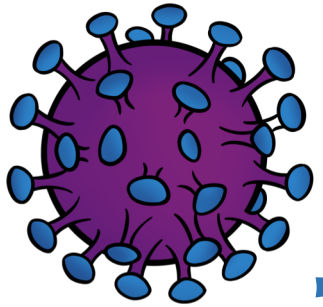
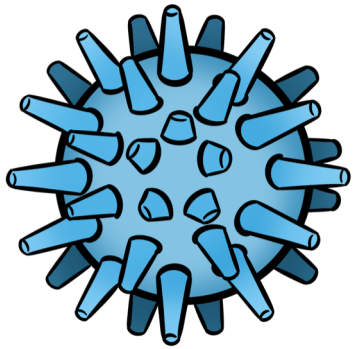
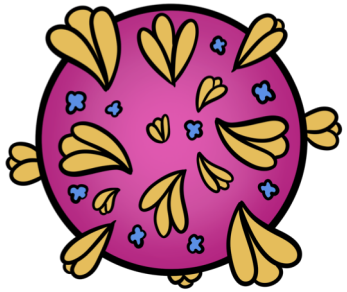
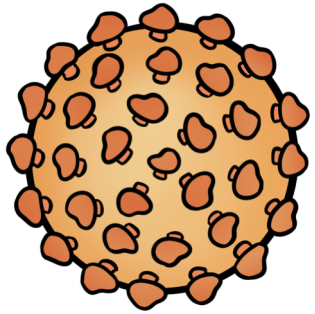


