
UNDERSTANDING CELLS

Support student learning all summer long with *Gale In Context: Science*

Subject/Topic: Biology/Cells

Resource(s): *Gale in Context: Science*

Grade Levels: 7-12

Activity Summary: Using a tic-tac-toe board, learners will select a group of three simple activities to complete over the summer. Each tile on the board contains a different activity. A winning board requires successful completion of any row of activities that includes the middle tile.

Learning Expectation: Learners will continue to practice research and learning skills throughout the summer so that they are prepared for the new school year in the fall.

Procedures:

- Introduce your *Gale In Context: Science* resource before learners start. Ensure they understand how to access *Gale In Context: Science* through your library.
- Distribute the Understanding Cells tic-tac-toe board and activity directions to learners. Make sure the gray box on the board includes your *Gale In Context: Science* access URL.
- Establish a platform where learners can collaborate as they complete their tic-tac-toe activities. Consider your LMS, Google/Microsoft Drives or other virtual tools for this purpose.
- Be available to answer student questions and provide research support.

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Make a winning tic-tac-toe board! Start with the required middle square. Then select two additional activities to complete a line.

Read complete directions for each of your selected squares. When needed, access *Gale In Context: Science*

When finished, turn in your complete tic-tac-board, as well as the projects you created to complete each activity.



Create a social media post, poster, or image to share information about Cells.



Extend your knowledge and perform the Plant Cell interactive activity.



Become a scientist and conduct one Project from the Cells Experiment activity.



Research Prokaryotic Cells and Eukaryotic Cells. Compare and Contrast the different cells.

START HERE

Read the *Gale In Context: Science Cells* topic page summary. Make note of the **Key Terms** and **Background/Scientific Foundations**.

START HERE



Create a comic about the process of Cell Division, Mitosis.



Read an Article on Chromosomes. Write or record data and key ideas.



Listen to a broadcast on Mutations. Create a list of key facts and report your findings.



Create a diagram of an Animal Cell Structure and label the diagram.

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Access *Gale In Context*:



Read the summary on the *Gale In Context: Science Cells* topic page

Within *Gale In Context: Science*, search “cells” to access the topic page. Click **Read More** to read the “Cells” overview. Take notes on the **Key Terms** and the **Background/Scientific Foundations** found in the article.



Interact with Cells

Perform the **Plant Cell** activity within the **Interactive Models** on the Cells topic page in *Gale In Context: Science*. Take the **Quiz** at the end of the activity and record your answers.



Become a Scientist

Conduct one Project (1-3) from the Cells **Experiment Activity**. Follow the the **Summary of Results** to record and answer questions.



Compare and Contrast

Research **Prokaryotic Cells** and **Eukaryotic Cells**. Compare and contrast the two cells and use a Venn diagram to record your discoveries.



Create a social media post, poster, or image about Cells

Browse the **Images** and **Videos** within the *Gale In Context: Science Cells Topic Page* to see some examples. Then, build your own material about your chosen topic (i.e. Cell Structure, Cell Life Cycle, Cell Division) .



Create a comic about the process of cell division, Mitosis

Search for a **Reference** article on **Mitosis**. Use Search Within on the **Cells Topic Page** within *Gale in Context: Science*. Read about the process and develop a comic about the cell division process.



Read an Article

Find a **Topic Overview** on **Chromosomes** and read the document. Once you're done with the topic overview, write or record important data and key ideas about Chromosomes.



Listen to an Audio Broadcast

Using the **Audio Files** within the **Cells Topic Page** in *Gale In Context: Science*, listen to a broadcast on **Mutations**. Compile a list of the key facts and summarize your findings.



Create a diagram of an Animal Cell Structure

Using the **Images** within *Gale In Context: Science*, explore the **Diagram** of an **Animal Cell Structure**. Create your own diagram in the medium of your choice and be sure to label the diagram.