| Advanced Design Applications  Learning Cycle 1 Manufacturing Unit 4  **File 1.5 Consumers Smart Phone Accessory Design Brief Engineering Design Process Rubric** | | | |
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| **Category** | **Below Target** | **At Target** | **Above Target** |
| **Define Problem** | Rephrases the problem with limited clarity. | Develops a problem statement that includes the who, what, when, and how the problem will be addressed. Recorded in the Engineering Folio or EDJ. | Develops a problem statement that is clearly and precisely stated. The problem statement includes the who, what, when, and how the problem will be addressed. Recorded in the Engineering Folio or EDJ. |
| **Brainstorm Possible Solutions** | Contributes fewer than two or implausible ideas. | Contributes at least two plausible ideas, which are recorded in the Engineering Folio or EDJ. | Contributes at least three plausible ideas, which are expanded upon to show understanding of the concept. All notes are recorded in the Engineering Folio or EDJ. |
| **Research Ideas/ Explore Possibilities** | Contributes ideas, but without documented research. Produces incomplete sketches. | Contributes at least two additional plausible ideas and includes documented research. Produces accurate conceptual models to show the design concepts. All notes are recorded in the Engineering Folio or EDJ. | Contributes at least three additional plausible ideas and includes clearly documented research. Produces accurate conceptual models to show the design concepts with annotated sketches. All notes are recorded in the Engineering Folio or EDJ. |
| **Specify Constraints and Identify Criteria** | Does not identify the criteria and/or fails to specify constraints. | Clearly identifies the criteria and specifies the constraints listed in the design specifications. All notes are recorded in the Engineering Folio or EDJ. | Clearly identifies the criteria and specifies the constraints that are listed in the design specifications and some that are not but pertain to their suggested design. All notes are recorded in the Engineering Folio or EDJ. |
| **Consider Alternative Solutions** | Inadequate analysis of a variety of possible solutions. | Satisfactorily analyzes a variety of possible solutions, based on research and the relationship of those designs to the criteria and constraints. All notes are recorded in the Engineering Folio or EDJ. | Clearly did not enter the research phase with a preconceived idea of the final design. Thoroughly analyzes a variety of possible solutions, based on research and the relationship of those designs to the criteria and constraints. All notes are recorded in the Engineering Folio or EDJ. |