

| | SCORE = 5 PERFECT SCORE FIRST PLACE | SCORE = 4 FIRST PLACE | SCORE = 3 SECOND PLACE | SCORE = 2 THIRD PLACE | SCORE = 1 THIRD PLACE |
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| SCIENTIFIC THOUGHT | <ul style="list-style-type: none"> <input type="checkbox"/> Presenter has a single, formal hypothesis. <input type="checkbox"/> The presenter can identify AND explain the basic scientific concepts. <input type="checkbox"/> The presenter used a unique idea or twist to formulate the experiment. | <ul style="list-style-type: none"> <input type="checkbox"/> Presenter has a single, formal hypothesis. <input type="checkbox"/> The presenter can identify AND explain the basic scientific concepts. <input type="checkbox"/> The experimental design is limited to work dealing with the hypothesis. | <ul style="list-style-type: none"> <input type="checkbox"/> Presenter has a single, formal hypothesis. <input type="checkbox"/> The presenter can identify the basic scientific concepts by name but may have difficulty in explaining the concepts. <input type="checkbox"/> The experimental design is limited to work dealing with the hypothesis. | <ul style="list-style-type: none"> <input type="checkbox"/> Presenter attempts to frame a hypothesis or has multiple hypotheses. <input type="checkbox"/> The student has difficulty identifying the basic scientific concepts and is unable to explain the concepts. <input type="checkbox"/> The experimental design permits the presenter's work to occur in areas not dealing with the hypothesis. | <ul style="list-style-type: none"> <input type="checkbox"/> Presenter does not have a hypothesis. <input type="checkbox"/> Presenter is unable to identify the scientific concepts applying to the experiment. <input type="checkbox"/> No evidence of experimental design. |
| EXPERIMENTAL METHODS | <ul style="list-style-type: none"> <input type="checkbox"/> Presenter did his/her own experiment. <input type="checkbox"/> Presenter used all equipment in a safe and accepted manner AND possibly a unique way. <input type="checkbox"/> Presenter had both a control group and experimental group(s). <input type="checkbox"/> Control and experimental variables clearly identified. <input type="checkbox"/> Sample sizes were larger than one would expect of the presenter's grade level. <input type="checkbox"/> Measurements were metric | <ul style="list-style-type: none"> <input type="checkbox"/> Presenter did his/her own experiment. <input type="checkbox"/> Presenter conducted the experiment in a safe and accepted manner. <input type="checkbox"/> Presenter had both a control group and experimental group(s). <input type="checkbox"/> Control and experimental variables clearly identified. <input type="checkbox"/> Sample sizes were well selected. <input type="checkbox"/> Measurements were metric | <ul style="list-style-type: none"> <input type="checkbox"/> Presenter did his/her own experiment. <input type="checkbox"/> Presenter conducted the experiment in a safe and accepted manner. <input type="checkbox"/> Presenter didn't use controls as effectively as possible. <input type="checkbox"/> Control and/or experimental variables identified with some errors. <input type="checkbox"/> Sample sizes were not quite acceptable or large enough. <input type="checkbox"/> Measurements were metric | <ul style="list-style-type: none"> <input type="checkbox"/> Presenter did not do his/her own experiment. <input type="checkbox"/> Presenter did not use equipment properly or safely in all instances. <input type="checkbox"/> The experiment was not done safely. <input type="checkbox"/> No experimental controls were evident. <input type="checkbox"/> Control and/or experimental variables not identified <input type="checkbox"/> Sample sizes were not consistent. <input type="checkbox"/> Measurements were metric | <ul style="list-style-type: none"> <input type="checkbox"/> Presenter did not do his/her own experiment. <input type="checkbox"/> Presenter did not observe any safety practices. <input type="checkbox"/> Experiment samples sizes were too small. <input type="checkbox"/> No experimental controls were evident. <input type="checkbox"/> Variables were not identified or were absent <input type="checkbox"/> The experiment was not done safely. <input type="checkbox"/> Measurements were not metric |

CHECK WITH THE JUDGING COMMITTEE IN THE JUDGES' TALLY ROOM BEFORE DISQUALIFYING THE PRESENTATION.

