Name:
Due Date:

College & Career Awareness
Technology and Engineering, Skilled Technical Science Pathway
Design Process
Cycle: Interdependence

Overview: Engineering is the business of studying everything around us so we can create designs to make our world better. Sometimes things that are designed and engineered create problems such as pollution and waste. However, most designed and engineered products have helped people live better, healthier, happier lives. Engineers follow rules to make sure they don't waste time or money and so that they can remain safe. The rules that help engineers turn designs into usable products are called the **Design Process**.

Essential questions: What would you do to improve upon one of the displayed items? How would you try out the solution to make sure it works?

Checklist:

___ Record input, include the steps of the Design Process in your output

___ The item I selected to improve was: _____

Follow the Design Process steps in the table below to see if you can create a better design. Identify the problem & record your solution ideas in the remaining steps.

The Design Process	
Steps	**Write your answer to each step in the Design Process**
1-Identify a Problem (It's not good when….)	
2-Ask why the problem exists.	
3-Come up with a solution to the problem.	
4-What would you do to try out the solution to make sure it works?	

5-Would your idea really work? If it would, write 'Yes' and go to Step 6. If it would not, go back to Step 2 and continue again.	
6-If it would work, how would you share it with others who need that problem solved, too?	

Reverse Engineering is when designers and engineers look at all the different parts of something one at a time to see how it was made. That way it can be studied in detail to see if there is a way to make it even better through the Design Process. Here is an example of a reverse engineered wooden clothespin:

___ Record in your output a paragraph (3-5 complete sentences) describing one way you would change the clothespin. (Shape, color, size, weight, number of pieces, types of material, etc.)