# Rubric for the Assessment of Class Presentations

**Student Name(s) _________________________________________  Topic/Title ______________________________________**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content</strong></td>
<td>☐ No understanding of the topic was evident.</td>
<td>☐ Basic understanding of the topic was evident.</td>
<td>☐ Good understanding of the topic.</td>
<td>☐ Excellent depth of understanding is evident.</td>
</tr>
<tr>
<td></td>
<td>☐ Student(s) did not relate the material presented to their own experiences.</td>
<td>☐ Knowledge is thorough and detailed.</td>
<td>☐ Student(s) attempted to relate the material presented to their own experiences.</td>
<td>☐ Student(s) presented material that was additional to what was required. Excellent research.</td>
</tr>
<tr>
<td><strong>Interest and Enthusiasm</strong></td>
<td>☐ Little interest and enthusiasm for the topic was displayed in the presentation.</td>
<td>☐ Some interest and enthusiasm was evident in the presentation.</td>
<td>☐ The presenters were clearly interested in their topic and their enthusiasm was quite evident.</td>
<td>☐ The interest and enthusiasm of the presenter(s) were exceptional.</td>
</tr>
<tr>
<td></td>
<td>☐ The class was not very interested or enthusiastic.</td>
<td>☐ The class was noticeably attentive during the presentation.</td>
<td>☐ The class was keenly attentive during the presentation.</td>
<td>☐ The class was very attentive during the presentation.</td>
</tr>
<tr>
<td><strong>Clarity and Organization of Material</strong></td>
<td>☐ The information presented was confusing.</td>
<td>☐ The information was somewhat vague.</td>
<td>☐ The information was clearly presented.</td>
<td>☐ All information was relevant and clearly presented.</td>
</tr>
<tr>
<td></td>
<td>☐ There was some organization.</td>
<td>☐ The presentation was well organized.</td>
<td>☐ The presentation was extremely well organized.</td>
<td>☐ Main points were emphasized and reinforced with appropriate examples.</td>
</tr>
<tr>
<td><strong>Use of Visual Aids</strong></td>
<td>☐ Visual aids were not used.</td>
<td>☐ Visual aids were used.</td>
<td>☐ Visual aids were used.</td>
<td>☐ Strong visual aids were used.</td>
</tr>
<tr>
<td></td>
<td>☐ Visual aids were not well done.</td>
<td>☐ Visual aids were quite well done.</td>
<td>☐ Visual aids were quite well done.</td>
<td>☐ Visual aids were extremely well done with colour, clarity, and care.</td>
</tr>
<tr>
<td></td>
<td>☐ Visual aids used were somewhat relevant to the presentation.</td>
<td>☐ Visual aids were relevant to the presentation.</td>
<td>☐ Visual aids were relevant to the presentation.</td>
<td>☐ Visual aids were designed to emphasize and strengthen the presentation and were successful.</td>
</tr>
</tbody>
</table>

*Teachers are reminded that this rubric would vary with the assignment and format of the presentation.
### Rubric for the Assessment of a Research Project

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Name(s)</td>
<td></td>
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</tr>
<tr>
<td>Topic/Title</td>
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</tr>
<tr>
<td>Source of Information</td>
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<tr>
<td>Information Collected</td>
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</tr>
<tr>
<td>Organization of Material</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Presentation of Material</td>
<td></td>
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</tr>
<tr>
<td>Student(s) used only one source of information.</td>
<td>❑</td>
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</tr>
<tr>
<td>The information collected was not relevant.</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>The information was not organized.</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>The report was handwritten, contrary to established guidelines.</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
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</tr>
<tr>
<td>Student(s) used two sources of information.</td>
<td>❑</td>
<td>❑</td>
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</tr>
<tr>
<td>The information collected was relevant to the topic but was not blended into a cohesive piece.</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>The information was somewhat organized.</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>The report was neatly handwritten.</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>Student(s) used a wide variety of sources in a unique manner.</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>The information collected was relevant to the topic and was carefully organized into a cohesive piece of research.</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>The information was organized and contained recognizable sections.</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>The report was typed.</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>Student(s) used a variety of sources.</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>The information collected was relevant to the topic and was somewhat organized into a cohesive piece.</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>The information was organized.</td>
<td>❑</td>
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</tr>
<tr>
<td>The report contained graphics.</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>The report was typed and appropriately formatted.</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>The report contained relevant graphics.</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
<tr>
<td>The report contained a bibliography that was correctly formatted.</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
<td>❑</td>
</tr>
</tbody>
</table>

