

## ELEMENTARY RUBRIC

<b>Interview &amp; Display (up to 15 points)</b> An excellent student will be able to explain in detail their research and experiment designs as well as interpret charts and graphs. Students should be able to explain the significance of their findings, usefulness and new questions/experiments that may arise from their research.	<b>15</b>
<b>The Question or Problem Statement (up to 12 points)</b> An excellent question will be interesting, creative, worded scientifically and relevant to the world today. You should also include your thought process and preliminary research on why you selected the question.	<b>12</b>
<b>Hypothesis or Design Goal (up to 12 points)</b> An excellent hypothesis will lead on from the question, be tightly focused and build on existing knowledge and be testable. (An Engineering/Invention project will have a design goal instead of hypothesis). A hypothesis should be a concise statement.	<b>12</b>
<b>Research (up to 12 points)</b> Excellent students will undertake research to help them shape their question and hypothesis and to put their work into a relevant, real-world context. (Engineering/Invention show research how new product will meet a need better than an existing product, how it fills a need)	<b>12</b>
<b>Experiment or Design of Prototype (up to 20 points)</b> Excellent students will demonstrate that they have used good experimental techniques and describe their experiment clearly and in detail. Multiple trials are an expectation in good experimentation. (Engineering/Invention should show schematics, assembly information, refining of design, prototyping)	<b>20</b>
<b>Data/Observations (up to 12 points)</b> -Excellent data will be relevant, sufficient to support a conclusion and should be recorded accurately and precisely, and be presented clearly. -Excellent observations will describe patterns or trends supported by the data. (Engineering/Invention project show evidence of testing, applications of invention)	<b>12</b>
<b>Conclusion (up to 12 points)</b> An excellent conclusion will explain how the experiment answers the question or why it fails to do so and whether or not it supports the hypothesis.	<b>12</b>
<b>Works Cited Document (up to 5 points)</b> Excellent students will acknowledge and provide clear references for sources of information that they have consulted and/or referenced and acknowledge any assistance received (e.g. to find equipment and materials, to stay safe or to use unfamiliar equipment or techniques).	<b>5</b>
<b>Total</b>	<b>100</b>