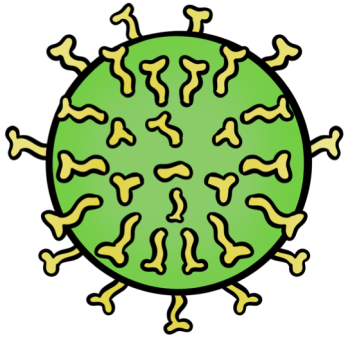


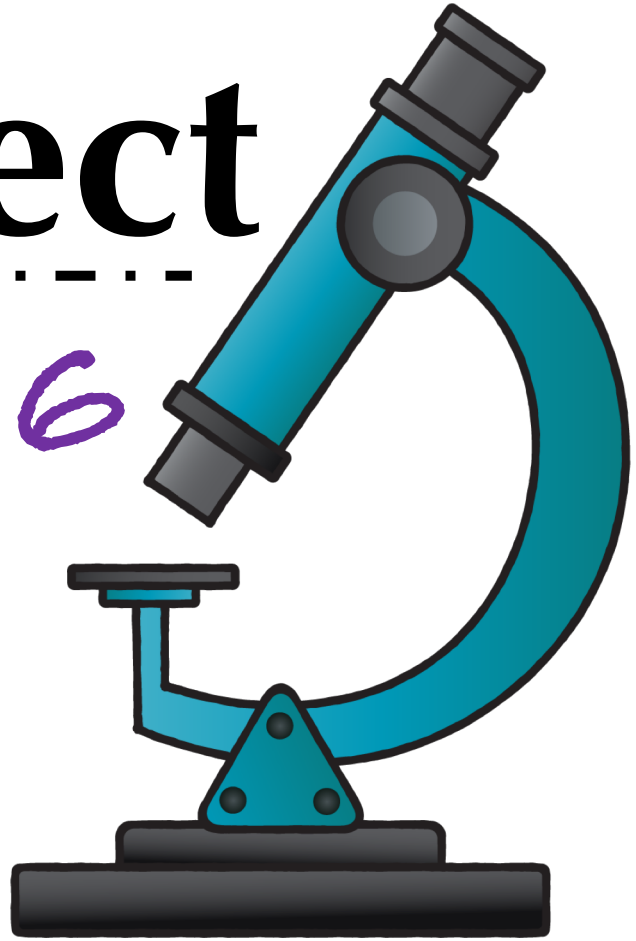


The Virus Project

Mystery Virus 6



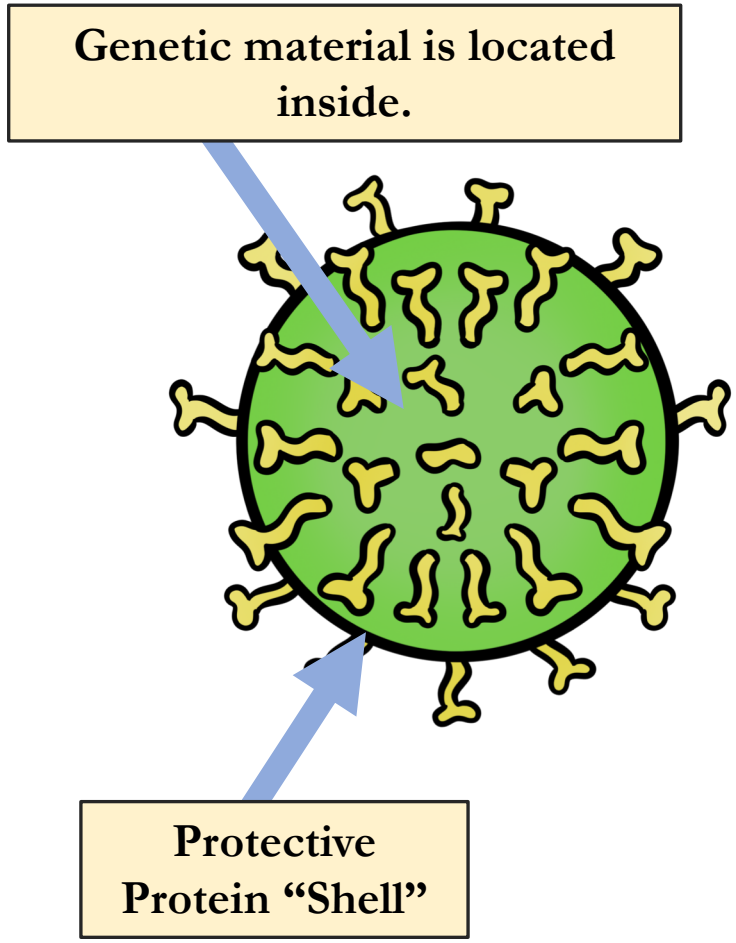




Note: This mystery virus is based upon a real-life virus.

Research Card #1 Mystery Virus 6

- This mystery virus contains double-helix RNA molecules as its genetic material.
- It does not have an envelope around its exterior, just proteins. It is called a "naked" virus.
- The "spikes" on the outside of the virus help it "find" and attach to a potential host cell.
- It enters the cell through endocytosis.

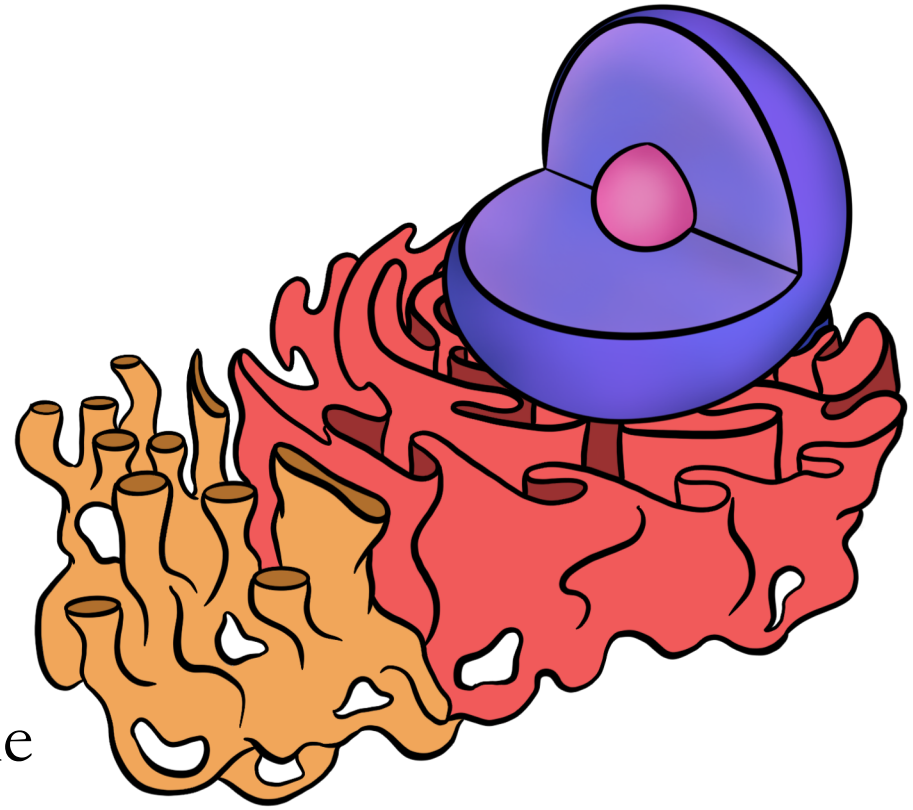


Research Card #2 Mystery Virus 6

- Once inside of the cell, the virus uses its own enzyme to make mRNA. Then, it hijacks cellular machinery for translation.

