



ISD Virtual Learning

Contemporary Issues : COVID-19 Update

April 23, 2020



Contemporary Issues

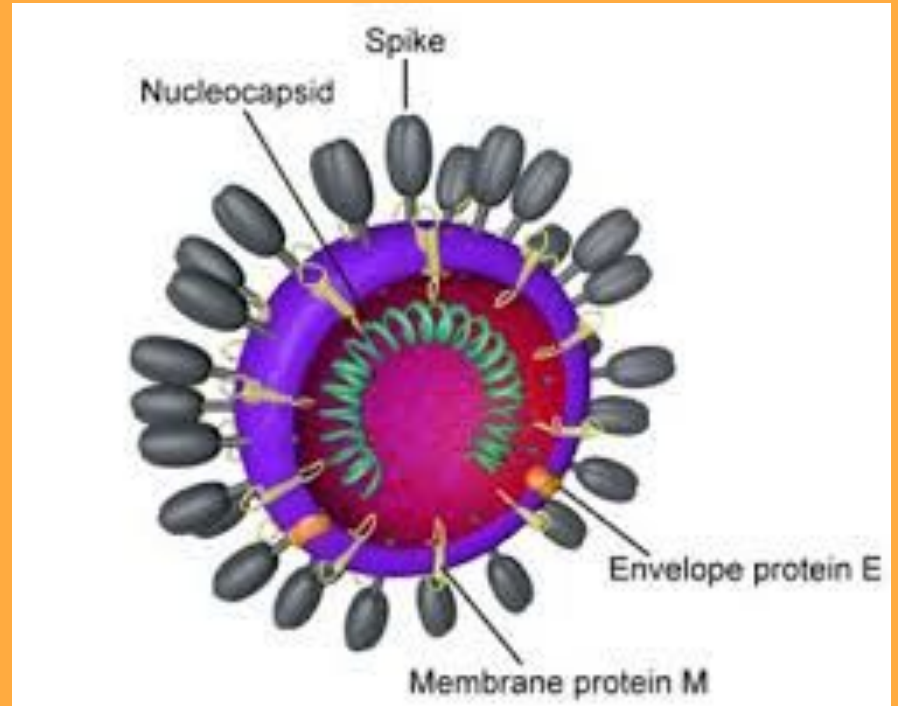
Lesson 4: April 23rd: COVID-19 Update

Objective/Learning Target: Students will be able to understand how scientists view and analyze the COVID-19 Virus.

Warm Up

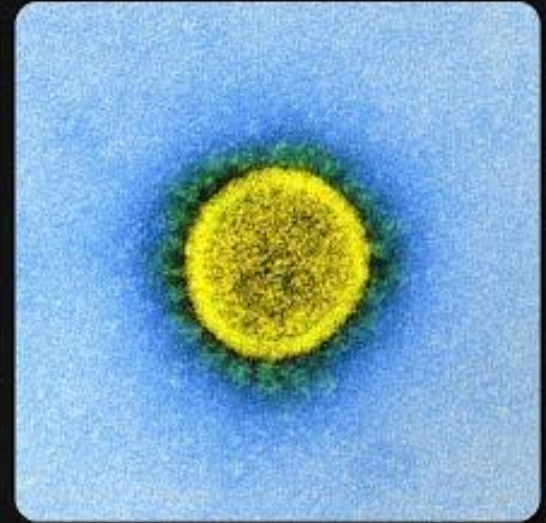
Each Thursday we'll check in on COVID-19 and how it's being handled around the world.

Today we'll look at how scientists view and analyze the virus using electron microscopes. For this warm up look at the diagram of a coronavirus. Make a prediction as to what you think the "spikes" on the virus do.



Lesson Activity

Watch the video. Make a list of 5 things you learned while watching. Be prepared to answer some questions about the video on the next slide.



Practice

Answer the following questions on a separate sheet of paper:

1. How small, in general, are viruses? What kind of microscopes do scientists use to view them?
2. Why do images of the coronavirus have color?
3. What is the purpose of the spike proteins that form a “crown” around the outside of the virus? Why do scientists focus on these spikes?
4. What does the coronavirus use human cells for?
5. What is inside a virus?

Practice- Answers

1. How small, in general, are viruses? What kind of microscopes do scientists use to view them? - They're very small; you need to use an electron microscope
2. Why do images of the coronavirus have color? - So that the viewer can differentiate between the virus and the surrounding human cell
3. What is the purpose of the spike proteins that form a "crown" around the outside of the virus? Why do scientists focus on these spikes? - The spike proteins allow the virus to attach and stick to human cells; Scientists focus on the spike proteins because if they can stop human cells from accepting them then the virus can't hijack the cell.
4. What does the coronavirus use human cells for? - It hijacks them and forces the human cell to create more copies of the virus.
5. What is inside a virus? - Genetic material (RNA)

Reflection

Think about the following questions:

1. Do you agree with the scientist's statement at the end of the video that visually facing the virus allows us to better understand it?
2. Do you think this video could help reduce the fears people have about the virus?