

## Judging Rubric    Discovery / Grades 10-12

Undertake an investigation to test a scientific hypothesis by the experimental method. At least one independent variable is manipulated; other variables are controlled.

Project	Students
Judge's name (please print)	Judge's signature

*PARTS A-H CAN BE DONE BEFORE THE DAY OF THE FAIR BY GOING ONLINE AND VIEWING THE PROJECT BOARD AND CAN BE REFINED AFTER DISCUSSION WITH THE STUDENTS.*

*ASSIGN A SCORE FOR EACH SECTION AND THEN ADD THE SCORE TO THE TOTALS TABLE.*

PART A: QUESTION / HYPOTHESIS – 5%	SCORE /5
Assign a score between 1 and 5	
Do the student(s) have a clear, testable question or hypothesis?	

PART B: ORIGINAL CREATIVITY – 5%	SCORE / 5
Assign a score between 1 and 5	
<ul style="list-style-type: none"> <li>• Is the project an original idea?</li> <li>• Do they show resourcefulness and creativity in the design, use of equipment, construction and analysis?</li> </ul> <p><i>OR</i></p> <ul style="list-style-type: none"> <li>• Does it simply repeat an experiment or study found in books or on the internet?</li> </ul>	

<b>PART C: SCIENTIFIC THOUGHT / METHOD</b>	
Assign a score between 1 and 10	<b>SCORE /10</b>
Experiment <ul style="list-style-type: none"> <li>• Is the method sufficient to test the hypothesis?</li> <li>• Are the significant variables identified and controlled?</li> <li>• Have they used appropriate replications?</li> </ul>	
Study <ul style="list-style-type: none"> <li>• Have they gathered and interpreted information from a variety of publications and from systematic observations, which may include surveys?</li> <li>• Have they included a detailed description of the procedures and/or techniques applied to gather and/or analyse the data (e.g. interviewing, observational fieldwork, constant comparative method, content analysis)?</li> </ul>	
<b>PART D: SCIENTIFIC THOUGHT / RESULTS</b>	
Assign a score between 1 and 10	<b>SCORE /10</b>
Experiment <ul style="list-style-type: none"> <li>• Have they presented all the relevant data and used appropriate tables and/or graphs?</li> <li>• Is the data analysis thorough and complete?</li> </ul>	
Study <ul style="list-style-type: none"> <li>• Have they summarized their findings and used appropriate graphs or tables?</li> <li>• Have they provided detailed descriptions of qualitative information?</li> </ul>	
<b>PART E: SCIENTIFIC THOUGHT / CONCLUSIONS</b>	
Assign a score between 1 and 10	<b>SCORE /10</b>
Experiment / Study <ul style="list-style-type: none"> <li>• Do their conclusions match the data?</li> <li>• Have they identified possible sources of error and suggested improvements if they were to repeat the project?</li> <li>• Have they identified next steps if they were going to continue the research?</li> </ul>	
<b>PART F: SCIENTIFIC THOUGHT / REFERENCES</b>	
Assign a score between 1 and 5	<b>SCORE / 5</b>
Experiment / Study <ul style="list-style-type: none"> <li>• Have they used multiple valid sources?</li> </ul>	

<b>PART G: PROJECT BOARD: ABSTRACT / SUMMARY</b>		<b>SCORE / 5</b>
<b>Assign a score between 1 and 5</b>		
Experiment / Study	<ul style="list-style-type: none"> <li>• Is it a clear, concise, and accurate summary of the project?</li> <li>• Does it include the question, methods, results, and conclusion?</li> </ul>	
<b>PART H: PROJECT BOARD: SLIDES</b>		<b>SCORE / 5</b>
<b>Assign a score between 1 and 5</b>		
Experiment / Study	<ul style="list-style-type: none"> <li>• Is there enough information to describe the project and are the slides attractive and easy to follow?</li> </ul>	

*PARTS I-M WILL BE DONE ON THE DAY OF THE FAIR  
ASSIGN A SCORE FOR EACH SECTION AND THEN ADD THE SCORE TO THE TOTALS  
TABLE*

<b>PART I: PRESENTATION 10%</b>		<b>SCORE /10</b>
<b>Assign a score between 1 and 10</b>		
Experiment / Study	<ul style="list-style-type: none"> <li>• Did they clearly outline their reasons for doing the project?</li> <li>• Was their presentation well organized and easy to follow?</li> <li>• Were they well prepared and did they show their enthusiasm and interest in the project?</li> <li>• If there were two students involved in the project, did they both take part in the presentation?</li> <li>• Did they cover important details?</li> </ul>	

<b>PART J: ABILITY TO ANSWER QUESTIONS</b>		<b>SCORE /15</b>
<b>Assign a score between 1 and 15</b>		
Experiment / Study	<ul style="list-style-type: none"> <li>• Did their answers show an understanding of the project (knowing why the methods were used, what the results show, and limitations of their data)?</li> <li>• If there are two students, did they both answer questions?</li> </ul>	

<b>PART K: POSTER</b>		<b>SCORE /15</b>
Assign a score between 1 and 15		
Experiment / Study <ul style="list-style-type: none"> <li>Is the display board well organized and visually appealing?</li> <li>Does it communicate key components of the project (question, methods, results, conclusion)?</li> </ul>		

<b>PART L LAB BOOK 5%</b>		<b>SCORE /5</b>
Assign a score between 1 and 5		
Experiment / Study <ul style="list-style-type: none"> <li>Does the lab book include all qualitative and quantitative data (including the dates gathered) and any calculations?</li> </ul>		

Add Subtotals from each part and add these to get the **total score awarded**

<b>TOTALS</b>			<b>SCORE</b>
<b>PART A</b>	<b>QUESTION / HYPOTHESIS</b>	/5	
<b>PART B</b>	<b>ORIGINAL CREATIVITY</b>	/5	
<b>PART C</b>	<b>SCIENTIFIC THOUGHT / METHOD</b>	/10	
<b>PART D</b>	<b>SCIENTIFIC THOUGHT / RESULTS</b>	/10	
<b>PART E</b>	<b>SCIENTIFIC THOUGHT / CONCLUSIONS</b>	/10	
<b>PART F</b>	<b>SCIENTIFIC THOUGHT / REFERENCES</b>	/5	
<b>PART G</b>	<b>PROJECT BOARD: ABSTRACT / SUMMARY</b>	/5	
<b>PART H</b>	<b>PROJECT BOARD: SLIDES</b>	/5	
<b>PART I</b>	<b>PRESENTATION</b>	/10	
<b>PART J</b>	<b>ABILITY TO ANSWER QUESTIONS</b>	/15	
<b>PART K</b>	<b>POSTER</b>	/15	
<b>PART L</b>	<b>LAB BOOK</b>	/5	
<b>TOTAL</b>		<b>100</b>	

## M: FEEDBACK FOR THE STUDENTS

### Strengths

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### Recommendations

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