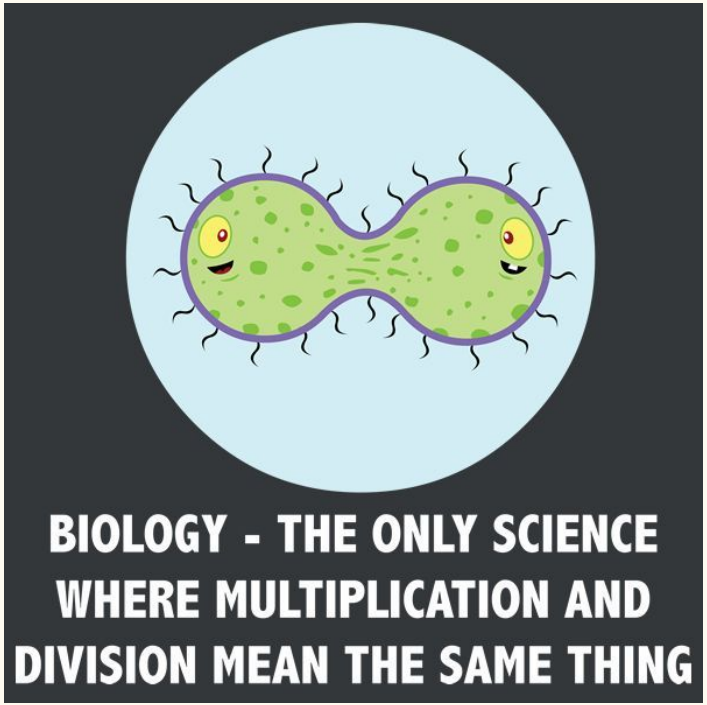
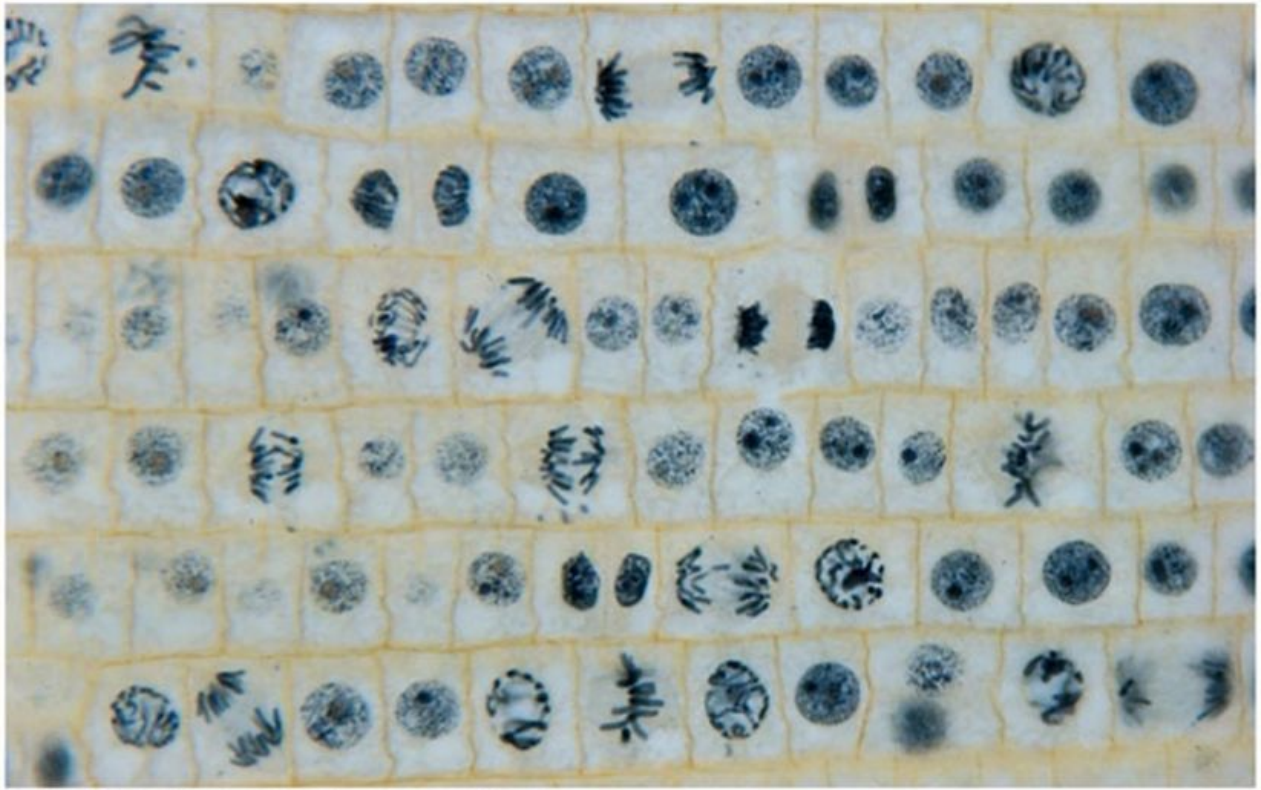
# Agenda (Th/Fri)

