

# MVHS STEM Fair Scoring Rubric

Name of Scientist(s): \_\_\_\_\_

Title of Project: \_\_\_\_\_

## Part I

| Section  | Score | Comments |
|--|-------|----------|
| <p><b>Interview &amp; Display</b> (up to 15 points)<br/>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.</p> |       |          |
| <p><b>The Question</b> (up to 10 points)<br/>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.</p>   |       |          |
| <p><b>Hypothesis</b> (up to 10 points)<br/>An excellent hypothesis will lead on from the question, be tightly focused and build on existing knowledge and be testable. (An Engineering/Computer Science project will have a design goal instead of hypothesis). A hypothesis should be a concise statement.</p>                                      |       |          |
| <p><b>Research</b> (up to 10 points)<br/>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/Computer Science projects show research how new product will meet a need better than an existing product, how it fills a need)</p>      |       |          |
| <p><b>Experiment</b> (up to 30 points)<br/>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/Computer Science projects should</p>   |       |          |

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| show schematics, assembly information, refining of design, prototyping)  |  |  |
| <b>Data/Observations</b> (up to 20 points)<br>-Excellent data will be relevant, sufficient to support a conclusion and should be recorded accurately and precisely, and be presented clearly.<br>-Excellent observations will describe patterns or trends supported by the data.<br>(Engineering/Computer Science project show evidence of testing, applications of invention) |  |  |
| <b>Conclusion</b> (up to 5 points)<br>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.   |  |  |

## Part II

|   | 1  | 2  | 3  | 4   |
|---|--|--|--|---|
| <b>Complete Project</b><br>(Either board or packet) | Lacks detail and is messy.                               | Some attention to neatness.                                  | Attention to detail and neatness shown.                    | Attractively presented with exceptional detail.   |
| <b>Effort</b>                                       | Did not attempt to do the assignment.                    | Did assignment but sloppy.                                   | Project done well  | Worked hard, took their time.   |
| <b>Skill and Thoroughness of content</b>            | Little or no content                                     | Minimal content and description is present is various parts. | Project's content is thorough and adequate.                | Projects content exceeds expectations of basic content.                                       |
| <b>Scientific Thought</b>                           | Does not show an understanding of the scientific process | Fails to include all the parts of the scientific process     | Uses scientific process correctly in investigating problem | Goes above and beyond in using the scientific process by taking extra steps for completeness. |

Points from Part I: \_\_\_\_\_

Points from Part II: \_\_\_\_\_

Total Points: \_\_\_\_\_