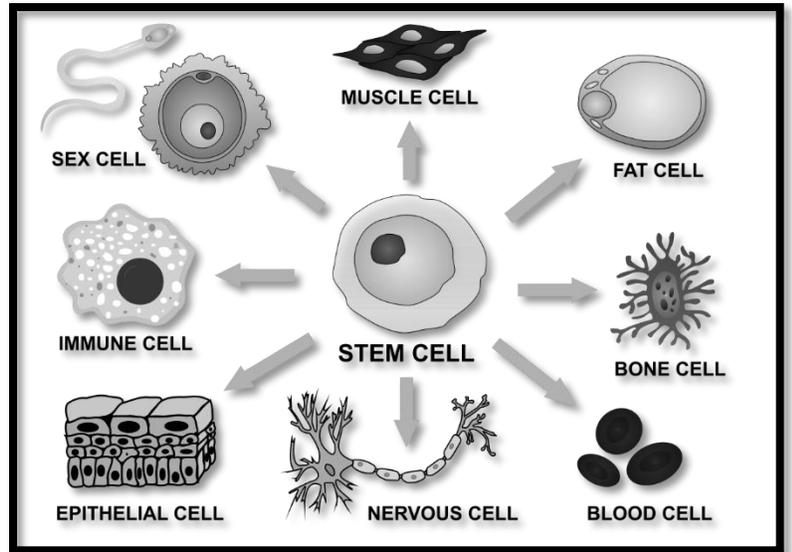


# HUMAN CELL DIFFERENTIATION INFOGRAPHIC

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Block: \_\_\_\_\_

The human body is comprised of millions of cells. **Cellular differentiation** is the process where a cell changes from one cell type to another. Typically, the cell changes to a more *specialized* type. Differentiation occurs numerous times during the development of a multicellular organism as it changes from a simple **zygote** to a complex system of tissues and cell types.

Your goal is to create a individually **drawn or color printed** infographic of a cell and to become a class expert on your cell type. Different types of cells will be randomly selected, and will be on a first come, first serve basis.



## Types of Cells

- |                    |                    |                      |                     |
|--------------------|--------------------|----------------------|---------------------|
| 1. Osteoblast      | 6. Simple Columnar | 13. Red Blood Cell   | 20. Neutrophil      |
| 2. Chondrocyte     | 7. Skeletal Muscle | 14. White Blood Cell | 21. B-Cell          |
| 3. Astrocyte       | 8. Smooth Muscle   | 15. Spermatozoa      | 22. Hepatic Cell    |
| 4. Ciliated        | 9. Cardiac Muscle  | 16. Ovum             | 23. Photoreceptor   |
| Pseudostratified   | 10. Goblet Cell    | 17. T-Cell           | 24. Neurons         |
| columnar           | 11. Parietal cell  | 18. Mast Cell        | 25. Epithelial Cell |
| 5. Simple cuboidal | 12. Cancer Cell    | 19. Adipose          | 26. Pancreatic Cell |

This project is Due: \_\_\_\_\_ My Cell Type is: \_\_\_\_\_

### ITEMS TO INCLUDE ON YOUR INFOGRAPHIC:

**\*Anywhere you can add pictures to help answer the questions below would be helpful\***

1. Where is the cell **located** in the human body?
2. What organ(s) function uses these cells?
3. **Organelle information:** What organelles are found in this type of cell? What do those organelles do. Are organelles missing, higher/lower in number in this cell?
4. Briefly compare and contrast the differences and similarities of your cell to a **generalized animal cell**.

5. Briefly compare and contrast the differences and similarities of your cell to a **generalized plant cell**.
6. Briefly compare and contrast the differences and similarities of your cell to a **generalized prokaryotic cell**.
7. Does this cell work with any other types of cells?
8. **Picture a scientist** that has done research and made medical advancements with this type of cell.
9. Why is this cell important for a human? **What is its main role?** What would happen if it malfunctioned?
10. What is the normal **life span** of this cell type.
11. List **5 sources** in **APA** format. **NO WIKIPEDIA**

	<b>Not Yet (0.1)</b>	<b>Developing Skills (2)</b>	<b>Approaching Mastery (3)</b>	<b>Mastery of Standard (4)</b>	<b>Advanced Mastery (5)</b>
<b>Design</b> (summative)	Infographic shows no research in planning	Infographic shows evidence or research in planning but is not finished	Infographic is thought out and implemented, missing more than one component.	Infographic is well thought out and implemented correctly. Missing only 1 component	Infographic is completely finished, well thought out, easily understood.
<b>Content</b> (summative)	Content is incorrect	Content has some details about the cell type but contains errors	Content has some details about the cell type and may only contain a few errors	Content about the cell type is detailed, correct, and on level	Content about the cell type is correct, goes above and beyond with detail (all parts are included)
<b>Creativity</b> (summative)	Did you try to give it a go?	Infographic is not creative, too many components were copied straight from the internet	Infographic was somewhat creative, some components were copied straight from the internet	Infographic was somewhat creative, steps were taken to put own ideas into it, info does not look copied straight from the internet.	Infographic is creative, steps were taken to put own ideas into it, information does not look copied straight from the internet

	<b>Not Yet (0.1)</b>	<b>Developing Skills (2)</b>	<b>Approaching Mastery (3)</b>	<b>Mastery of Standard (4)</b>	<b>Advanced Mastery (5)</b>
<b>On-time</b> (employability)	Turned in after the due date	Turned in on or after the due date	Turned in on the due date	Turned in on or before the due date	Turned in on or before the due date
<b>Individual Work</b> (employability)	Did not use time wisely and used other classmates work or examples, tries to do infographic last minute	Did not use time wisely, did not do appropriate amount of research, not a lot of thought process, showed minimal amount of effort.	Individual work met mastery, did not put in extra effort, model shows evidence that student understands the cell type but can not elaborate on the process of differentiation	Worked well individually. Research and effort was maximized, the process of cell differentiation and cell type was illustrated and explained thoroughly. Infographic proved to be out of the box.	Worked well individually, Research and effort was maximized in time given, Cell type and differentiation was explained and illustrated above and beyond expectations. Infographic was clear and concise.