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*Appendices • Senior 4 Physics*
Rubric for the Assessment of a Decision-Making Process Activity

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of STSE Issue</td>
<td>Student(s) cannot identify an STSE issue without assistance.</td>
<td>Student(s) have a basic understanding that an issue could have STSE implications, not necessarily differentiating among the four areas.</td>
<td>Student(s) have a good understanding of a connection between an issue and its STSE applications.</td>
<td>Student(s) have excellent depth and sensitivity in connecting an issue with its STSE implications.</td>
</tr>
<tr>
<td>Evaluates Current Research on Issue</td>
<td>Student(s) are able to access a small amount of current research, with no evaluation of that research evident.</td>
<td>Student(s) demonstrate some ability to recognize the positions taken in the research data, with no clear evaluative statements.</td>
<td>Student(s) have secured an array of research, narrow in its scope, but clearly identify the positions taken.</td>
<td>All acquired research of student(s) is current, relevant, and from a variety of perspectives.</td>
</tr>
<tr>
<td>Formulates Possible Options</td>
<td>Student(s) are unable to clearly identify the possible options.</td>
<td>Student(s) can offer at least one feasible option connected to the problem.</td>
<td>Student(s) develop at least two feasible options that are internally consistent, and directly address the problem.</td>
<td>Student(s) display a level of sophistication of feasible options that is beyond expectations.</td>
</tr>
<tr>
<td>Identifies Projected Impacts</td>
<td>Student(s) cannot foresee the possible consequences of the options selected.</td>
<td>Student(s) can offer other options that may be more or less related directly to the problem.</td>
<td>Student(s) recognize that some options will fail.</td>
<td>All options demonstrate a reasonable chance of succeeding at being chosen.</td>
</tr>
<tr>
<td></td>
<td>There appears to be a naïve awareness of consequences.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Teachers are reminded that the above criteria are suggestions only, and will be adapted according to the needs of the assignment. It is preferable if this rubric is modified in consultation with the students, leading to clarity of purpose.*
Rubric for the Assessment of a Decision-Making Process Activity (continued)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selects an Option and Makes a Decision</td>
<td>☐ Student(s) are unable to come to a decision that clearly connects with the problem to be solved.</td>
<td>☐ Student(s) can identify a feasible option, but are faced with the inability to clearly decide on a plan.</td>
<td>☐ Student(s) clearly select an option, decide on a course of action, but others can identify that a better course of action remains untried.</td>
<td>☐ Student(s) collaboratively perform a thorough analysis of all options.</td>
</tr>
<tr>
<td>Implement the Decision</td>
<td>☐ Student(s) are unable to fully implement the decision, but the opportunity to modify it remains.</td>
<td>☐ Student(s) implement the decision with a recognition that not all details are laid out in advance.</td>
<td>☐ Student(s) implement with some visible clarity of purpose.</td>
<td>☐ Student(s) implement a plan with visible clarity of purpose, backed by the research base.</td>
</tr>
<tr>
<td>Identifies and Evaluates Actual Impacts of Decision</td>
<td>☐ Student(s) are unable to clearly recognize more than one possible actual impact.</td>
<td>☐ Student(s) can clearly recognize more than one possible actual impact for the decision taken.</td>
<td>☐ Student(s) are able to recognize and comment upon the actual impacts observed.</td>
<td>☐ Student(s) are able to recognize and comment deeply upon the actual impacts observed, noting unobserved or unique outcomes.</td>
</tr>
<tr>
<td>Reflects on the Decision Making and Implementation of a Plan</td>
<td>☐ Student(s) fail to clearly demonstrate how they plan to proceed with the decision.</td>
<td>☐ Student(s) demonstrate a reluctance to consider a re-evaluation of the plan.</td>
<td>☐ Student(s) recognize how to proceed with a re-evaluation of the problem-solving plan.</td>
<td>☐ Student(s) demonstrate that a higher order synthesis was visible in the reflection process.</td>
</tr>
</tbody>
</table>

