

Cell Biology

Complete Unit

- Cell Theory, Structure and Function, Cell Division
- Lesson & Engaging Activities
- Daily Teaching Schedule



UPGRADE to the Bundle

Save 70% and
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Curriculum

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Biology 1 Curriculum

- ✓ Complete Biology 1 Curriculum
- ✓ Google & Distance Learning Ready
- ✓ Engaging, Inquiry-Based Lessons
- ✓ Comprehensive Coverage



No Prep - Ready to Go!

Cell Biology

Unit 1 - Cell Biology

- Cell Theory
- Prokaryotic vs. Eukaryotic cells
- Cell Structure and Function
- Cell Division

Includes:

- Lessons
- Activities

Includes: Cell Theory

- Cell Facts and History
- Prokaryotic v Eukaryotic Cells

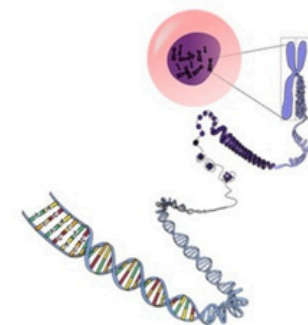
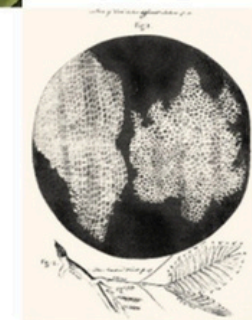
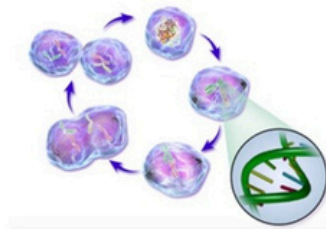
Includes: Cell Structure and Function

- Function of Cells
- Organelles

Includes: Mitosis and Meiosis

- Reasons for Cell Division
- Overview of Cell Division
- Mitosis
- Meiosis

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Lessons Include Teacher and Student Versions - Videos Embedded in Lessons

TWTF

The Cell Theory

- Biology
- Cell facts
- Discovery of cells
- Robert Hooke
- Anton van Leeuwenhoek
- Spontaneous Generation
- Louis Pasteur
- Matthias Schleiden
- Theodor Schwann
- The initial cell theory



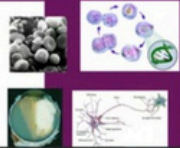
Cell Structure & Function

- Function of cells
- What are cells?
- Main cell components
- Animal and plant cell organelles
- Plant-specific organelles
- Photosynthesis and cell



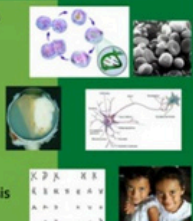
The Importance of Cell Division

- From One to Trillions
- Why it Happens
- The Cell Cycle
- Genetic Material
- Genes
- Interphase
- Mitosis
- Cytokinesis
- Checkpoints
- Errors in Mitosis



Mitosis and the Cell Cycle

- From One to Trillions
- Why it Happens
- The Cell Cycle
- Genetic Material
- Genes
- Interphase
- Mitosis Stages
- Cytokinesis
- Checkpoints in Mitosis
- Errors in Mitosis



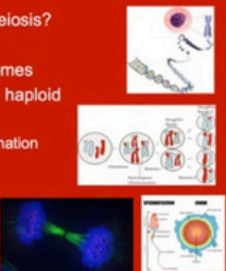
Cancer: Uncontrolled Cell Division

- Cancer Stats
- Cancer Hallmarks
- Benign vs. Malignant Tumors
- Metastasis
- Cancer Causes
- Types of Cancer
- Cancer Prevention
- Diagnosis
- Treatment



Meiosis

- What is meiosis?
- Gametes
- Chromosomes
- Diploid vs. haploid
- Meiosis I
 - Recombination
- Meiosis II



Biology

- Biology is the study of life
- It helps answer the questions:
 - How do we function?
 - Why do we act and like the things we do?



Play Video

Videos embedded directly into the slides. One-click access

Google Access

Thank you for your purchase. Clicking the link below will automatically create a copy of the Google resources and place them into your Google Drive. You'll find the folder inside the "Shared with me" section on the left side of your Drive.

