SCIENCE TALENT SEARCH
SCIENCE TEACHERS' ASSOCIATION of VICTORIA
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JUDGE'S EVALUATION SHEET

OPEN EXPERIMENTAL RESEARCH

FULL NAME OF ENTRANT OR GROUP LEADER
ENTRY CODE SCHOOL CODE
NAME OF PROJECT

Reference Copy

Judging Guideline and Criteria	Very Little or Not Shown	Limited or Satisfactory	Good	Excellent
1. Abstract/Summary is clear and relevant	**0**	**1**		**2**
2. Introduction is relevant to the topic, defines key terms and provides background information	**0**	**1**	**2**	**3**
3. Aim is clear and hypothesis is included	**0**	**1**	**2**	**3**
4. Method and Materials – describes clearly how the experiment was carried out with safety precautions (**Risk Assessment** included), and a complete list of equipment and materials used is given	**0 – 1**	**2**	**3 – 4**	**5 – 6**
5. Experimental Design – is the design logical/innovative, are controls used where appropriate, have sufficient measurements /comparisons been made?	**0**	**1 – 2**	**3 – 4**	**5 – 6**
6. Results/Data appropriate observations are made and use of tables, graphs, diagrams is evident, clearly labelled, correct units used and clearly shows all trends in the data	**0** **1**	**2** **3**	**4** **5**	**6** **7**
7. Thoroughness of Discussion including error analysis – analysis of results and discussion of the implications of the results and observations, problems encountered, possible errors, future investigations and links to the hypothesis and background information	**0** **1**	**2** **3**	**4** **5**	**6** **7**
8. Conclusion is clear and relates to the aim and/or hypothesis	**0 – 1**	**2**	**3**	**4**
9. Acknowledgements and References – multiple sources of information and assistance has been acknowledged and referenced	**0**	**1**	**2**	**3**
10. Presentation and Neatness – overall presentation in terms of use of correct format, neatness etc	**0**	**1 – 2**	**3**	**4 – 5**
11. Originality and Creativity – is the topic original or simply a tried experiment**.**	**0 – 1**	**2**	**3**	**4**

SUITABLE FOR STS PUBLICITY ☐ YES ☐ NO **TOTAL SCORE** _____ **/50**

COMMENTS TO CO-ORDINATOR:

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Name …… Signed ……

OPEN EXPERIMENTAL RESEARCH SECTION *MARKING CRITERIA*

1. Clarity & Relevance of Abstract or Summary	(1) The abstract is not clearly written and has minimal relevance to the research.	(2) The abstract is clearly written and is a concise summary of the research	.	
2. Completeness & Relevance of Introduction	(1-2) The introduction has minimal science content relevant to the research and outlines few reasons as to why the research was done.	(3) The introduction outlines the science ideas relevant to the research and clearly states the reasons as to why the research was done.		
3. Clarity of aim including hypothesis	(1) The aim of the experiment is not clear and no hypothesis is suggested	(2) Aim of the experiment is stated with a hypothesis but either the aim or the hypothesis is not clear or relevant.	(3) Aim of the experiment is clearly stated with a hypothesis	
4. Presentation of Method & Materials	(0-1) Method is confusing and incomplete, with poorly labelled and/or inappropriate diagrams and insufficient information to replicate the experiment by a third party. Safety and risk assessment are poorly observed.	(2) Method is incomplete with poorly labelled and/or inappropriate diagrams. A third party would have difficulty replicating the experiment on the information provided. Some safety and risk assessment considerations given.	(3-4) Method is clearly written, with appropriate labelled diagrams and information so that the experiment could be replicated by a third person. All materials used are recorded. Safety considerations and risk assessments are well described.	(5-6) Method is clearly written in point form, third person and past tense, with appropriate labelled diagrams and information so that the experiment could be easily replicated. Safety considerations and risk assessments are extensive and thorough. All materials used are recorded.
5. Experimental Design	(1-2) Four or more aspects of the experimental design are missing or poorly implemented.	(3-4) Two or more aspects of the experimental design are missing or poorly implemented.	(5-6) The experiment tests the hypothesis and • includes steps to minimise errors including • repetition to reduce random errors. • Includes experimental controls and • the control or minimisation of variables so that only one variable is examined at a time. • The experiment utilises appropriate means of collecting results.	
6. presentation of results / data	(1-2) Results are not presented in an easily understood format and not clearly labelled. Values are recorded with inappropriate significant figures and subjective results have been used. Little or no trends in the data shown.	(3-4) Results have been presented in an appropriate manner but there is a few significant aspects missing, including: clear headings, using appropriate units, values are recorded with inappropriate significant figures given the measuring device and/or subjective results have not been used. Results does not show clear trends in the data.	(5-7) Data is recorded in table format, were appropriate, in an easy to follow format with clear headings and using appropriate units. Values are recorded with appropriate significant figures given the measuring devise. Subjective results have not been used. Trends in the data are clearly shown.	
7. Thoroughness of Discussion including error analysis	(1) The discussion includes a statement of the results with minimal analysis of its significance or validity. The examination of errors or how the experiment could be improved is missing.	(2-4) The discussion has a brief analysis of the results including any implications of the results. A statement of whether the hypothesis was supported or not is included. Suggestions have been made on how the experiment could be improved to obtain more meaningful results and/or less error. A brief investigation of the problems encountered and how they were dealt with is included.	(5-7) The discussion includes a detailed analysis of the results including the implications and validity of the results. A statement of whether the hypothesis was supported or not is included. Relevant suggestions have been made on how the experiment could be improved to obtain more meaningful results and less error. A thorough investigation of the problems encountered and how they were dealt with is included.	
8. Clarity of conclusion	(1-2) Conclusion is a restatement of the results or that the aim has been met.	(3-4) Conclusion clearly & concisely outlines the significant findings of the research as related to the aim &/or hypothesis.		
9. Completeness of acknowledgments and references	(1) References do not follow the guidelines outlined by STS (pg 23 of handbook)	(2) References follow guidelines outlined by STS (pg 23 of handbook)	(3) References from multiple sources: eg. web, books, journals	
10. Presentation & neatness	(1-2) Not presented in a manila folder and/or does contain accessories. Not presented in a well laid out format and the report is difficult to follow and read.	(3) Presented stapled together in a manila folder with no accessories. Not presented in a well laid out format or the report is difficult to follow and/or read.	(4-5) Presented stapled together in a manila folder with no accessories. Presented in a well laid out format that is easy to follow and read.	
11. Originality and creativity	(1) A common experiment obtaining predictable results.	(2) Some attempt has been made to present the photos well.	(3-4) An original experiment or an interesting variation on an experiment and/or a creative method for obtaining data.	