- How is cell division different in eukaryotic and prokaryotic cells?
- Henrietta Lacks article annotated and questions together on Jamboard https://www.nature.com/articles/d41586-020-02494-z
- Group for mitosis chart on Jamboard (meet on Zoom)




https://www.pinterest.com/pin/280067670552813798/

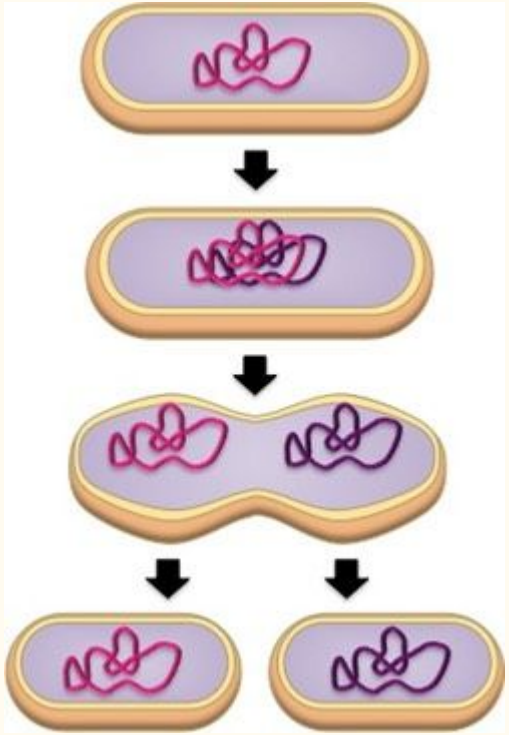
# Onion Cells



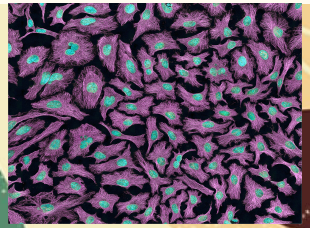
# Prokaryotic Cell Division

Binary fission is how cells divide in prokaryotic cells:

- Circular DNA is copied in response to a replication signal
- The two DNA loops attach to the membrane
- The membrane elongates and pinches off (cytokinesis), forming two cells



# Henrietta Lacks (1st hour)



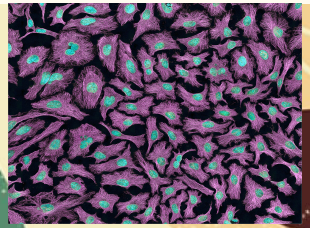
https://www.tebu-bio.com/blog/wp-content/uploads/2017/11/HeLa-Cells-Multiphoton-fluorescence-image.jpg

## Jamboard discussion:


## Takeaway points:

- Henrietta Lacks is a Black woman who was diagnosed with a malignant tumor on her cervix in 1951
- Dr. Grey took a biopsy cell sample of the tumor cells and found that whereas other, normal cancer cells would quickly die, Lacks' cells would double every 20-24 hours
- Her cells have been very beneficial in studying the effects of toxins, studying the human genome, and developing vaccines
- Because this incident occurred in the 1950's, the ethical laws at that time were not very strict, and her cells were being used without her consent.