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| ANALYTICAL APPROACH | <ul style="list-style-type: none"> <input type="checkbox"/> Conclusions drawn by the presenter are valid for the data gathered. <input type="checkbox"/> Presenter can describe the errors in the data and explain why they occurred. <input type="checkbox"/> Presenter can describe weaknesses in the experimental design and how to correct the weaknesses. <input type="checkbox"/> Presenter knows what areas for further research exist on the current topic. <input type="checkbox"/> Presenter could explain why he or she did this particular experiment. | <ul style="list-style-type: none"> <input type="checkbox"/> Conclusions drawn by the presenter are valid for the data gathered. <input type="checkbox"/> Presenter can describe the errors in the data. <input type="checkbox"/> Presenter can describe weaknesses in the experimental design. <input type="checkbox"/> Presenter can describe possible avenues for further research or application. <input type="checkbox"/> Presenter could explain why he or she did this particular experiment. | <ul style="list-style-type: none"> <input type="checkbox"/> Conclusions drawn by the presenter are valid for the data gathered. <input type="checkbox"/> Presenter appears to be aware that data may have some errors. <input type="checkbox"/> Presenter cannot describe avenues for further research <input type="checkbox"/> Presenter doesn't see a reason to do the research. | <ul style="list-style-type: none"> <input type="checkbox"/> Conclusions are not valid for the data gathered. <input type="checkbox"/> Presenter does not see any errors in the data that exist. <input type="checkbox"/> Presenter cannot describe avenues for further research. | <ul style="list-style-type: none"> <input type="checkbox"/> Presenter has intentionally twisted the data to arrive at the experimental conclusions. <input type="checkbox"/> Presenter appears totally unaware of the need for analysis. <input type="checkbox"/> Presenter cannot describe avenues for further research. |
| PRESENTATION | <ul style="list-style-type: none"> <input type="checkbox"/> Presentation was clear. <input type="checkbox"/> Transparencies were very well thought out and to the point. <input type="checkbox"/> Presenter was knowledgeable and self-confident. <input type="checkbox"/> Presenter RARELY looked at notes. <input type="checkbox"/> Presenter's answers to the judge's questions indicated an exceptional understanding of the research topic. | <ul style="list-style-type: none"> <input type="checkbox"/> Presentation was clear. <input type="checkbox"/> Transparencies were understandable and enhanced the presentation. <input type="checkbox"/> Presenter spoke clearly. <input type="checkbox"/> Presenter referred to notes but didn't read notes. <input type="checkbox"/> Presenter could answer questions to the satisfaction of the judges. | <ul style="list-style-type: none"> <input type="checkbox"/> Presentation was clear. <input type="checkbox"/> Transparencies were understandable. <input type="checkbox"/> Presenter spoke clearly. <input type="checkbox"/> Presenter referred to notes but didn't read notes. <input type="checkbox"/> Presenter could answer most of the questions to the satisfaction of the judges. | <ul style="list-style-type: none"> <input type="checkbox"/> Presenter was unsure of the research and his or her work. <input type="checkbox"/> Transparencies were difficult to read. <input type="checkbox"/> Presenter read most of the presentation from the note cards. <input type="checkbox"/> Presenter could answer a few questions. <input type="checkbox"/> | <ul style="list-style-type: none"> <input type="checkbox"/> Presenter was totally disorganized. <input type="checkbox"/> Transparencies were either absent or used without apparent reason. <input type="checkbox"/> Presenter was unable to answer any questions. <input type="checkbox"/> Presentation exceeds 10 minutes or is too short to be effective. |
| JUDGE'S OPINION | <ul style="list-style-type: none"> <input type="checkbox"/> The project is appropriate for a student beyond the presenter's current grade level, ability to produce quality work, procedures, depth of understanding and creativity. <input type="checkbox"/> The presenter overcame handicaps or unusual circumstances to complete the project. | <ul style="list-style-type: none"> <input type="checkbox"/> The project is appropriate for a student at the presenter's current grade level, ability to produce quality work, procedures, depth of understanding and creativity. | <ul style="list-style-type: none"> <input type="checkbox"/> The project is appropriate for a student slightly below the presenter's current grade level, ability to produce quality work, procedures, depth of understanding and creativity. | <ul style="list-style-type: none"> <input type="checkbox"/> The project is appropriate for a student well below the presenter's current grade level, ability to produce quality work, procedures, depth of understanding and creativity. | <ul style="list-style-type: none"> <input type="checkbox"/> The entire project is inappropriate. |

Rubric for judging SCIENCE projects.