, looking at aesthetic features.

Information first, then formatting.





Cells

How is it that all of these topics are similar?

Can you think of any other topics that would involve the need to knowledge of cells?



Cells

In this unit, we will cover the following information.

- Characteristics of Living Things
- Cell Theory
- Components of a Cell Organelles, and their Functions
- Microscope Use
- Plant vs Animal Cells
- How Cells Get Energy
- Cell Processes Diffusion, Osmosis, Mitosis
- Needs of Single Celled and Multicellular Organisms
- Diseases, Specifically Cancer
- Tissues, Organs, Organ Systems
- How Technology Helps us Understand Cells
- The Pros and Cons of Manipulating Cells

We will spend several periods with microscopes, looking at a variety of different cell types. We will prepare a report to show our findings and our understanding of cells. The unit will conclude with a test, which will culminate the knowledge gained throughout the unit.

Safety

Recall that you have a safety test next class. Your test will cover the following concepts:

- You will need to be familiar with the parts of the scientific method (lesson 2)
- You will need to recognize WHMIS and HHPS symbols
- You will need to be mindful of unsafe actions in the science lab as well as safety concerns with lab equipment.

You may use any remaining time to study for your safety test.



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