# Henrietta Lacks (4th hour)



https://www.tebu-bio.com/blog/wp-content/uploads/2017/11/HeLa-Cells-Multiphoton-fluorescence-image.jpg

Jamboard discussion:


Takeaway points:

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- Dr. Grey took a biopsy cell sample of the tumor cells and found that whereas other, normal cancer cells would quickly die, Lacks' cells would double every 20-24 hours
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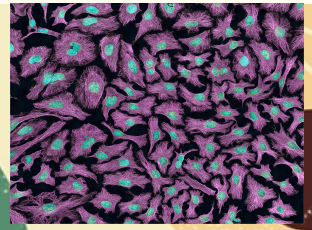
# Henrietta Lacks (3rd hour)



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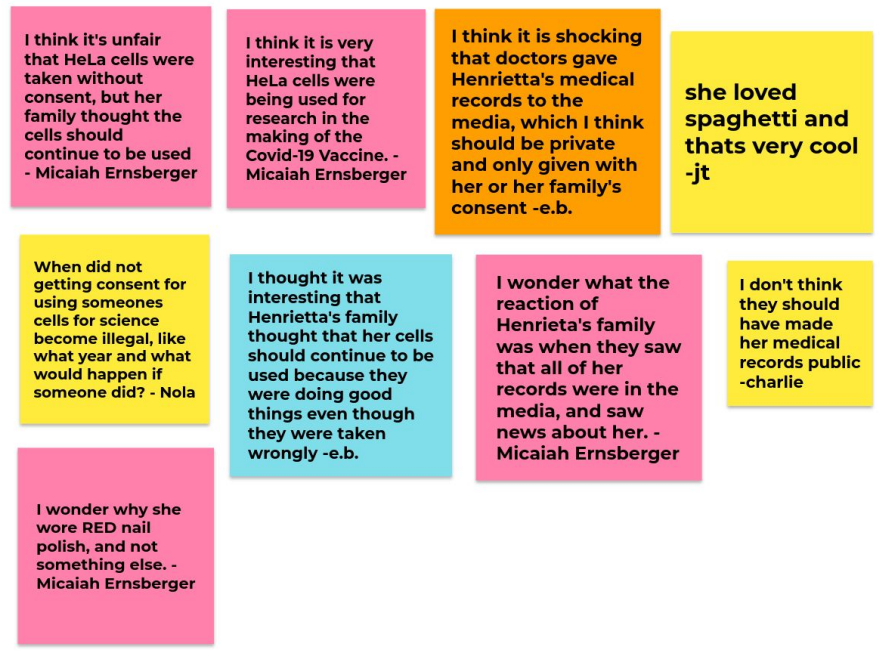
Jamboard discussion:

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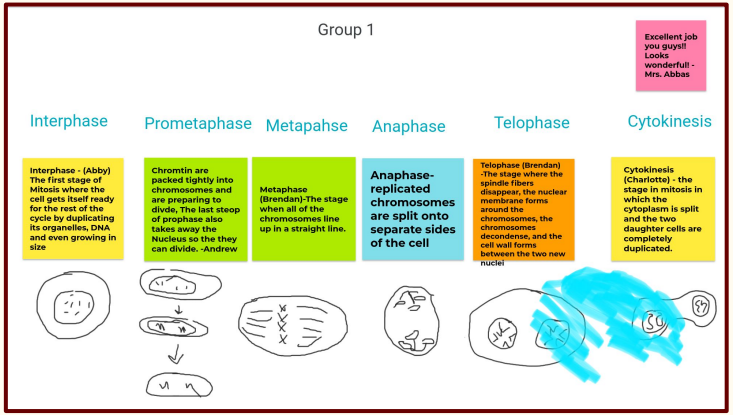
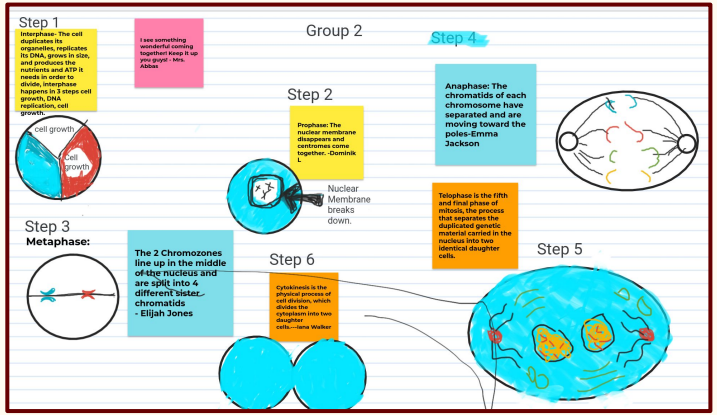
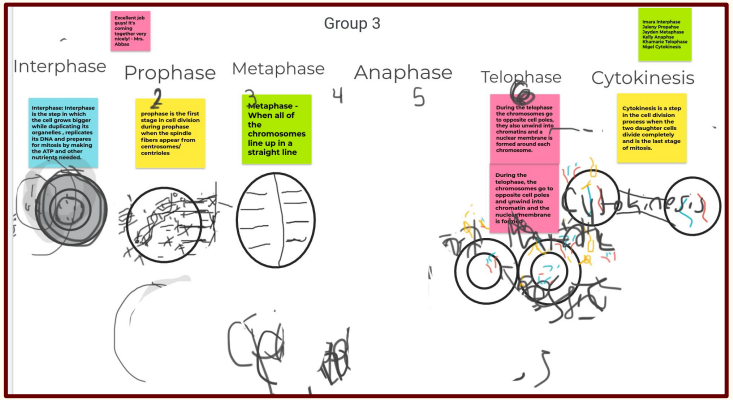
- Because this incident occurred in the 1950's, the ethical laws at that time were not very strict, and her cells were being used without her consent.

