

Simpocalypse for High School Biology: STEM Explorer Project Rubric

	<b>(4) Exceeds Expectations</b>	<b>(3) Meets Expectations</b>	<b>(2) Below Expectations</b>	<b>(1) Far Below Expectations</b>	<b>(0) Incomplete</b>
<b>Simpocalypse Tutorial</b>	Entire Simpocalypse tutorial completed. Student demonstrates exemplary understanding of the concepts.	Entire Simpocalypse tutorial completed. Student shows enough understanding to be able to move on and complete the project.	Most or all of the tutorial completed, but student shows a lack of understanding of important concepts required for successful manipulation of the app to meet project objectives.	Tutorial not completed (or completed with little effort). Student demonstrates few of the skills needed to move forward in the project.	Simpocalypse tutorial incomplete. Student does not have the understanding needed to move forward in the project.
<b>COVID-19 Research</b>	Student demonstrates exemplary understanding of the COVID-19 pandemic including: biology, spread, effect on society, and current mitigation efforts.	Student shows understanding of the most important factors concerning COVID-19.	Student shows some understanding of important factors concerning the COVID-19 pandemic, but is missing important details.	Does not demonstrate clear understanding of COVID-19 or the research is incomplete.	Student does not turn in or demonstrate knowledge of COVID-19.
<b>Modeling COVID-19 in Simpocalypse</b>	Student faithfully re-creates COVID-19 (as currently understood) and can demonstrate how each manipulated factor fits the current understanding of the disease (societal as well as disease-specific factors). Disease file is saved and results can be replicated.	Student presents general accuracy in the creation of COVID-19 in Simpocalypse, but may be missing (or misinterpreting) one or more important factors. Disease file is saved and results can be replicated.	What the student created in Simpocalypse shows only partial understanding of the disease. Numerous factors related to the disease are not properly modeled in Simpocalypse and/or the data are misinterpreted. Results of the disease file may not be replicable.	Model in Simpocalypse does not accurately describe what we currently know about COVID-19. Student shows general misunderstanding of the important factors in the model.	Student does not complete the modeling aspect of the assignment.
<b>Plan to Eradicate COVID-19</b>	Student creates an action plan for dealing with COVID-19 on a societal level. Student proves action plan works as intended by demonstrating it in action and/or with saved data from Simpocalypse. Plan shows thorough understanding and is convincing and realistic.	Student creates an action plan for dealing with COVID-19 on a societal level. Student is generally able to prove that the action plan works as intended by demonstrating it in action and/or with saved data from Simpocalypse.	Action plan created, but is lacking detail and/or understanding of factors that can successfully mitigate COVID-19. Data generated or demonstrated may not match claims.	Action plan is incomplete and/or unrealistic. Student shows lack of understanding of how to mitigate viral outbreaks in Simpocalypse or in the real world.	Student does not create an action plan for mitigation of COVID-19.

	<b>(4) Exceeds Expectations</b>	<b>(3) Meets Expectations</b>	<b>(2) Below Expectations</b>	<b>(1) Far Below Expectations</b>	<b>(0) Incomplete</b>
<b>Presentation of Plan</b>	Action plan is presented clearly and in an organized fashion. Visual aids are effective. Student is able to explain each factor that plays a role in influencing the statistics generated by the Simpocalypse application.	Action plan is presented clearly and in an organized fashion. Visual aids are used. Student is able to adequately explain most of the factors influencing data generated by Simpocalypse.	Action plan is presented, but may be unorganized, not fully understood, or otherwise poorly designed. Student may struggle to explain various factors influencing data. When demonstrating simulation, data may contradict claims.	Action plan is presented, but student demonstrates a general lack of understanding. Student is not able to answer basic questions concerning their disease or modeling of COVID-19 in Simpocalypse.	Action plan is not presented in any form.
<b>Contribution to Class Consensus Building</b>	Student takes an active role in group consensus building by offering suggestions, presenting arguments, compromising when necessary and showing respect for others' opinions. Student regularly contributes to the group conversation.	Student engages meaningfully in group consensus building by offering suggestions, presenting arguments, compromising when necessary and showing respect for others' opinions.	Student is somewhat passive in engaging with others in the class. Student contributes periodically to the discussion, but offers little to build the class consensus.	Student offers very little to the class as they strive to build a mitigation plan for COVID-19. Student may be confrontational and/or uncooperative.	Student does not contribute meaningfully to the group conversation.
				Total Score:    /24	Grade: _____
				Percentage: _____	
	Comments:				