

Unit Overview: **Cells-Build-A-Lot**

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Grade Level: Science, 7

Essential Question:

What was life like for the indigenous in the Caribbean?

Summative Assessment:

Students will create a poster, speech or comic book to demonstrate the Caribbean through the following lenses: Political, Social, Economic and Geographic. Note some of these will intersect.

The WOKE Cypha Elements intertwined will be:

- Storytelling
- Sankofa
- Artistry

Vocabulary	Day	Student will be able to	Assessment/Activity
Cell Equilibrium Homeostasis	1	45 min: Recognize that cells are the smallest unit of life by discussing the 3 main components of Cell Theory.	Think-Pair-Write-Share Peer Partnership Activity Diagnostic Assessment (PreTest)
Environment Tissue Organ Organelle Energy	2	45 min: Classify the main function of cells by identifying how cells help living things carry on activities of life (such as the breakdown of food, movement, growth, and reproduction).	Exit Ticket: List everything you know about what the cells in your body can do.
Microscope	3	90 min: Differentiate between single cell and multicellular organisms.	Guided Practice: Prokaryotic Cells Vs. Eukaryotic Cells Interactive Notebook Graphic Organizer
	4	45 min: Explain how single celled organisms are considered to be living things.	Homework: Research a single celled organisms that lives in your community and write 1 paragraph about how this organism is able to survive with only 1 cell.

Vocabulary	Day	Student will be able to	Assessment/Activity
Cell Equilibrium Homeostasis Environment Tissue Organ Organelle Energy Microscope	5	45 min: Recognize that all living things are made up of cells.	Do Now: How do you know you're alive? List 3 examples. Guided Practice: Read and annotate characteristics of life article. <ul style="list-style-type: none"> • Select 1 sentence that you feel is important. • Underline a phrase to share with a peer • Circle 1 word that you're going to share out with the entire class Homework: Write a 10-line poem about the characteristics of life using the words that were shared out whole group.
	6	90 min: Apply inquiry and analytical skills by using a microscope to identify cells.	Do Now: Label the Parts of a Microscope (Before Lesson) Independent Practice: Generate a list of questions based on observations made while using microscopes. Exit: Label the Parts of a Microscope (After Lesson)
	7	45 min: Identify what cells are made of by creating illustrations of animal cells.	Independent Practice: Research each vocabulary word (animal cell organelles) and draw visual representations for each word.
	8	45 min: Correctly identify animal cell organelles by matching vocabulary words to the correct image.	Pop Quiz: Identify parts of an animal cell and write one sentence about the function/purpose of each organelle.
	9	90 min: Identify how their surrounding environment operates much like the parts of a cell.	Do Now: How does a city function? Create a list of all the major parts of a city and their significance. Ex. A supermarket is important to a city because it stores groceries until people are ready to buy food to eat.

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	10	45 min: Make real world connections by explaining how each part of a cell is comparable to the parts of a city.	Independent Practice: Research Cell City Projects and complete graphic organizer for each organelle.
	11-12	45 min: Make correlations between parts of a cell by designing cell city models.	Guided Practice: Preparing for Public Speaking
	13-14	Students will discuss how different cells have different jobs by selecting cells, tissues, organs, and organ systems.	<p>Independent Practice: Student Presentations</p> <p>Do Now: How do cells work together to keep you healthy?</p> <p>Guided Practice: Cell to Organ System Graphic Organizer</p> <p>Independent Practice: On Demand Writing-What environmental factors affect your cells ability to keep you healthy?</p>
	15-16	<p>Day 1: 45 min</p> <p>Day 2: 90 min</p> <p>Students will demonstrate their understanding of cell into tissue organization by classifying organs.</p>	<p>Day 1: Independent Practice: Create a labeled concept web to show the cells which work together to form a tissue. Day 2: Show the tissues that work together to form an organ. Label a group of organs that work together as an organ system.</p> <p>Homework: Students will have 2 days to complete. How do members of a community work together? What happens if members of a community stop working together? How can this be compared to cells and tissues working together to support organs? Identify someone/a group that supports your community. Why would you contact them? How can you get into contact with this person/these people?</p>

