







Name:

Date:

Class:

Engineering Design Report Scoring Rubric

Category / Rating	3	2	1
Criteria and Constraints 	Students identify at least 3 appropriate criteria and constraints given the problem and design challenge.	Students identify 1-2 appropriate criteria and constraints given the problem and design challenge.	Students do not identify criteria and constraints given the problem and design challenge.
Brainstormed Designs 	Students have at least 3 different designs from brainstorming. They provide at least 3 descriptions of the designs and at least 2 reasons for choosing the design and how it satisfies each of the criteria and constraints.	Students have at least 3 designs from brainstorming. They provide less than 3 descriptions of the designs and 1 reason for choosing the design and how it satisfies each of the criteria and constraints.	Students have fewer than 3 designs from brainstorming. They do not describe the designs in the report and do not give reasons for choosing the design or how it satisfies the criteria.
Design Description & Discussion 	Students provide a sketch and a full breakdown of the design. They explain the reasons and role of each part of the water filtration system, including how the different components of the system interact together.	Students provide a sketch and a breakdown of some parts of the water filtration system, but do not explain the purpose for all parts in the system or how the different components of the system interact together.	Students provide a sketch of the water filtration system with labels. Little to no explanation is given for each and no explanation for how the different components of the system interact together.
Results 	Students provide a detailed description of the test and the results. They provide the time it takes for water to pass through the system, the volume of recovered water from the system compared to its beginning volume, and the remaining chlorine in the water.	Students provide most of the information related to their tests. They give an incomplete description of how the test was performed. They list some results such as chlorine remaining, however, leave out one or more details of the results.	Students provide results of the test. They do not provide the description on how the test was performed or details on the water recovered or time it takes for the water to pass through.
Analysis 	Students provide detailed analysis of the test results and give reasons and explanations for various design faults as well as limitations of their design.	Students provide a short analysis of their results, but do not explain the reasoning for the design faults or limitations.	Students do not provide analysis of the results from the experiment or discussion on limitations.
Redesign & Discussion 	Students use their results and analysis to redesign their models thoughtfully and with purpose. Reasoning for changes is provided and well explained.	Students use their results and analysis to redesign their models. Reasoning for changes is not well explained.	Students provide a redesign of their model, but do not explain reasons for changes and do not use analysis of results as reasons for changes.
Total Score [maximum of 18]			

BROUGHT TO YOU BY

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