Important: Before you click, make sure you're signed in to the Google account you'd like the resources placed into. If the resources are added to the wrong account, simply sign out and then into the correct one and repeat the process.

[Click here to place a copy of your resources into your Google account](#)

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Google Classroom Ready
One-Click Google Slides Access

Why do we need to have cell division?

There are 3 main reasons for cell division

- 1) _____
- 2) _____
- 3) _____



Why do we need to have cell division?

There are 3 main reasons for cell division

- 1) Reproduction
- 2) Growth
- 3) Repair/Replacement



Student and Teacher versions of the presentations

Engaging Activities

Device-Based Scavenger Hunt
Meiosis

Includes

- 5 Unique Locations
- Online form submission
- Answer Key

Works on all smartphones, tablets, Chromebooks, and laptops

- 100% Digital
- Simulations
- Quizzes
- Videos

Cell Organelle Matching Game

Grades 7-12

Cytoplasm

When completed, students will be able to identify the various organelles including the nucleus, mitochondria, Golgi apparatus, lysosomes, and vacuoles. They will also be able to describe the function of each organelle.

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Device-Based Scavenger Hunt
Cells and the Cell Theory

Includes

- 5 Unique Locations
- Online form submission
- Answer Key

Works on all smartphones, tablets, Chromebooks and laptops

- 100% Digital
- Simulations
- Quizzes
- Videos
- Games
- Word Scramble
- and more

Mitosis and Cell Division
Lab Station Activity



Cellular Organelles
Lab Station Activity

Station 1

Station 2

Station 3

Station 4

Station 5

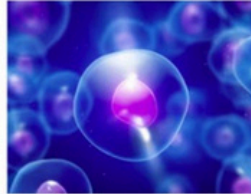
Station 6

Station 7

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Cells and the Cell Theory
Lab Station Activity

7 Lab Station Activities to get your kids out of their seats and engaged in their learning



Device-Based Scavenger Hunt
Mitosis and Cell Division

Includes

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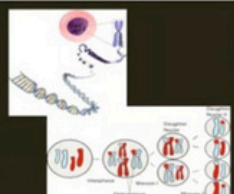
Cells and Cell Organelles

TWF BINGO



Meiosis
Lab Station Activity

7 Lab Station Activities to get your kids out of their seats and engaged in their learning



Device-Based Scavenger Hunt
Cell Organelles

Includes

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- Online form submission
- Answer Key

Works on all smartphones, tablets, Chromebooks and laptops

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- Videos
- Games

Cells and Organelles
Crossword Puzzle

• 15 - Term Crossword

• Includes 2 Versions

- Version 1 - No Word Bank
- Version 2 - Includes a Word Bank

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Mitosis and the Cell Cycle
Exit Ticket

✓ One-click to place the form in your Google Drive

✓ Includes 4 topic-specific questions

✓ Automatically graded and data presented via graphs

✓ Can be accessed from any device or projected to class

✓ Can be used as exit tickets or start of class review

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Cell Structure - Exit Ticket

✓ One-click to place the form in your Google Drive

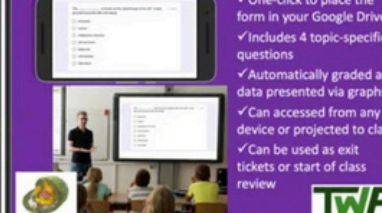
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TWF



Cell Theory - Exit Ticket

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Daily Teaching Schedule

UNIT – Cell Biology **19 DAYS TOTAL**

The Cell Theory – 3 days			
Number of Day(s)	Course Content	Teaching Resources	NGSS
1	- Cell Facts - The history of cell discovery - The initial and modern-day cell theory - A comparison between Prokaryotes and Eukaryotes	The Cell Theory - Google Slides and PowerPoint Lesson Cell Theory Exit Ticket and Review Activity	HS-LS1-1 HS-LS1-2 HS-LS1-3 HS-LS1-4
1	Hands-on review activity	Cells and the Cell Theory - 7 Engaging Lab Station Activities	
1	Hands-on review activity	Cells and the Cell Theory – A Device-Based Scavenger Hunt Activity	
Assessment(s)	There are multiple assessments included throughout this unit portion.		