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	17	90 min: Explain the difference between cell and a tissue and between a tissue and an organ.	Do Now: Guess which organ entrance ticket? Students will recall prior knowledge by describing three types of cells that are found in the human body.
	18	45 min: Apply concept mapping skills by making an event-chain concept map of the different levels of cell organization from cell to organ system. Provide an example of each level of organization.	Do Now: Why do we use time lines? What chain of events take place when building a community? If your body was a community, what are the necessary chain of events that would be needed?
	19-21	Day 1: 45 min Day 2: 90 min Muscular and Skeletal: Identify the cells, tissues, and organs in the skeletal system and explain how bones and muscles work like levers.	Do Now: Describe in your science notebook how the different muscles in your upper arm were working during each movement. Guided Practice: Create your own study organizer foldable to help you understand the functions of skin, muscles, bones, and nerves. Independent Practice: On Demand Writing Task-How are you like a building? Imagine for a moment that your body does not have a support system. How will you perform your daily activities? Explain your reasoning.
	22	45 min: The Skin: After drawing and labeling the parts of the skin, students will explain how the skin protects its body from disease and how it heals itself.	Take it Home and Bring it Back Exit (Class Discussion) to Homework Assignment (Written Work Product): Essay-How does the information you receive about your surrounding environment come through your skin?

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	23-24	<p>Nervous System 90 min: Day 1: Predict what type of stimulus each sense organ responds to and how. 45 min: Day 2: Explain how drugs specifically affect the nervous system.</p>	<p>Think-See-Wonder: Look at the picture and think about all the activities that you see. List the types of stimuli that are present within the picture. Exit Ticket: How does your nervous system cause your body react to the surrounding environment? Day 2: Read, Annotate, Write: Summarize the effects of drugs and alcohol use on human organ systems.</p>
	25-26	<p>Circulation 45 min: Day 1: Compare and contrast arteries, veins, and capillaries. 90 min: Day 2: Design real life illustrations of the heart and explain how blood moves through each part of the heart.</p>	<p>Neighborhood Community Walk Activity Lab: Resting Heart Rate vs. Active Heart Rate Experiment Design Human Heart Posters, Label all major parts of the human heart</p>
	27	<p>45 min: Lymphatic Students will recognize that the immune system works to protect all components of the body by identifying their own lymph nodes.</p>	<p>Immune System Assessment What does the hood know? How does a community keep itself safe? What if you no longer had an immune system? Would your cells and organs be able to function? Why, why not?</p>
	22	<p>45 min: Digestive System After identifying the major organs of the digestive system, students will explain how homeostasis is maintained in digestion.</p>	<p>Pop Quiz: Notorious B.I.G Kahoot! Homework: Argument Essay-Does the food that's readily available in your environment help you or hurt you? Defend your argument, develop a counterargument.</p>
	29-30	<p>Respiratory System 45 min: Day 1: Describe the functions of the respiratory system. 90 min: Day 2: Explain how oxygen and carbon dioxide are exchanged in the lungs and in tissues</p>	<p>What are the major causes of respiratory illness in your community? <i>Research It!</i> Based on smog levels, compare the quality of air in your community to one that is at least 10 miles away. What can you do to help raise awareness about the air quality in your neighborhood?</p>

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	31	<p>Excretory System 45 min: Distinguish between the excretory and urinary systems by explaining what happens when the urinary organs do not work.</p>	<p>Make and Use Graphs: Use the table provided in your textbook to create a circle graph of major sources by which body water is gained.</p> <p>Homework: Summarize the function of the kidneys, how kidney failure affects homeostasis, and what treatments are available in your community for patients with kidney failure.</p>
	32	<p>Double Period: Students will be able to synthesize their knowledge of content and skills acquired by:</p> <ul style="list-style-type: none"> • Designing a t-shirt representing a Human Body system, illustrate the major organs that represent the body system, and include other body systems and or organs that help the human body maintain homeostasis depending on the environment. • Producing a writing sample following the steps to write for information, which will include how they perceive the impact the surrounding environment has on the development of cells to human body systems. 	Summative Assessment
	33	End of Unit Celebration	Peer Review/Self-Assessments Summative Assessment Presentations