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Curriculum Units by Fellows of the National Initiative
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This Means War! The Battle of Humans and Viruses

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My unit is on the evolutionary relationship between humans and viruses. Since the beginning of our existence, humans have fought off virus infections, but also sometimes succumbed to virulent virus diseases. The same could be said for the evolution of viruses, which have both won and lost in their interactions with humans. This ongoing relationship, which has been described as an "Arms Race", has caused both sides to experience devastating mortality rates. During my unit, we will investigate the history of the relationship between humans and viruses, and its impact on our world. After investigating past human-virus relationships, we will explore the modern day battles with viruses taking place in human populations all over the world.

The more virulent, or deadly viruses will be the focus of much of this unit. Virulent viruses were chosen because, in general, my students are more familiar with their impact on humanity. We will then expand our knowledge of viruses by identifying the different qualities of viruses, which will in turn, help the students to understand the processes that have shaped the evolution of both humans and viruses. The unit will culminate with students using their understanding of human-virus relationships to predict possible outcomes of this relationship in the future.

(Developed for Biology, grades 10-12; recommended for Microbiology, grades 10-12, and Evolution, grades 9-12)

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