

<b>Task Background</b>	
<b>Domain &amp; Area:</b> Science - Nature of Science and Engineering	
<p><b>MN Standard Adult High School Diploma Social Studies Competencies</b>  <b>Area 1: Nature of Science and Engineering</b></p> <ul style="list-style-type: none"> <li>Show an understanding of the scientific method, using empirical criteria, logical argument and skeptical review.</li> </ul>	
<p><b>Task Description:</b> The purpose of this task is to provide you an opportunity to demonstrate competency in a fundamental concept in science: scientific process/inquiry. In this task, you will</p> <ul style="list-style-type: none"> <li>select an experiment to analyze</li> <li>evaluate the conclusion of the experiment</li> <li>cite the original experiment when appropriate</li> <li>construct a new hypothesis based on the results of the original experiment</li> <li>design a follow-up study using the scientific method</li> </ul> <p>Follow the directions for each activity carefully. The expectation is that you will complete the activities of this task mostly on your own. You may use resources such as dictionaries and research online as needed to complete the activities. Your teacher can provide feedback for revisions of your work as needed.</p>	
<b>Activities</b>	
<p><b>Title:</b> Analyze an Experiment and Formulate a New Hypothesis</p>	<p><b>Materials:</b> To complete this activity, you will need to go to the link below to choose an experiment that interests you from the Experiments Collection. You will also need the document “<i>Scientific Inquiry Process Summary</i>.” Complete the “Analyze Data,” “Make Observations,” and “Formulate New Hypothesis” sections.</p> <ul style="list-style-type: none"> <li>Science News for Students Website Experiments Collection:  <a href="https://www.sciencenewsforstudents.org/collections/experiments">https://www.sciencenewsforstudents.org/collections/experiments</a></li> </ul>
<p><b>Title:</b> Design an Experiment</p>	<p><b>Materials:</b> To complete this activity, you will design an experiment to test your new hypothesis in the section “Design an Experiment” section of the “<i>Scientific Inquiry Process Summary</i>” document. Make sure to</p>

**Student-Facing Document**

	answer all the questions provided in that section completely. Check the “ <i>Nature of Science and Engineering Task Rubric</i> ” handout to see how your experiment design will be evaluated.	
Checklist		
Activities	Date	Teacher Initials
<b>1. Analyze an Experiment and Formulate a New Hypothesis</b>  a. Choose an experiment from the website provided.  b. Complete an analysis of the experiment.  c. Formulate a new hypothesis and explain how it relates to the experiment you analyzed.  <b>2. Design a New Experiment</b>  a. Design an experiment that will test your new hypothesis.	 <hr/> <hr/> <hr/>  <hr/>	 <hr/> <hr/> <hr/>  <hr/>