



## Scientific Inquiry using Scientific Practices Timeline

Assignment	What to do	What to hand in	Due Date
Select a Topic	Choose a topic that you and your team would like to investigate.	The topic that your team plans to investigate and why your team chose it.	
Identify a Problem	Choose a problem that faces your community and conforms to the topic your team has chosen.	The problem you have chosen to investigate as well as why solving that problem will help your community and which parts of your community will be directly impacted.	
Research the Problem	Use at least ten reputable sources to research the problem your team has chosen to investigate.	A bibliography containing at least ten sources that contain important information about the problem your team is investigating. With this list you should also submit the information you found in these sources in paragraph format.	
Hypothesis	Propose a solution to the problem your team is investigating and make a prediction about how it will solve the problem.	A written prediction about how your proposed solution will solve the problem your team is investigating and how you hope to test your hypothesis.	
Design an experiment	Design an experiment to test your hypothesis.	A step-by-step procedure for the experiment you are planning to conduct. This should include all of the safety precautions your team must take, all of the materials you will need and the control group, independent variables and dependent variables. This must be approved before you conduct your experiment.	
Conduct the experiment	Follow the procedure that has been turned in and approved by the teacher.	All of the data collected during the experiment. Any photos or videos taken during the experiment.	
Analyze your data	Use the data your team collected to determine if your hypothesis was correct.	An explanation of what your data reveals about your proposed solution to the problem. Also include any possible sources of error and how they could have affects your results. Include data tables, charts and/or graphs.	
Construct a Conclusion	Use your analyzed data to construct a conclusion demonstrating whether your data supports or refutes your hypothesis.	A written conclusion that explains how and why your data supports or refutes your hypothesis. Describe what you would do if you wanted to retest or further test your hypothesis.	
Identify the benefit to the community	Explain how your experiments and data help solve your problem and benefit your community and describe next steps for further research/experimentation and how you have or how you could implement your solution in the future.	A written explanation of the benefit to the community of your proposed solution including the next steps your team would take for further research and how you would implement your solution.	