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| **CRITERIA** | **UNSATISFACTORY**  **(Below Performance Standards)** | **PROFICIENT**  **(Minimal Criteria)** | **ADVANCED**  **(Demonstrates Exceptional Performance)** |
| **Collaboration** **(10 points)** | **This portion is determined by your peer evaluation*.*** | | |
| **Creativity/ Innovation****(10 points)** | * **Does not show a distinct style, use ingenuity, or explain the innovation process, or does not show a personal touch when shaping ideas into a product appropriate for the purpose (i.e. uses something you found, not something you designed)** * **Shows no evidence of reflection or revision** * **Carton is not interesting or not functional.** | * **Demonstrates a distinct style, uses ingenuity, explains the innovation process, and shows a personal touch when shaping ideas into a product appropriate for the purpose (i.e. you designed it and are not using someone else’s design)** * **Responds to failure by reflecting on the process** * **Carton is interesting yet functional** | **In addition to meeting the PROFICIENT criteria …**   * **Carton is of professional quality and needs no improvement. There are few to no improvements that could be made to the Carton or the Machine design** * **Critical thought has been shown in the development of the carton and machine design (as is evident through answering questions during presentation)** |
| **0 - - -2 - - - 3 - - - 4 - - - 5** | **6 - - - - 7- - - - 8 - - - - 9** | **10** |
| **Critical Thinking**  **(10 points)** | * **Does not address the problem or does not find appropriate information to address it** * **Student does not filter information based on its usefulness, accuracy, or credibility** * **Does not distinguish between fact and opinion or acknowledge bias** * **Does not use fact based evidence** | * **Identifies the information needed to address the challenge** * **Thoroughly assesses the quality of information with respect to usefulness, accuracy, and credibility;** * **Distinguishes fact vs. opinion and recognizes bias** * **Supports claims and conclusions with fact-based evidence** | **In addition to meeting the PROFICIENT criteria …**   * **Student is able to create new ideas based on changing circumstances, input or environment.** * **The student can differentiate between correlation and cause and effect** |
| **0 - - -2 - - - 3 - - - 4 - - - 5** | **6 - - - - 7- - - - 8 - - - - 9** | **10** |
| **Communication** (10 points) | * **Does not ask and answer grade-level appropriate questions to demonstrate conceptual understanding and knowledge** * **Does not present information, arguments, and supporting evidence clearly, concisely, and logically** * **Communicates verbally, non-verbally, and in writing in a way that is inappropriate for the purpose, task, and audience** | * **Accurately and confidently asks and answers questions to demonstrate conceptual understanding and knowledge** * **Presents information, arguments, and supporting evidence clearly, concisely, and logically** * **Communicates verbally, non-verbally, and in writing in a way that is appropriate for the purpose, task, and audience** | **In addition to meeting the PROFICIENT criteria …**   * **Communicates insightfully with consistent awareness of audience and purpose.** * **Provides a variety of well-chosen details, quotations or examples to support claims.** * **Student was enthusiastic about his/her message and actively sought to engage the audience in his/her belief** * **Ideas expressed flow in a coherent sequence during the presentation** |
| **0 - - -2 - - - 3 - - - 4 - - - 5** | **6 - - - - 7- - - - 8 - - - - 9** | **10** |

**Content Rubric (60 Points)**

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| **Carton Design Project**  **Document 1** | **Includes Surface area for all surfaces of the carton**  **(6 points)** | **Surface area for all surfaces of the carton is correct**  **(2 points)** | **Design (flat net) includes all needed dimensions (with units of measure) for the net and tabs**  **(4 points)** | **Includes Volume for all 3D shapes involved in design**  **(6 points)** | **Volume is correct**  **(2 points)** |
| **Includes area for tabs**  **(6 points)** | **Area for tabs is correct**  **(2 points)** | **Includes total (sides and tabs) surface area**  **(6 points)** | **Total Surface area is correct**  **(2 points)** | **All work for finding the surface area and volume is organized and easy to follow.**  **(4 points)** |
| **Carton Prototype** | **Project included a complete prototype of the carton**  **(5 points)** | **Prototype has sharp corners, is completely folded, glued, and has high quality workmanship in its construction.**  **(5 points)** | **Prototype includes the design for all printing and information on the sides of the carton.**  **(5 points)** | **There are no grammar or spelling errors on the carton.**  **(5 point)** | **Carton takes into account how it will have milk put in and how people will get milk out.**  **(5 points)** |