# Scientific Concepts Rubric

Students will recognize scientific evidence and apply the basic principles of scientific inquiry.

**Student Learning Outcomes:**

1) Apply the methods of scientific inquiry

2) Analyze evidence using scientific methods

## Definitions:

- **Accomplished (4)**
- **Proficient (3)**
- **Developing (2)**
- **Beginning (1)**
- **Null (0)**

<table>
<thead>
<tr>
<th>SLO1: Apply the methods of scientific inquiry.</th>
<th>Accomplished (4)</th>
<th>Proficient (3)</th>
<th>Developing (2)</th>
<th>Beginning (1)</th>
<th>Null (0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Proposes one or more solutions/hypotheses/research methodologies that indicate a thorough comprehension of the problem.</td>
<td>□ Proposes one or more solutions/hypotheses/research methodologies that indicate comprehension of the problem.</td>
<td>□ Offers one solution/hypothesis/research methodology that is “off the shelf” rather than individually designed to address the specific contextual factors of the problem.</td>
<td>□ Solutions/hypotheses/research methodologies are sensitive to contextual factors as well as one of the following: ethical, logical, and cultural dimensions of the problem.</td>
<td>□ Solutions/hypotheses/research methodologies are not sensitive to contextual factors and do not address the ethical, logical, or cultural dimensions of the problem.</td>
<td>□ Offers a solution/hypothesis/research methodology that is difficult to evaluate because it is vague or only indirectly addresses the problem.</td>
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<th>SLO2: Analyze evidence using scientific methods.</th>
<th>Accomplished (4)</th>
<th>Proficient (3)</th>
<th>Developing (2)</th>
<th>Beginning (1)</th>
<th>Null (0)</th>
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<td>□ Organizes and synthesizes evidence to reveal insightful patterns, differences or similarities related to focus.</td>
<td>□ Organizes and synthesizes evidence to reveal important patterns, differences or similarities related to focus.</td>
<td>□ Organizes evidence, but the organization is not effective in revealing important patterns, differences, or similarities.</td>
<td>□ Evaluation of solution/s is brief and lacks depth. It does include the following considerations: history of the problem, reviews logic/reasoning, examines feasibility of solution/s, and weighs impact of solution/s.</td>
<td>□ Evaluation is superficial and lacks depth. It does include the following considerations: history of the problem, reviews logic/reasoning, examines feasibility of solution/s and weighs impact of solution/s.</td>
<td>□ Lists evidence, but it is not organized and/or is unrelated to focus.</td>
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<td>□ Evaluation of solutions is thorough and includes all of the following considerations: history of the problem/issue reviews logic/reasoning, examines feasibility of solution/s, and weighs the impact of solution/s.</td>
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- **Lists evidence, but it is not organized and/or is unrelated to focus.**
- **Evaluation is superficial and lacks depth. It does include the following considerations: history of the problem, reviews logic/reasoning, examines feasibility of solution/s and weighs impact of solution/s.**
• Accomplished: Completed, done, effected, highly skilled
• Proficient: Undergoing development, growing, evolving
• Developing: In the process of becoming, becoming more prominent
• Beginning: Exhibiting a marked lack of competence
• Null: no evidence detected

Working Draft endorsed 6/1/15 Core Curriculum Committee