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# Lab Report Assessment

**Project Title** _________________________________     **Date** ___________________

**Team Members** ______________________________________________________

<table>
<thead>
<tr>
<th>Area of Interest</th>
<th>Possible Points</th>
<th>Self</th>
<th>Teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Formulates Testable Questions:</strong> Question is testable and focussed with cause-and-effect relationship identified.</td>
<td></td>
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</tr>
<tr>
<td><strong>Formulates a Prediction/Hypothesis:</strong> Independent and dependent variables are identified and the prediction/hypothesis clearly identifies a cause-and-effect relationship between these two variables.</td>
<td></td>
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</tr>
<tr>
<td><strong>Creates a Plan:</strong> All steps are included and clearly described in a logical sequence. All required materials/equipment are identified. Safety considerations are addressed; major intervening variables are controlled.</td>
<td></td>
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</tr>
<tr>
<td><strong>Conducts a Fair Test and Records Observations:</strong> There is evidence of repeated trials and the inclusion of all data. Detailed data are recorded, and appropriate units are used; data are recorded in a clear/well-structured/appropriate format for later reference.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td><strong>Interprets and Evaluates Results:</strong> Patterns/trends/discrepancies are identified. Strengths and weaknesses of approach and potential sources of error are identified. Changes to the original plan are identified and justified.</td>
<td></td>
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</tr>
<tr>
<td><strong>Draws a Conclusion:</strong> Conclusion explains cause-and-effect relationship between dependent and independent variables; alternative explanations are identified; hypothesis is supported or rejected.</td>
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<tr>
<td><strong>Makes Connections:</strong> Potential applications are identified and/or links to area of study are made.</td>
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</tr>
<tr>
<td><strong>Total Points</strong></td>
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</tbody>
</table>
## Observation Checklist—Scientific Inquiry: Conducting a Fair Test

Student Name(s) ____________________________________________  Topic/Title ____________________________________________

*Note: A group of students can be selected as a focus for observation on a given day, and/or one or more of the observational areas can be selected as a focus. The emphasis should be on gathering cumulative information over a period of time.*

<table>
<thead>
<tr>
<th>Names</th>
<th>Safe Work Habits (workspace, handling equipment, goggles, disposal)</th>
<th>Ensuring Accuracy/Reliability (repeating measurements/experiments)</th>
<th>Observing and Recording (carried out during experiment)</th>
<th>Follows a Plan</th>
<th>Evidence of Perseverance and/or Confidence</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>
# Rubric for Student Presentation

