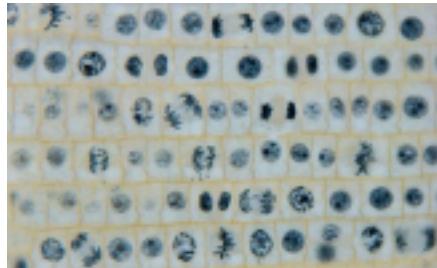


## **Lesson 5: Continuing Mitosis...**

(In-class Monday & Independent Tuesday)

### 1) Materials

- Onion root cell images with different stages of mitosis



<https://bcphysics180.files.wordpress.com/2015/01/slides.jpg>

- Henrietta Lacks article
- Jamboard
- Zoom for breakout rooms

### 2) Standards

#### Michigan Department of Education - Biology Standards

- B4.3a Compare and contrast the processes of cell division (mitosis and meiosis), particularly as those processes relate to production of new cells and to passing on genetic information between generations.
- B1.2k Analyze how science and society interact from a historical, political, economic, or social perspectives

#### Common Core State Standards

- SL.11-12.5 Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentation to enhance understanding of findings, reasoning, and evidence to add interesting.

#### Next Generation Science Standards

- HS-LS1-4. Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms.

### 3) Lesson Objectives

- I can distinguish between the events that take place in each step of mitosis.
- I can differentiate between eukaryotic and prokaryotic cell division

### 4) Activities

#### Welcome (15 min):

- Students will be welcomed into class and have an agenda of the day ready to view.  
Students will begin by identifying the stage of mitosis present in microscopic images of an onion root cell.

### Prokaryotic Cell Division (10 mins)

- In order to prepare for the next class where we will discuss the differences between prokaryotic and eukaryotic cell division, we will review what we have learned about the structural differences between prokaryotic and eukaryotic cells.

### Henrietta Lacks article (20 mins)

- We will read an article about Henrietta Lacks and how her cells have made such a huge contribution to medical research and advancements. We will also relate this to social/ethical issues related to the use of her cells. The article highlights issues related to the black lives matter movement as well as the creation of the covid vaccine. It brings together politics, ethics and science. Students will share their thoughts about the article on a Jamboard and discuss them as a class.

### Group work: Jamboard/Zoom activity and Mitosis Flapbook (30 mins)

- Students will be put into breakout groups through zoom. They will each be assigned a stage of mitosis and be responsible for creating a chart on their group's Jamboard page. Each student is preassigned to their group and a stage of mitosis.

### Closure/Assessments (5 mins)

- Students will be asked to complete their EdPuzzle if they haven't already.
- Students will be assigned an extra credit Mitosis Drag and Drop Google Docs game activity.
- Students will be reminded to complete their Mitosis Mixed Media projects before next class!