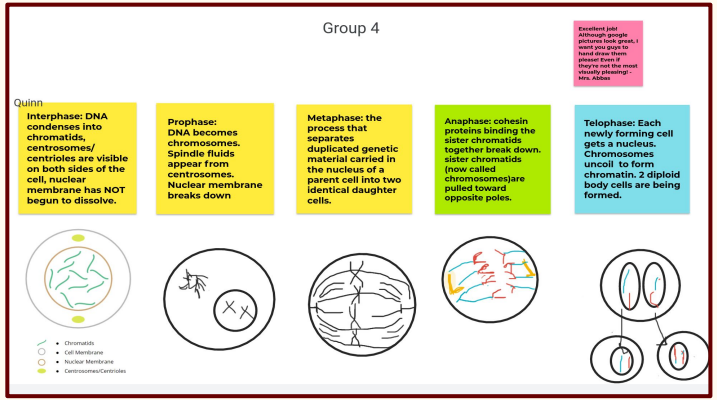
# Cell Cycle Group Activity (1st hour)

Each group member is assigned a stage from the cell cycle. Draw out your stage on Jamboard and we will view all the charts together at the end as a class. Each group has 6 students.




Group 1:
Abby Interphase
Andrew Prophase
Benjamin Metaphase
Braylon Anaphase
Brendan Telophase
Charlotte Cytokinesis

Group 2:
Dalik Interphase
Dominik Prophase
Elijah Metaphase
Emma Anaphase
Harper Telophase
Iana Cytokinesis

Group 3
Imara Interphse
Jaleny Propahse
Jayden Metaphase
Kelly Anaphse
Khamarie Telophase
Nigel Cytokinesis

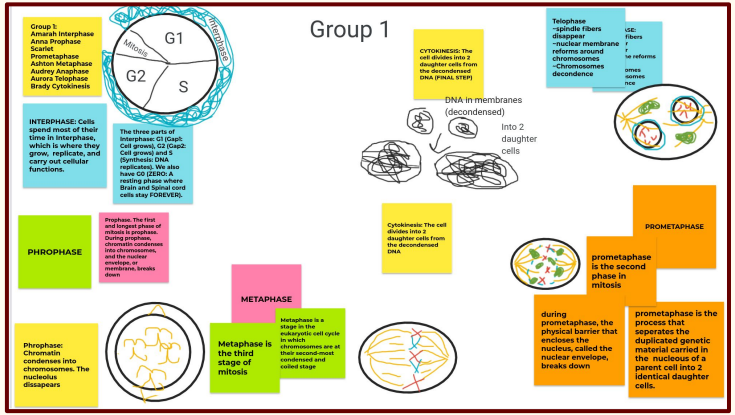
Group 4:
Quinn Interphase
Roben Propahse
Nikolas Metaphase
Sindi Anaphase
Viridiana Telophase/Cytokinesis

