

# Discover Manufacturing Design Challenge

<b>CRITERIA</b>	<b>LEVEL 4 (16-20 points)</b>	<b>LEVEL 3 (11-15 points)</b>	<b>LEVEL 2 (6-10 points)</b>	<b>LEVEL 1 (0-5 points)</b>
<b>Focus on Topic (content):</b> THEME: Manufacturing is about making things...something new or something improved; both start with an idea. We challenge you to think; use your imagination...no limits.	There is one clear, well-focused topic. Main idea stands out and is supported by detailed information.	Main idea is clear, but the supporting information is general.	Main idea is somewhat clear, but there is a need for more supporting information.	The main idea is not clear. There is a seemingly random collection of information.
<b>Introduction and Sequencing (organization):</b>	The introduction is inviting, states the main topic, and previews the structure of the paper and incorporates the design. Details are placed in a logical order and the way they are presented effectively references the design.	The introduction clearly states the main topic and previews the structure of the paper and incorporates the design, but it is not particularly inviting to the reader. Details are placed in a logical order, but the way they are presented sometimes makes the writing less interesting and sometimes is confusing when referring to the design.	The introduction states the main topic, but it does not adequately preview the structure of the paper or incorporate the design nor is it particularly inviting to the reader. Some details are not in a logical or expected order, and are distracting when referring to the design.	There is no clear introduction of the main topic or structure of the paper or incorporation of the design. Many details are not in a logical or expected order. There is little sense that the writing is organized or appropriate for the design.
<b>Creativity and Originality:</b> Manufacturing starts with an idea; what is yours?	Design includes a unique idea depicting a solution to a real world problem.	Design includes a unique idea.	Design includes an idea, but lacks originality and may have imitated someone else's plan.	Design is finished but provides no evidence of creativity or originality.
<b>Concept Understanding:</b> The design must depict what you learned and wrote about in your essay. Use research to produce a written essay and design a creative solution to a real world problem.	Design was obviously planned and created to depict an idea related to manufacturing.	Design was created to depict idea presented in essay.	Design was created to show a manufacturing idea but it is unclear how the design relates to the essay.	Design was created but does not depict the idea presented in the essay. Entire project is unclear as to relation to manufacturing.

**NOTES:**

- ◆ All four categories need be to evaluated for each design package.
- ◆ The essay must be no less than 500 and no more than 750 words and must double-spaced typewritten.
- ◆ The design entry must be on 8-1/2"x11" paper.
- ◆ For high school students, the design and essay need to be ready for presentation to a manufacturing company.