Cell Structure and Function – 6 days			
Number of Day(s)	Course Content	Teaching Resources	NGSS
2	- Function of cells - What cells are - Main cell components - Diagrams - Cytoplasm - Cell Membrane - Nucleus - Mitochondria - Endoplasmic Reticulum (ER) - Golgi Bodies - Vacuoles - Chloroplasts - Photosynthesis - Cell Wall	Cell Structure and Function - Google Slides and PowerPoint Lesson Cell Structure Exit Ticket and Review Activity	HS-LS1-1 HS-LS1-2 HS-LS1-3 HS-LS1-4
1	Review activity	Cells and Organelles Crossword Puzzle , Cells and Cell Organelles BINGO - Scien Activity	
1	Hands-on review activity	Cellular Organelles - Cell Organelle Strs Function Lab Station Activity	
1	Review activity	Cell Organelles Card Matching Activity	
1	Hands-on review activity	Cell Organelles - Device-Based Scaveng Activity	
Assessment(s)	There are multiple assessments included throughout this unit portion.		

Cell Division – Mitosis and Meiosis – 10 days			
Number of Day(s)	Course Content	Teaching Resources	NGSS
1	- Cell Division for Reproduction - Cell Division for Growth - Cell Division for Repair/Replacement	Importance of Cell Division - Google Slides and PowerPoint Lesson Mitosis and the Cell Cycle Exit Ticket and Review Activity	HS-LS1-4 HS-LS3-1 HS-LS3-2 HS-LS3-3
2	- Overview of the cell cycle - Overview of genetic material including genes - Genetic features - Interphase - The phases of mitosis - Cytokinesis - Checkpoints in the cell cycle - Consequences of errors in mitosis	Mitosis and Cell Division - Google Slides and PowerPoint Lesson	
2	- Cancer Stats - Cancer Hallmarks - Benign vs. Malignant Tumors - Metastasis - Cancer Causes - Types of Cancer - Cancer Prevention - Diagnosing Cancer - Treatments	Cancer: Uncontrolled Cell Division - Google Slides and PowerPoint Lesson	
1	Hands-on review activity	Mitosis and Cell Division – Device-Based Scavenger Hunt Activity	
1	Hands-on review activity	Mitosis and the Cell Cycle - 7 Engaging Lab Station Activities	
1	- What is meiosis? - Gametes - Chromosomes - Diploid vs. haploid - Meiosis I	Meiosis - Biology PowerPoint Lesson	
	Recombination		
1	Hands-on review activity	Meiosis – A Digital Scavenger Hunt Activity	
1	Hands-on review activity	Meiosis - 7 Lab Station Activities	
Assessment(s)	There are multiple assessments included throughout this unit. UNIT TEST		

The Following Resources are Included

The Cell Theory

- [The Cell Theory - Lesson](#)
- [Cell Theory Exit Ticket and Review Activity](#)
- [Cells and the Cell Theory - Lab Station Activity](#)
- [Cells and the Cell Theory – Digital Scavenger Hunt Activity](#)

Cell Structure and Function

- [Cell Structure and Function - Lesson](#)
- [Cell Structure Exit Ticket and Review Activity](#)
- [Cells and Organelles Crossword Puzzle Activity or Cells and Cell Organelles BINGO - Science BINGO Activity](#)
- [Cellular Organelles - Lab Station Activity](#)
- [Cell Organelles Card Matching Activity](#)
- [Cell Organelles - Digital Scavenger Hunt Activity](#)

Mitosis and Meiosis

- [Importance of Cell Division - Lesson](#)
- [Mitosis and the Cell Cycle Exit Ticket and Review Activity](#)
- [Mitosis and Cell Division - Lesson](#)
- [Cancer: Uncontrolled Cell Division - Lesson](#)
- [Mitosis and Cell Division – Digital Scavenger Hunt Activity](#)
- [Mitosis and the Cell Cycle - Lab Station Activity](#)
- [Meiosis - Lesson](#)
- [Meiosis – Digital Scavenger Hunt Activity](#)
- [Meiosis - Lab Station Activity](#)

Who's It For?

- **High School Biology Teachers**
- **Teachers using NGSS**
- **Teachers who want to increase their student's engagement and retention**
- **Teachers not looking to reinvent the wheel**



Save yourself the **STRESS AND TIME**



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Spend your time WISELY



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