

ELEMENTARY SCIENCE, MATHEMATICS, ENGINEERING AND INVENTION FAIR

Project #:

Judge Number:

Directions:

Darken circles completely.

Tally total points.

Total Points: _____

RUBRIC FOR JUDGING INVESTIGATION PROJECTS

<p>1. Abstract & Bibliography To what degree does the abstract and bibliography describe the project and support the research?</p>	<p>0 = No Abstract/No documentation of research 1 = Poorly written and one documentation 2 = Poorly written and two documentations of research 3 = Well-written but does not describe all components of the project 4 = Well-written and completely describes the project</p>	<p>① ② ③ ④</p>
<p>2. Problem Statement To what degree is the problem statement new and/or different for a student at this grade level and how well is it written?</p>	<p>0 = No Problem Statement 1 = Incomplete Problem Statement 2 = Poorly written or not in a question form 3 = Complete well-written Problem Statement in question form 4 = Above expectations – detailed, well-written in question form</p>	<p>① ② ③ ④</p>
<p>3. Hypothesis To what degree is this a testable prediction?</p>	<p>0 = No hypothesis 1 = Incomplete hypothesis 2 = Complete hypothesis, but not completely testable 3 = Hypothesis is well-written and testable 4 = Hypothesis is above expectations – detailed, well-written, testable</p>	<p>① ② ③ ④</p>
<p>4. Procedures - Numbered step by step - Sentences begin with verbs - Quantities to measure are listed in metric units</p>	<p>0 = No overall procedural plan to confirm hypothesis 1 = Partial procedural plan to confirm hypothesis 2 = Sufficient procedural plan to confirm hypothesis 3 = Well-written plan, numbered step by step, sentences beginning with verbs 4 = Well-written as above and detailed including repeatability and specified measurements of materials used in experiment</p>	<p>① ② ③ ④</p>
<p>5. How well are all variables recognized? -Test (independent/manipulated) -Outcome (dependent/responding) -Control (if applicable) -Constants</p>	<p>0 = No variables or constants are recognized 1 = Some variables or some constants are recognized 2 = All variables are recognized, but not all constants and controls (if applicable) or vice versa 3 = All variables & constants and controls (if applicable) are recognized 4 = All variables & constants and controls (if applicable) are clearly and appropriately recognized</p>	<p>① ② ③ ④</p>
<p>6. Materials and Equipment Were the items: - listed in column form - equipment specifically named - metric units are used</p>	<p>0 = No materials identified or used 1 = Materials not specifically identified and/or used properly 2 = Materials specifically identified but used improperly 3 = Materials specifically identified in column form and used properly 4 = Materials specifically identified in column form & metric units used properly</p>	<p>① ② ③ ④</p>
<p>7. Results To what degree have the results been interpreted?</p>	<p>0 = No written narrative interpretation of data 1 = Partial written narrative interpretation of data 2 = Correct written narrative interpretation of data 3 = Comprehensive narrative interpretation of data including averaging 4 = Comprehensive and significant interpretation of data above expectations</p>	<p>① ② ③ ④</p>
<p>8. Conclusion To what degree are the conclusions recognized and interpreted? Including: - the purpose of the investigation - hypothesis supported/not supported - the major findings</p>	<p>0 = No problem statement or interpretation of data support for hypothesis identified 1 = Incomplete problem statement or interpretation of data support for hypothesis 2 = Correct/complete conclusion/interpretation of data support for hypothesis 3 = Well-written conclusion/interpretation of data support for hypothesis 4 = Well-written conclusion/interpretation of data support for hypothesis with major findings and possible explanations for them</p>	<p>① ② ③ ④</p>
<p>9. Application To what degree are the applications recognized and interpreted? Including: -Improvements to the investigation - Use of the findings - New question(s) to be investigated</p>	<p>0 = No recommendations, applications, or new question recognized 1 = Incomplete or vague recommendations, applications, or new question recognized 2 = Apparent recommendations, applications, or new question recognized 3 = Recommendations, applications, and new question clearly recognized 4 = Significant well-written recommendations, applications, and new question recognized</p>	<p>① ② ③ ④</p>
<p>10. Display Attributes: - free standing - correct grammar/ spelling - clear and legible - attractive visual display</p>	<p>0 = Unsatisfactory quality of display - more than three attributes are missing 1 = Poor quality of display - only two or three attributes are missing 2 = Average quality- only one attribute missing with minor errors and of fair quality 3 = Good quality – all attributes present and with few if any minor errors 4= Superior display – all attributes present and of exemplary quality</p>	<p>① ② ③ ④</p>
<p>11. Oral Presentation or Interview -How clear, well prepared and organized is the presentation? -How complete is the student's understanding of the experimental work?</p>	<p>0 = Poor presentation; cannot answer questions 1 = Poor presentation; partially answers questions 2 = Fair presentation; adequately answers most questions 3 = Good presentation; precisely answers most questions 4 = Exemplary presentation and knowledge; precisely answers all questions</p>	<p>① ② ③ ④</p>