BAY AREA SCIENCE AND ENGINEERING FAIR
MERIT JUDGING FORM 2021

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 *(PDF files as outlined)*	/ 50
Criterion 2 – Abstract	/ 10
Criterion 3 – Display *(Power Point or Backboard or Slide Show)*	/ 10
Criterion 4 – Video *(replacing the traditional interview)*	/ 20
Criterion 5 – Journal/Diary	/ 10
Score TOTAL	/ 100

CRITERIA 1 – SCIENTIFIC THOUGHT

Refer to rubric below to determine the level of the project by matching the description with the project.

Select whether the project is either an Experiment, Study, or Innovation. - **Experiment** Investigation undertaken to test one or more hypotheses. **- Study** A collection and analysis of data showing evidence of a correlation, or pattern of scientific interest. **- Innovation** The development and evaluation of models or innovative devices, using approaches from the field of technology or engineering. ***Judges will consider the Full Project Report as well as the overall impression after viewing all files submitted.*** Information included in the formal report : o Introduction/Background and purpose o Hypothesis/question o Materials and methods o Data and results o Conclusions/Analysis o Acknowledgments o References ***Full Project Report – Maximum 25 pages (New for BASEF 2021)*** *Judges will note reports that exceed this page limit when submitting your final marks* ***Optional*** *- additional background information, data, results, surveys and other supporting documents can be included as separate APPENDICES. This is in addition to the 25 page limit of the Project Report.*	**Level 1** (acceptable) **Level 2** (fair) **Level 3** (good) **Level 4** (excellent) ***RATING: /50***

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

CRITERIA 2 – ABSTRACT

• Does the abstract contain all aspects of the project? • Is the information concise, complete, and accurate? • Is the abstract well written? (grammar, syntax and spelling) **Maximum 2 pages.**	***RATING: /10***

CRITERIA 3 – DISPLAY – Backboard or PowerPoint or Slide Show

• Is the content clearly and logically presented? • Does it capture attention? • Does it have impact? • Is there good balance and use of contrasts? • Does it contain visuals as well as text? • Is workmanship neat and carefully done – no spelling or grammatical errors? • Are colours strong and suitable? • Does it summarize all the important facts? • Is the layout complete, logical and self-explanatory?	***RATING: /10***

CRITERIA 4 – VIDEO

• Is the project well explained/ summarized? • Does the student(s) speak about things not included in the abstract and report? • Is the student(s) speaking clearly and slowly so they can be easily understood? **Maximum 8 minutes *(New for BASEF 2021)***	***RATING: /20***

CRITERIA 5 – JOURNAL / PROJECT DIARY

Does the journal/ diary or logbook show evidence of: • Initial brainstorming on possible problems/questions to explore • Planning • How and when the work was done and data collected • Any obstacles and problems encountered ***Optional*** – student(s) may include sample data taken and photos of experiments in progress	***RATING: /10***

Overall Impressions: Please add any comments or impressions that you have about the project, which you found particularly compelling.

Areas for Improvement: Explain how the participants could have scored higher. Your comments may be used to provide feedback to the judging committee and to participants who ask for tips to improve a project.