## Judging Rubric Discovery / Grades 6-9

Undertake an investigation to test a scientific hypothesis using 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?

- Is the project an original idea?
- Do they show resourcefulness and creativity in the design, use of equipment, construction and analysis?
OR
- Does the project simply repeat an experiment or study found in books or on the internet?

| PART C: SCIENTIFIC THOUGHT / METHODS |  |
| :---: | :---: |
| Assign a score between 1 and 10 | $\begin{aligned} & \text { SCORE } \\ & \text { /10 } \end{aligned}$ |
| Experiment <br> - Have they identified multiple variables that they are controlling? <br> - Have they chosen a variable to change that is quantifiable? <br> - Have they completed multiple trials? |  |
| Study <br> - Have they gathered information from a variety of reliable sources? <br> - Have they made their own observations through gathering information (e.g. surveys) <br> - Have they explained their procedure to choose sources, gathered this information, and analyzed the data? |  |
| PART D: SCIENTIFIC THOUGHT / RESULTS <br> Assign a score between 1 and 10 | $\begin{aligned} & \text { SCORE } \\ & \text { /10 } \end{aligned}$ |
| Experiment <br> - Have they recorded their results in clear tables and graphs? <br> - Have they completed appropriate data analysis (e.g. calculated the mean)? |  |
| Study <br> - Have they summarized their findings and used appropriate graphs or tables? <br> - Have they provided detailed descriptions of qualitative information? |  |
| PART E: SCIENTIFIC THOUGHT / CONCLUSIONS <br> Assign a score between 1 and 10 | $\begin{aligned} & \text { SCORE } \\ & / 10 \end{aligned}$ |
| Experiment / Study <br> - Do their conclusions match the data? <br> - Have they identified possible sources of error and suggested improvements if they were to repeat the project? <br> - Have they identified next steps if they were going to continue the research? |  |
| PART F: SCIENTIFIC THOUGHT / REFERENCES <br> Assign a score between 1 and 5 | $\begin{aligned} & \text { SCORE } \\ & / 5 \end{aligned}$ |
| Experiment / Study <br> - Have they used multiple valid sources? |  |

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
SCORE
Assign a score between 1 and 5
/ 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 <br> - Did the student(s) clearly outline their reasons for doing the project? <br> - Was their presentation well organized and easy to follow? <br> - Did they make eye contact and show their enthusiasm and interest in the <br> project? If there were two students involved in the project, did they both <br> 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

- Do 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, do 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 results and observations (including dates and names)?

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

| TOTALS <br> PART A | QUESTION / HYPOTHESIS | $/ 5$ | SCORE |
| :--- | :--- | :---: | :---: |
| PART B | ORIGINAL CREATIVITY | $/ 5$ |  |
| PART C | SCIENTIFIC THOUGHT / METHODS | $/ 10$ |  |
| 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

