

BAY AREA SCIENCE AND ENGINEERING FAIR

MERIT JUDGING FORM 2020

NOTE: Merit judges will receive assigned student projects electronically and submit their project scores through a secure link. Every effort will be made to have each project evaluated by 4 experienced merit judges.

Evaluation Criteria Score

Criterion 1 – Scientific thought <i>(PDF files as outlined)</i>	/ 50
Criterion 2 – Abstract	/ 10
Criterion 3 – Display <i>(photo/PDF file as outlined)</i>	/ 10
Criterion 4 – Video <i>(replacing the traditional interview)</i>	/ 20
Criterion 5 – Journal	/ 10
TOTAL Score	/ 100

CRITERIA 1 – SCIENTIFIC THOUGHT

SCIENTIFIC THOUGHT (maximum 50)				
Definition	Level 1 (acceptable)	Level 2 (fair)	Level 3 (good)	Level 4 (excellent)
Experiment Investigation undertaken to test one or more hypotheses.	Duplication and reporting of an experiment to test a previously confirmed hypothesis.	Extension of a known experiment through modification of its procedure, data collection, analysis or application.	A new approach to the design, modification or application of an existing experiment with control of some variables.	A new experimental approach to a research problem in which most of the significant variables are controlled.
Study A collection and analysis of data showing evidence of a correlation, or pattern of scientific interest.	Study and presentation of printed material related to the basic issue.	Study of material collected through compilation of, or expansion of, existing data. The study attempts to address a specific issue.	Study based on new observations and research of a previously studied topic. Appropriate analysis of data and correlations made.	A new approach to the study of a problem which correlates information from a number of sources. The report also offers new insights or solutions to the problem.
Innovation The development and evaluation of models or innovative devices, using approaches from the field of technology or engineering.	Building models or other devices that duplicate existing technology; minimal reporting	Make improvement to an existing technology or use an existing technology for new applications.	Design and build an innovative adaptation of an existing technology for a new application.	Build a novel technology or integrate technologies to form an innovative system that has commercial or human benefit.
Score out of a possible 50 marks.	20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35	25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45	35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50

<p><i>Refer to rubric to determine the level of the project by matching the description with the project.</i></p> <p><i>Select whether the project is either an experiment, study, or innovation.</i></p> <p><u>Consider the following</u></p> <p>Is information included in their submissions:</p> <ul style="list-style-type: none"> ○ Introduction/Background and purpose ○ Hypothesis/question ○ Materials and methods ○ Data and results ○ Conclusions/Analysis ○ Acknowledgments ○ References <p><i>Maximum of 20 pages recommended with the option of additional appendices.</i></p>	<p>Level 1 (acceptable)</p> <p>Level 2 (fair)</p> <p>Level 3 (good)</p> <p>Level 4 (excellent)</p> <p>RATING: /50</p>
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CRITERIA 2 – ABSTRACT

<ul style="list-style-type: none">• Does the abstract cover all aspects of the project?• Is the information concise, complete, and accurate?• Is the abstract well written? (grammar, syntax and spelling)	<p>RATING: /10</p>
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CRITERIA 3 – DISPLAY

<ul style="list-style-type: none">• Is workmanship neat and carefully done?• Is lettering clear?• Are colours strong and suitable?• Is the layout complete, logical and self-explanatory?• Is the content clearly and logically presented?• Is the display simple and visually balanced?• Does it capture attention?• Does it have impact?• Is there good balance and use of contrasts?	<p>RATING: /10</p>
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CRITERIA 4 – VIDEO

<ul style="list-style-type: none">• Is the project well explained/ summarized?• Does the student(s) speak about things not included in the abstract and report?	<p>RATING: /20</p>
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CRITERIA 5 – JOURNAL/LOGBOOK

<p>Does the journal / logbook show evidence of:</p> <ul style="list-style-type: none">• Initial brainstorming on possible problems/questions to explore• Planning• Experimental work/ data collection• Analysis of findings <p><i>4 - 5 days of entries recommended</i></p>	<p>RATING: /10</p>
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