

|                      | Exemplary (4)   | Proficient (3)   | Progressing (2)   | Beginner (1)  | Points |
|----------------------|---|--|---|---|--------|
| Invention<br>Process | <ul> <li>Student effectively<br/>articulates all of the<br/>following:         <ul> <li>Identification of the<br/>problem and solution<br/>through the invention<br/>through creative and<br/>critical thinking.</li> <li>Brainstorming process<br/>and generation of<br/>original ideas.</li> <li>Research performed<br/>with significant time<br/>and effort.</li> <li>Intention of how the<br/>invention works and<br/>why they chose the<br/>materials they did to<br/>execute the invention.</li> <li>Explanation of the<br/>testing and refining<br/>process and what<br/>changes were made and<br/>why (iterations of the<br/>invention).</li> </ul> </li> </ul> | <ul> <li>Student articulates<br/>most of the following:         <ul> <li>Identification of the<br/>problem and solution<br/>through the invention<br/>through creative and/or<br/>critical thinking.</li> <li>Brainstorming process<br/>and generation of<br/>original ideas.</li> <li>Research performed<br/>with some time and<br/>effort.</li> <li>Intention of how the<br/>invention works and<br/>why they chose the<br/>materials they did to<br/>execute the invention.</li> <li>Explanation of the<br/>testing and refining<br/>process and what<br/>changes were made and<br/>why (iterations of the<br/>invention).</li> </ul> </li> </ul> | <ul> <li>Student mentions at least<br/>one of the following:         <ul> <li>Identification of the<br/>problem and solution<br/>through the invention<br/>through creative or critical<br/>thinking.</li> <li>Brainstorming process<br/>and generation of original<br/>ideas.</li> <li>Research performed with<br/>little time and effort.</li> <li>Intention of how the<br/>invention works and why<br/>they chose the materials<br/>they did to execute the<br/>invention.</li> <li>Explanation of the testing<br/>and refining process and<br/>what changes were made<br/>and why (iterations of the<br/>invention).</li> </ul> </li> </ul> | <ul> <li>Student does not<br/>articulate any aspect of<br/>the invention process.</li> <li>Student does not report<br/>on research performed<br/>or testing and refining<br/>completed.</li> <li>Student does not<br/>explain how the<br/>invention works or what<br/>materials were used in<br/>building the invention.</li> </ul> | /      |
| Invention<br>Impact  | • Student thoroughly<br>discusses market potential<br>of the invention and<br>assesses the scope  | <ul> <li>Student discusses market<br/>potential of the invention<br/>and/or assesses the scope<br/>research done to</li> </ul>   | <ul> <li>Student briefly mentions<br/>market potential of the<br/>invention or assesses the<br/>scope research done to</li> </ul>   | <ul> <li>Student does not discuss<br/>market potential of the<br/>invention or assess the<br/>scope research done to</li> </ul>   |        |

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|---------------|--|--|---|---|---|
|               | research done to                           | determine the likelihood                     | determine the likelihood of                       | determine the likelihood                        | / |
|               | determine the likelihood                   | of people using the                          | people using the invention.                       | of people using the                             | 4 |
|               | of people using the                        | invention.                                   | <ul> <li>Student briefly summarizes</li> </ul>    | invention.                                      | 4 |
|               | invention.                                 | <ul> <li>Student summarizes why a</li> </ul> | why a consumer should                             | <ul> <li>Student does not include</li> </ul>    |   |
|               | <ul> <li>Student effectively</li> </ul>    | consumer should buy/use                      | buy/use the invention; how                        | any reasons why their                           |   |
|               | articulates why a                          | the invention; how the                       | the product or service will                       | invention may be valuable                       |   |
|               | consumer should buy/use                    | product or service will add                  | add value or better solve the                     | to a user or as a solution to                   |   |
|               | the invention; how the                     | value or better solve the                    | problem than similar                              | the identified problem.                         |   |
|               | product or service will add                | problem than similar                         | offerings.  | <ul> <li>If applicable, student does</li> </ul> |   |
|               | value or better solve the                  | offerings.                                   | <ul> <li>If applicable, student states</li> </ul> | not address the social                          |   |
|               | problem than similar                       | <ul> <li>If applicable, student</li> </ul>   | the social impact of their                        | impact of their invention.                      |   |
|               | offerings.                                 | states the social impact of                  | invention.  | <ul> <li>Student does not</li> </ul>            |   |
|               | <ul> <li>If applicable, student</li> </ul> | their invention.                             | <ul> <li>Student does not</li> </ul>              | demonstrate that their                          |   |
|               | addresses the social                       | <ul> <li>Student demonstrates</li> </ul>     | demonstrate that their                            | invention is unique and                         |   |
|               | impact of their invention.                 | that their invention is                      | invention is unique and                           | original and does not                           |   |
|               | <ul> <li>Student demonstrates</li> </ul>   | unique and original and                      | original and/or mention                           | mention similar offerings.                      |   |
|               | that their invention is                    | mentions similar offerings                   | similar offerings.                                |   |   |
|               | unique and original,                       | but does not highlight how                   |   |   |   |
|               | mentioning similar                         | their invention differs.                     |   |   |   |
|               | offerings and specifically                 |  |   |   |   |
|               | highlights how their                       |  |   |   |   |
|               | invention differs.                         |  |   |   |   |
| Inventor      | <ul> <li>Student includes the</li> </ul>   | • Student includes some of                   | <ul> <li>Student includes at least one</li> </ul> | • Student does not include                      |   |
| Communication | required information:                      | the required information:                    | element of the required                           | any of the required                             |   |
| communication | name/s, grades/s, school                   | name/s, grades/s, school                     | information: name/s,                              | information: name/s,                            |   |
|               | name, city or town, state                  | name, city or town, state                    | grades/s, school name, city                       | grades/s, school name,                          | / |
|               | <ul> <li>Presentation is</li> </ul>        | <ul> <li>Presentation is</li> </ul>          | or town, state                                    | city or town, state                             | 4 |
|               | informative and precise                    | informative and                              | <ul> <li>Presentation is somewhat</li> </ul>      | <ul> <li>Presentation is not</li> </ul>         | - |
|               | and appropriate for the                    | appropriate for the                          | informative or is                                 | informative and                                 |   |
|               | inventor's grade level and                 | inventor's grade level and                   | inappropriate for the                             | inappropriate for the                           |   |
|               | in the allotted time                       | in the allotted time                         | inventor's grade level and in                     | inventor's grade level and                      |   |
|               | <ul> <li>Student communicates</li> </ul>   | <ul> <li>Student communicates</li> </ul>     | the allotted time                                 | in the allotted time                            |   |
|               | the challenges they                        | the challenges they                          | <ul> <li>Student does not</li> </ul>              | <ul> <li>Student does not</li> </ul>            |   |
|               | encountered while                          | encountered while                            | communicate the challenges                        | communicate the                                 |   |
|               | completing the project                     | completing the project,                      | they encountered while                            | challenges they                                 |   |

| and  | how these challenges | but does not talk about  | completing the project. | encountered while       |  |
|------|----------------------|--------------------------|-------------------------|-------------------------|--|
| were | e addressed.         | how they were addressed. |                         | completing the project. |  |