- Once enough viral proteins are made, the viral particles begin to assemble.

- The virus will cause the host cell to eventually "lyse," or burst open to release the new viral particles.

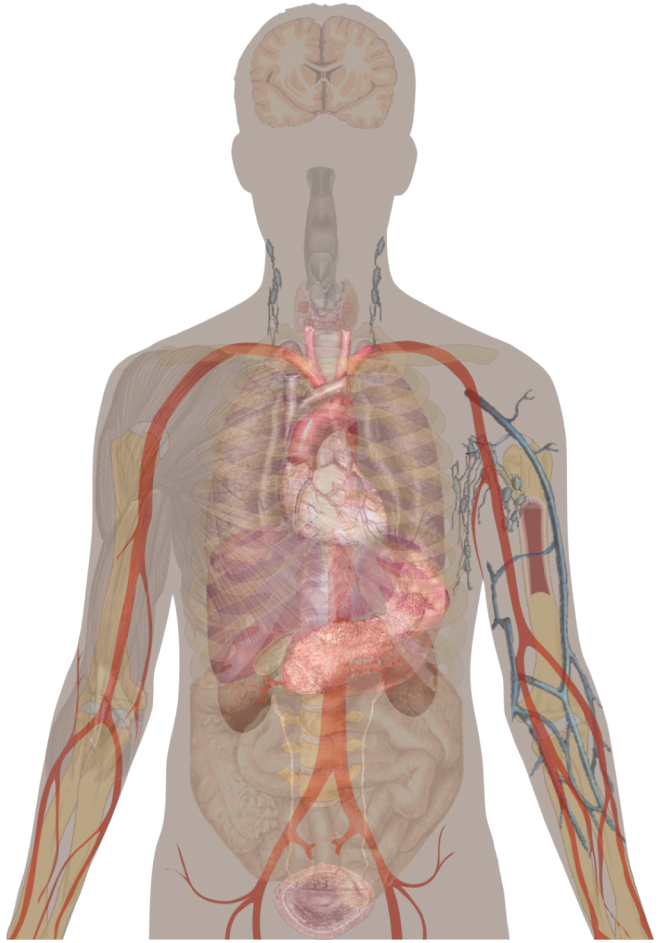


Research Card #3 Mystery Virus 6

- The virus tends to infect cells in the digestive tract, particularly those in the small intestines.

- Symptoms include vomiting and diarrhea. Most adults infected with the virus show no symptoms or have very mild ones. Children are most likely to have severe symptoms which can lead to dehydration and death.

- Viral particles are spread via the fecal-oral route. The virus is found in the feces of infected individuals. It spreads when those individuals do not wash their hands after using the restroom and contaminate surfaces or prepare foods.

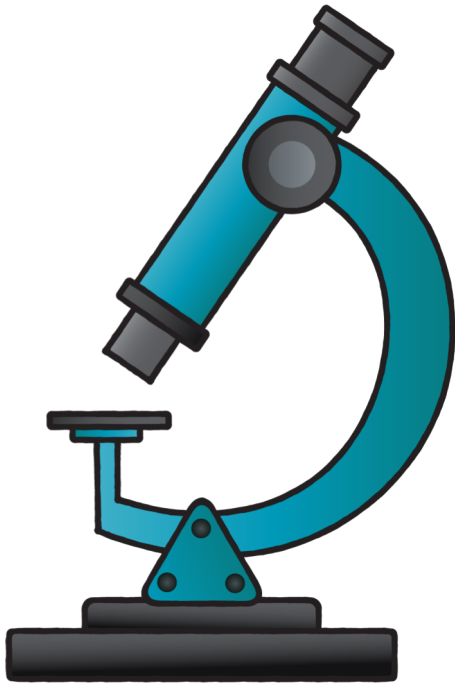


Research Card #4 Mystery Virus 6

- At this time, there are no known mutations that confer immunity in the human population to this particular virus.

- Children are most susceptible to complications of this virus. Most children in the world have been infected; though vaccines for infants have helped lower the severity of disease and thus, the mortality rates. This virus can lead to severe dehydration for young children, causing death. It is still problematic in parts of the world where the vaccine is not readily available.

- There are multiple species of this virus as a result of viral evolution. Research on this virus continues…



Viruses are so small that they must be viewed using an electron microscope. Many experiments are carried out with cells purposely infected to better understand the biology of the virus and how antivirals might work.