

Canva-Cellular Organelles Technology

Grade: 7th -9th		Subject: Science	
Materials: Computer, student emails		Technology Needed: PowerPoint, laptops, access credentials	
Instructional Strategies: *Direct instruction *Guided practice *Technology integration *Peer teaching/collaboration/cooperative learning *Visuals/Graphic organizers *PBL *Modeling		Guided Practices and Concrete Application: *Independent activity *Simulations/Scenarios *Hands-on *Technology integration Explain: Students will use Canva software to create and infographic	
Standard(s) Standard 4: Students understand the basic concepts and principles of life science. Standard 6: Students understand relations between science and technology.		Differentiation Below Proficiency: If a student identifies as below proficiency I would put them into groups or with a partner to aid them. Above Proficiency: If a student identifies as above proficiency I would have them look further into the topic by researching new software techniques that could be used in the science field. Approaching/Emerging Proficiency: If students are emerging proficiency they should be able to complete and understand the homework. Modalities/Learning Preferences: I encourage students to move around the classroom, interact with students, and ask questions.	
Objective(s) 9-10.6.1. Use appropriate technologies and techniques to solve a problem (e.g., computer-assisted tools, Internet, research skills) 7.4.1. Explain the functions of the cell (e.g., growth, metabolism, reproduction, photosynthesis, response) Bloom's Taxonomy Cognitive Level: Application, Analysis			
Classroom Management- (grouping(s), movement/transitions, etc.) Students are required to sit in their desks with their laptops. They must work individually and can ask me for questions. Student must demonstrate proper internet/computer use.		Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.) As I lecture for a few short minutes I expect students to be attentive and participate in discussion. During the activity, I encourage students to maintain an inside voice and be respectful while everyone works.	
Minutes	Procedures		
15	Set-up/Prep: Login in to Canva. Find a few examples for students to view. Become familiar with the software.		
5	Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.) Hello class, yesterday we talk about the cellular organelles that are required to keep a cell functioning. Can anyone tell me the function of the mitochondria? So today we are going to be using our laptops to create an infographic using the software Canva. The purpose of creating the infographic is to organize the organelles in a creative way and to help students remember the content.		
10	Explain: (concepts, procedures, vocabulary, etc.) I am going to explain the guidelines and how to access the canvas software. So, I need everyone to go get a laptop. I will walk students through the Canva login in by asking them for their school email. I then will show them how to navigate the site and create a new infographic. The infographic must contain at least 10 organelles from the notes. The organelle needs to be listed and its function. The infographic must have at least 5 pictures of organelles. The infographic must be neat and organized to receive full credit. No grammar mistakes.		
30	Explore: (independent, concrete practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions) Students will have the remaining time of class to work on creating their infographic and exploring the Canva site. The requirements for the infographics are posted below and handed to the students before they start working.		
5	Review (wrap up and transition to next activity): Student will use this time to put away laptops and ask me any questions about the software or the content.		
Formative Assessment: (linked to objectives)		Summative Assessment (linked back to objectives)	

Progress monitoring throughout lesson- clarifying questions, check-in strategies, etc.

Does everyone have at least 10 organelles listed with their functions? Is anyone having trouble navigating Canva?

Consideration for Back-up Plan:

If the internet is not working I will ask the students to create a small poster describing the function of the organelles.

End of lesson: Cellular organelles are essential for healthy cells; therefore it is important to know their function and how they help the cell survive.

If applicable- overall unit, chapter, concept, etc.:
NA

Reflection (What went well? What did the students learn? How do you know? What changes would you make?):
To be reflected after lesson is taught.

Canva Assessment: Students will be assessed based on quality and number of requirements met, based off the above guidelines. Examples of infographics are shown below.

THE BEST HEALTH APPS

One rarely falls in love without being as much attracted to what is interestingly wrong with someone as what is objectively healthy

by Stephanie Potter

- 1 THERMOMETER APP**
A further sign of health is that we don't become undone by fear and trembling, but we take it as a message that it's time to stop struggling and look directly at what's threatening us, said Pema Chödrön.
- 2 HEART RATE MONITOR**
If we are creating ourselves all the time, then it is never too late to begin creating the bodies we want instead of the ones we mistakenly assume we are stuck with, said Deepak Chopra.
- 3 PERIOD TRACKER**
The greatest miracle on Earth is the human body. It is stranger and wiser than you may realize, and improving its ability to self heal is within your control, said Dr. Fabrizio Mancini.
- 4 INSULIN MONITOR**
Freedom from obsession is not about something you do; it's about knowing who you are. It's about recognizing what sustains you and what exhausts you, says Geneen Roth.
- 5 HEART RATE MONITOR**
If we are creating ourselves all the time, then it is never too late to begin creating the bodies we want instead of the ones we mistakenly assume we are stuck with, said Deepak Chopra.
- 6 GLUTEN-FREE RECIPES**
The human body has been designed to resist an infinite number of changes brought about by its environment. The secret of good health lies in successful adjustment to changing stresses on the body.
- 7 SLEEP ANALYSIS**
Learn to follow the inner self, healing is simply attempting to do more of those things that bring joy and fewer of those things that bring pain, said O. Carl Simonton.
- 8 TRAINING CLUB**
I promise you nothing is as chaotic as it seems. Nothing is worth diminishing your health. Nothing is worth poisoning yourself into stress, anxiety, and fear, said Steve Maraboli.

Research on this article is done with the help of Heath Thomas, a health technology expert teaching at University of Louisiana.

Cells & DNA

A single cell can contain from 25 to 19 feet of DNA

75 to 100 trillion
The amount of cells the body is composed of

Where 20 recessive alleles in chromosomes cause one type of disease, but all alleles for a disease can be present in a person

A cell's inability to undergo apoptosis can result in the development of cancer.

The chromosomes and DNA from all your cells put end to end... would stretch from the Earth to the Moon **6,000 times** or from the Earth to the Sun **30 times**

200
New York City phone books would be the size for a lot of the bases in your DNA (A, C, G, and T).
10-30 phone books

Your body is creating and killing about **15 million red blood cells** per second

It takes about eight hours for one of your cells to completely copy its DNA.

Human cells contain 23 pairs of chromosomes.

Humans shed and regrow outer skin cells about every **27 days**

You could fit one thousand cell nuclei across the period at the end of this sentence.

About **95%** of the cells in your body are bacteria

100 billion
The number of neurons in the human brain