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 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% Assign a score between 1 and 5	**SCORE /5**
Do the student(s) have a clear, testable question or hypothesis?	

PART B: ORIGINAL CREATIVITY – 5% Assign a score between 1 and 5	**SCORE / 5**
• Is the project an original idea? • Do they show resourcefulness and creativity in the design, use of equipment, construction and analysis? *OR* • Does it simply repeat an experiment or study found in books or on the internet?	

PART C: SCIENTIFIC THOUGHT / METHOD Assign a score between 1 and 10	**SCORE /10**
Experiment • Is the method sufficient to test the hypothesis? • Are the significant variables identified and controlled? • Have they used appropriate replications?	
Study • Have they gathered and interpreted information from a variety of publications and from systematic observations, which may include surveys? • 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)?	
PART D: SCIENTIFIC THOUGHT / RESULTS **Assign a score between 1 and 10**	**SCORE /10**
Experiment • Have they presented all the relevant data and used appropriate tables and/or graphs? • Is the data analysis thorough and complete?	
Study • Have they summarized their findings and used appropriate graphs or tables? • Have they provided detailed descriptions of qualitative information?	
PART E: SCIENTIFIC THOUGHT / CONCLUSIONS **Assign a score between 1 and 10**	**SCORE /10**
Experiment / Study • Do their conclusions match the data? • Have they identified possible sources of error and suggested improvements if they were to repeat the project? • Have they identified next steps if they were going to continue the research?	
PART F: SCIENTIFIC THOUGHT / REFERENCES **Assign a score between 1 and 5**	**SCORE / 5**
Experiment / Study • Have they used multiple valid sources?	

PART G: PROJECT BOARD: ABSTRACT / SUMMARY **Assign a score between 1 and 5**	**SCORE / 5**
Experiment / Study • Is it a clear, concise, and accurate summary of the project? • Does it include the question, methods, results, and conclusion?	
PART H: PROJECT BOARD: SLIDES **Assign a score between 1 and 5**	**SCORE / 5**
Experiment / Study • Is there enough information to describe the project and are the slides attractive and easy to follow?	

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

PART I: PRESENTATION 10% Assign a score between 1 and 10	**SCORE /10**
Experiment / Study • Did they clearly outline their reasons for doing the project? • Was their presentation well organized and easy to follow? • Did they make eye contact and show their enthusiasm and interest in the project? If there were two students involved in the project, did they both take part in the presentation? • Did they cover important details?	

PART J: ABILITY TO ANSWER QUESTIONS Assign a score between 1 and 15	**SCORE /15**
Experiment / Study • Did their answers show an understanding of the project (knowing why the methods were used, what the results show, and limitations of their data)? • If there are two students, did they both answer questions?	

PART K: POSTER Assign a score between 1 and 15	**SCORE /15**
Experiment / Study • Is the display board well organized and visually appealing? • Does it communicate key components of the project (question, methods, results, conclusion)?	

PART L LAB BOOK 5% Assign a score between 1 and 5	**SCORE /5**
Experiment / Study • Does the lab book include all qualitative and quantitative data (including the dates gathered) and any calculations?	

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

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

M: FEEDBACK FOR THE STUDENTS
Strengths •
Recommendations •