**Student Name(s) ________________________________________  Topic/Title __________________________________________**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Performance Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Organization</strong></td>
<td></td>
</tr>
<tr>
<td>Level 1</td>
<td>Presentation shows poor organization and lack of preparation.</td>
</tr>
<tr>
<td>Level 2</td>
<td>Presentation shows signs of organization but some parts do not seem to fit the topic.</td>
</tr>
<tr>
<td>Level 3</td>
<td>Presentation is organized, logical, and interesting.</td>
</tr>
<tr>
<td>Level 4</td>
<td>Presentation is very well organized, logical, interesting, and lively.</td>
</tr>
<tr>
<td><strong>Preparation</strong></td>
<td></td>
</tr>
<tr>
<td>Level 1</td>
<td>Some student preparation is shown.</td>
</tr>
<tr>
<td>Level 2</td>
<td>A fair amount of student preparation is shown.</td>
</tr>
<tr>
<td>Level 3</td>
<td>An adequate amount of student preparation is shown.</td>
</tr>
<tr>
<td>Level 4</td>
<td>A great deal of student preparation is shown.</td>
</tr>
<tr>
<td><strong>Content</strong></td>
<td></td>
</tr>
<tr>
<td>Level 1</td>
<td>Small amount of material presented is related to the topic.</td>
</tr>
<tr>
<td>Level 2</td>
<td>Some material presented is not related to the topic.</td>
</tr>
<tr>
<td>Level 3</td>
<td>Almost all material presented is related to the topic.</td>
</tr>
<tr>
<td>Level 4</td>
<td>All material in the presentation is related to the topic.</td>
</tr>
<tr>
<td><strong>Language</strong></td>
<td></td>
</tr>
<tr>
<td>Level 1</td>
<td>Language used is hard to follow and understand.</td>
</tr>
<tr>
<td>Level 2</td>
<td>Some language used is hard to follow and understand.</td>
</tr>
<tr>
<td>Level 3</td>
<td>Most language used is easy to follow and understand.</td>
</tr>
<tr>
<td>Level 4</td>
<td>Language used is well chosen and easy to follow and understand.</td>
</tr>
<tr>
<td><strong>Format</strong></td>
<td></td>
</tr>
<tr>
<td>Level 1</td>
<td>Poor use of aids and support materials (diagrams, overheads, maps, pictures); does not support the topic.</td>
</tr>
<tr>
<td>Level 2</td>
<td>Adequate use of aids and support materials; most support the topic.</td>
</tr>
<tr>
<td>Level 3</td>
<td>Good use of aids and support materials; almost all support the topic.</td>
</tr>
<tr>
<td>Level 4</td>
<td>Excellent use of aids and support materials; all aids support the topic.</td>
</tr>
<tr>
<td><strong>Delivery</strong></td>
<td></td>
</tr>
<tr>
<td>Level 1</td>
<td>Many words are unclear; voice is monotonous; spoken too quickly or slowly; no pausing for emphasis; voice is too low to be heard easily.</td>
</tr>
<tr>
<td>Level 2</td>
<td>Some words are unclear; voice is somewhat varied; spoken too quickly at times; some pausing for emphasis; voice is sometimes too low to be heard easily.</td>
</tr>
<tr>
<td>Level 3</td>
<td>Most words are clear; voice is often varied, interesting, generally spoken at the correct speed; frequent pausing for emphasis; voice is loud enough to be heard easily.</td>
</tr>
<tr>
<td>Level 4</td>
<td>Words are clear; voice is frequently varied, interesting, generally spoken at the correct speed; effective pausing for emphasis; voice is loud enough to be heard easily.</td>
</tr>
<tr>
<td><strong>Audience</strong></td>
<td></td>
</tr>
<tr>
<td>Level 1</td>
<td>Audience is not involved or interested.</td>
</tr>
<tr>
<td>Level 2</td>
<td>Audience is somewhat involved, sometimes interested.</td>
</tr>
<tr>
<td>Level 3</td>
<td>Audience is involved and interested.</td>
</tr>
<tr>
<td>Level 4</td>
<td>Audience is very involved and interested.</td>
</tr>
</tbody>
</table>

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## Rubric for Research Skills

<table>
<thead>
<tr>
<th>Research Skills</th>
<th>Performance Levels</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Level 1</td>
<td>Level 2</td>
<td>Level 3</td>
<td>Level 4</td>
</tr>
<tr>
<td>Ability to formulate questions to identify problems for research purposes</td>
<td>Shows limited ability</td>
<td>Shows some ability</td>
<td>Shows general ability</td>
<td>Shows consistent and thorough ability</td>
</tr>
<tr>
<td>Ability to locate relevant primary and secondary sources of information</td>
<td>Unable to locate</td>
<td>Somewhat able to locate</td>
<td>Generally able to locate</td>
<td>Always or almost always able to locate</td>
</tr>
<tr>
<td>Ability to locate and record relevant information from a variety of sources</td>
<td>Unable to locate and record</td>
<td>Somewhat able to locate and record</td>
<td>Generally able to locate and record</td>
<td>Always or almost always able to locate and record</td>
</tr>
<tr>
<td>Ability to organize information related to identified problem(s)</td>
<td>Shows limited ability</td>
<td>Shows some ability</td>
<td>Shows general ability</td>
<td>Shows consistent and thorough ability</td>
</tr>
<tr>
<td>Ability to analyze and synthesize information related to identified problems</td>
<td>Shows limited ability</td>
<td>Shows some ability</td>
<td>Shows general ability</td>
<td>Shows consistent and thorough ability</td>
</tr>
<tr>
<td>Ability to communicate results of inquiries using a variety of appropriate presentation forms (oral, media, written, graphic, pictorial, other)</td>
<td>Unable to communicate</td>
<td>Somewhat able to communicate</td>
<td>Generally able to communicate</td>
<td>Always or almost always able to communicate</td>
</tr>
</tbody>
</table>

*Teachers are reminded that this rubric would vary with the assignment and format of the presentation.*