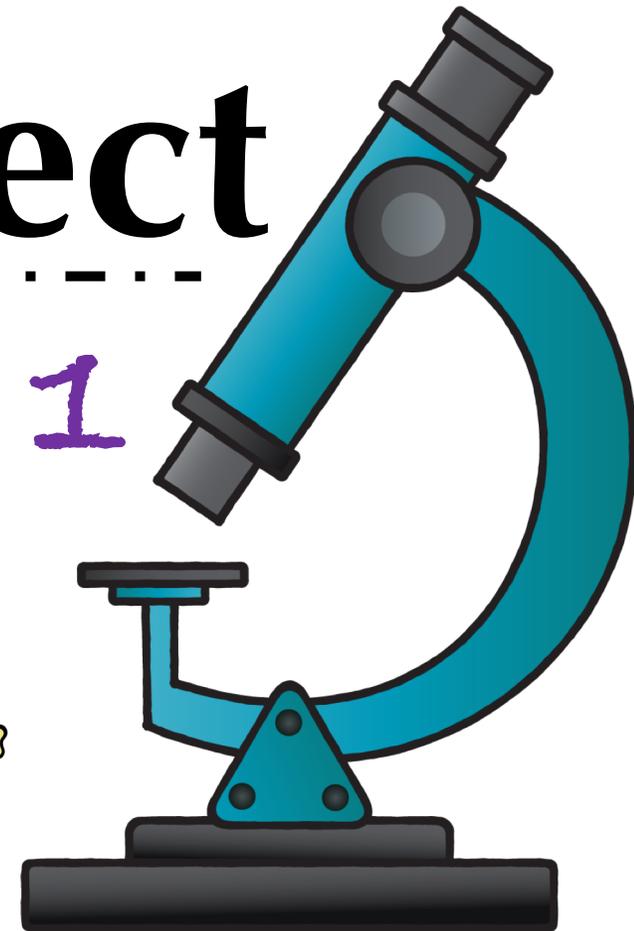
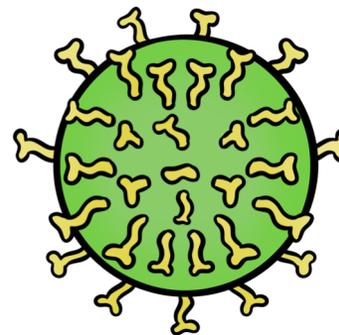
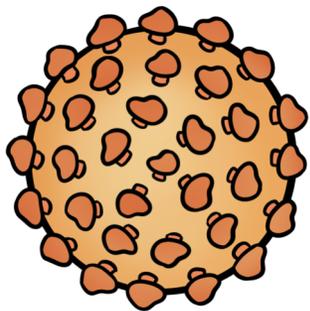


