The Pride Problem
Solving Method

Documenting the Process

Title:
Create a title for the challenge

Problem:
Step 1: “P”

What problem do I have to solve?
(Without going into a lot of detail, explain what is that you are asked to do? Answer the question in one sentence only.)

What are the limitations to solving the problem? (What “hurdles” are there: materials, size limitations, tools, safety, due date?)

Research:
Step 2: “R”

Helps you find related information, existing solutions and give you “ideas” for solving your challenge. Questions may be given that are designed to point you in the right direction of appropriate research.

The more “ideas” and strategies you find related to your challenge the easier it will be to find a solution.

Ideas:
Step 3: “I”
Decision and Doing:
Step 4: “D”

Comparison
• Choose an idea
• Compare ideas by discussing the pros and cons of each.

Working Drawing
• "blueprint" plan of your design
• neat, accurate, includes dimensions and material labels
• may be asked to be completed to scale on graph paper
• Take your time!!

Construct Solution
• Building your design
• Let the fun begin

Evaluation:
Step 5: “E”
Requires you to test your prototype to see if it works and evaluate its performance.
May be asked a series of questions related to your solution and the testing.

Rubric for Challenge Report:

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report Format</td>
<td>Lab report is accurately followed, easy to follow, neat, and includes headings and subheadings to visually organize the material.</td>
<td>Lab report is followed and uses headings and subheadings to visually organize the material.</td>
<td>Lab report is nearly written or typed, but does not follow assigned format. Some headings and subheadings are missing.</td>
<td>Lab report is not acceptable, it may appear sloppy with cross-outs, is incomplete with multiple errors and/or bears and gizzlies.</td>
</tr>
<tr>
<td>Report Components</td>
<td>All required elements are present and accurately completed.</td>
<td>All required elements are present.</td>
<td>Most components are present but some are missing some important details within.</td>
<td>Several required elements are missing or incomplete.</td>
</tr>
<tr>
<td>Sketches and Drawings</td>
<td>All thumbnail sketches, refined sketches, and drawings are included. Ideas are neat and clearly communicated and working drawings are accurately drawn and labelled.</td>
<td>All required sketching and drawings are included. Drawings are neat and labelled accurately.</td>
<td>Most sketches and drawings are included. Some do not communicate ideas clearly and are missing labels.</td>
<td>Many required sketches and drawings are missing or do not clearly communicate ideas and are missing labels.</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Evaluation of prototype clearly communicates that you have tested and accurately assessed your prototype. You have included recommendations for improvements and commented on positive features of your design.</td>
<td>Evaluation describes the information learned from testing your prototype and illustrates what you have learned through the design process.</td>
<td>Evaluation is brief and does not clearly describe the results from testing your prototype. Facts are incomplete and little effort has been made to make recommendations for improvement to your design.</td>
<td>Evaluation is incomplete.</td>
</tr>
</tbody>
</table>