

# Influenza Outbreak Kit Curriculum Standards Alignment

Lesson	NGSS standard	AP Standards	Notes
Structures	<b>HS-LS1-1:</b> Structure and Function- Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins, which carry out the essential functions of life through systems of specialized cells.		Cell structure and function
Solutions and micropipetting			
ELISA test and antibodies Immunity	<b>HS-LS1-1-</b> Construct an explanation based on valid and reliable evidence obtained from a variety of sources (including students own investigations, models, theories, simulations, peer review) and the assumption that theories and laws that describe the natural world operate today as they did in the past and will continue to do so in the future. <b>HS-LS3-2-</b> Make and defend a claim based on evidence about the natural world that reflects scientific knowledge, and student generated evidence.	IST-3.A - Described the ways that cells can communicate with one another. IST-3.B - Explain how cells communicate with one another over short and long distances.	Immune system
Flu Neuraminidase BLAST and sequencing informatics	<b>HS-LS1-1-</b> Construct an explanation based on valid and reliable evidence obtained from a variety of sources (including students own investigations, models, theories, simulations, peer review) and the assumption that theories and laws that describe the natural world operate today as they did in the past and will continue to do so in the future.	SY1-3.A - Explain the connection between variation in viral surface proteins (due to mutation) to the ability of the organism to survive and/or reproduce in different environments.	
PCR for Neuraminidase gene	<b>HS-LS1-1-</b> Construct an explanation based on valid and reliable evidence	IST-1.P - Explain the use of genetic engineering	

	<p>obtained from a variety of sources (including students own investigations, models, theories, simulations, peer review) and the assumption that theories and laws that describe the natural world operate today as they did in the past and will continue to do so in the future.</p> <p><b>HS-LS3-2-</b> Make and defend a claim based on evidence about the natural world that reflects scientific knowledge, and student generated evidence.</p>	<p>techniques in analyzing or manipulating DNA</p>	
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