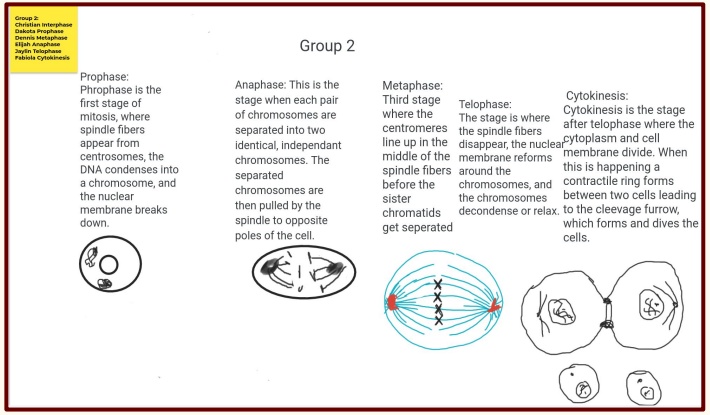
# Cell Cycle Jigsaw Group Activity (3rd hour)

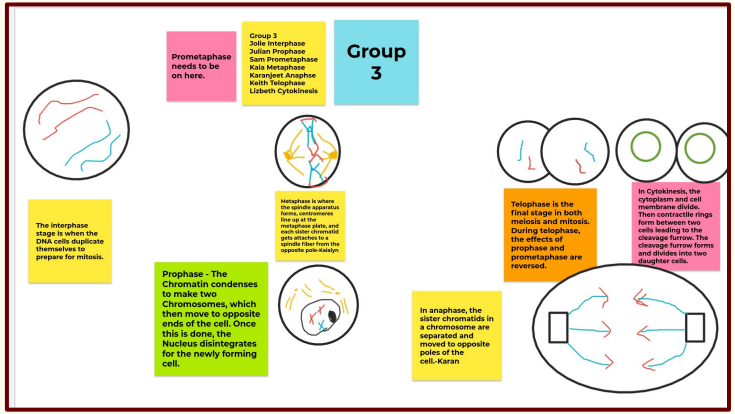
Each group member is assigned a stage from the cell cycle. Draw out your stage on Jamboard and we will view all the charts together at the end as a class. Each group has 6 students.

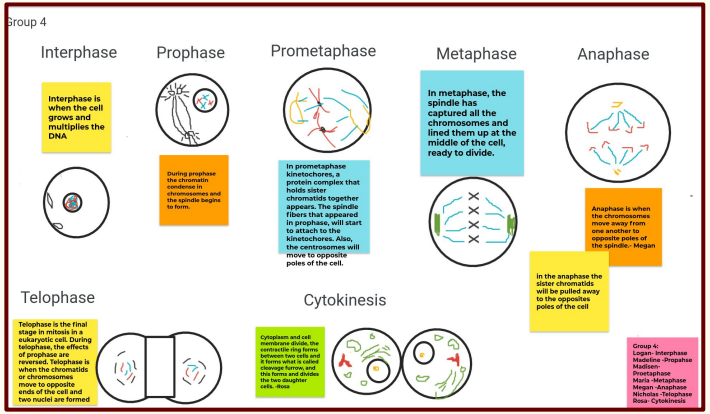
# Cell Cycle Jigsaw Group Activity (4th hour)

Each group member is assigned a stage from the cell cycle. Draw out your stage on Jamboard and we will view all the charts together at the end as a class. Each group has 6 students.




Group 1:
Amarah Interphase
Anna Prophase
Scarlet Prometaphase
Ashton Metaphase
Audrey Anaphase
Aurora Telophase
Brady Cytokinesis

Group 2:
Christian Interphase
Dakota Prophase
Dennis Metaphase
Elijah Anaphase
Jaylin Telophase
Fabiola Cytokinesis

Group 3
Jolie Interphse
Julian Propahse
Sam Prometaphase
Kaia Metaphase
Karanjeet Anaphse
Keith Telophase
Lizbeth Cytokinesis

Group 4:
Logan Interphase
Madeline Propahse
Madisen Pormetaphase
Maria Metaphase
Megan Anaphase
Nicholas Telophase
Rosa Cytokinesis

# Homework

- 7A. Henrietta Lacks annotated article (in class)
- 7B. Picture of cell cycle chart on GC (in class)
- 7C. Mitosis Drag and Drop EXTRA CREDIT