The Virus Project

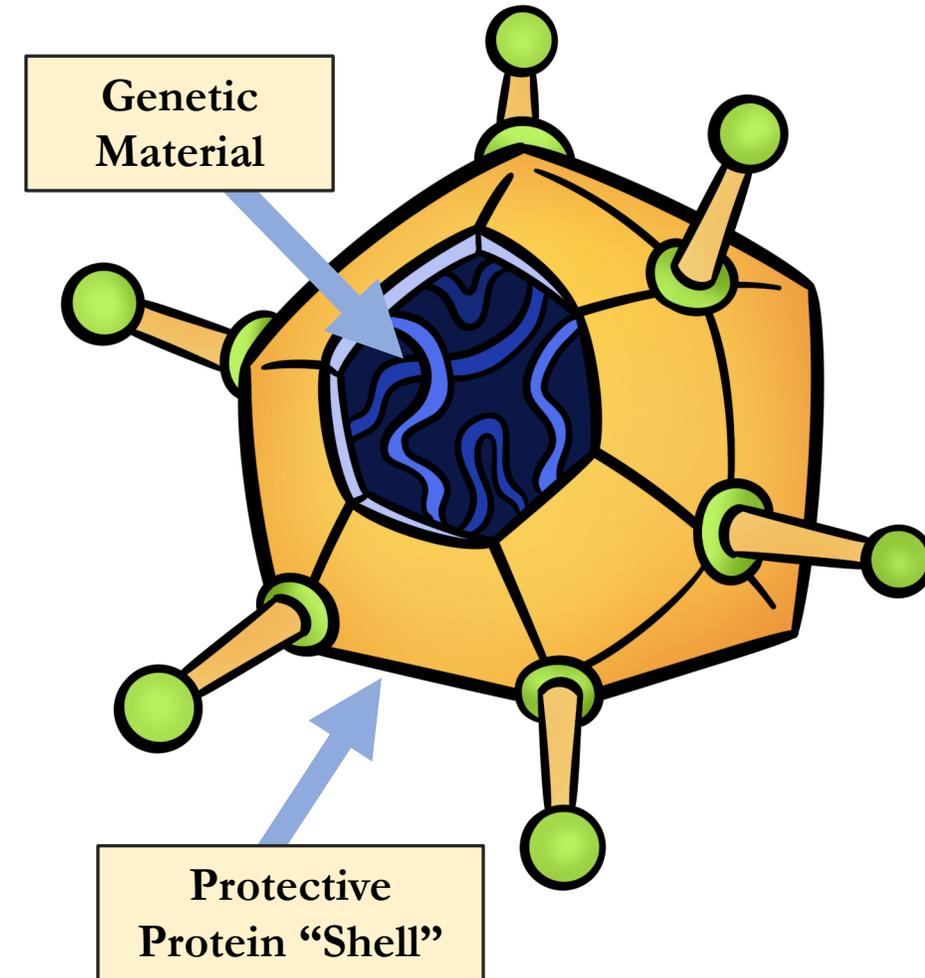
Mystery Virus 1



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

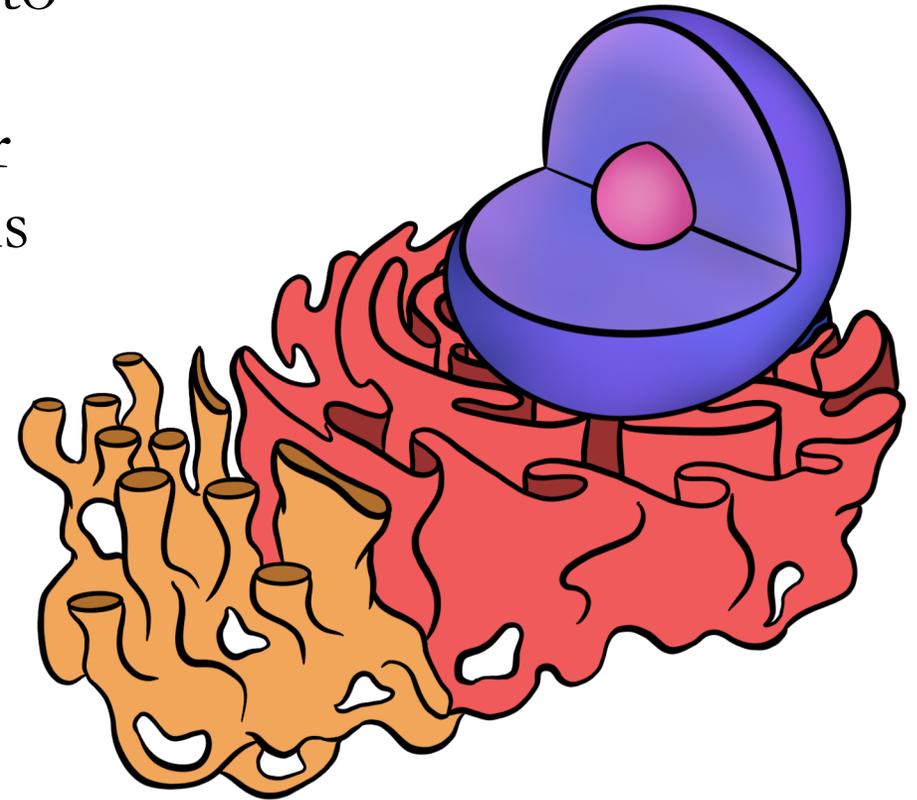
Research Card #1 *Mystery Virus 1*

- This mystery virus contains double-stranded, linear DNA.
- 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 1*

- Once inside of the cell, the DNA moves into the nucleus where transcription occurs. mRNA is translated in the cytoplasm similar to normal cellular translation. (Viral DNA is sometimes added to the host cell's genome.)
- Once enough viral proteins are made, the viral particles begin to assemble.
- In certain cells, the virus will eventually kill the host cell. In other cells, the virus will continue to make copies of itself, and they will be released to neighboring cells.

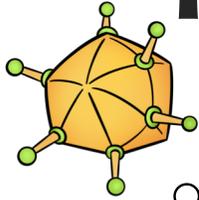
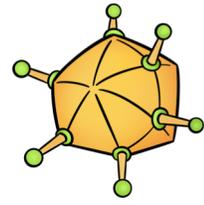


Research Card #3 *Mystery Virus 1*

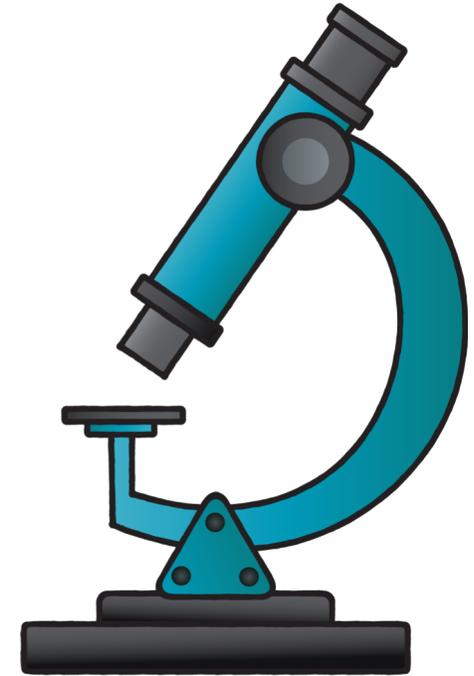
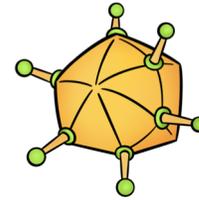
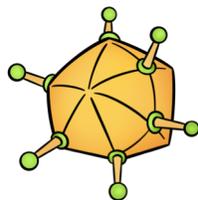
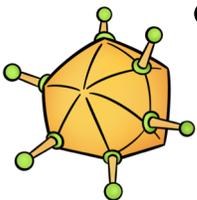
- The virus tends to infect cells in the eyes, airways and lungs. It can also infect the intestines and the nervous system.
- Symptoms are generally mild and can include pink eye, fever, cough and sore throat. The virus tends to cause more extreme symptoms in children and those with weakened immune systems.
- Viral particles are spread when an infected person sneezes or coughs. They can also be spread by fecal matter (if an infected person does not wash their hands after using the restroom, they can spread particles through surface contamination or in food if handling it).



Research Card #4 *Mystery Virus 1*



- At this time, there are no known mutations that confer immunity in the human population to this particular virus.
- The human immune response appears to be able to fight well enough to prevent severe infection in most cases, and this virus is most dangerous when people are immunocompromised (due to chemotherapy for example).
- There are multiple “versions,” or serotypes, of this virus as a result of viral evolution. A few are capable of causing more severe disease. 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.