

Project ID: _____

Judge Initials: _____

Engineering Design Process Rubric

0 = No Evidence 1=Below Average 2= Average 3=Above Average 4= Superior

Challenge/ Problem	Able to describe (in their own words) a practical need or problem to be solved	0	1	2	3	4
Criteria	Able to describe in detail what the prototype requires in order to be successful (ie: waterproof, size, durable)	0	1	2	3	4
Constraints	Able to explain the factors that limit their ability to create a solution to the problem	0	1	2	3	4
Plan	Able to explain why they chose the materials /tools that they chose	0	1	2	3	4
Design	Produces clear sketches/diagrams, including labels /captions that identify components and purpose	0	1	2	3	4
Build	Student provides a clear photo of completed design. This model shows that student followed his/her design when building.	0	1	2	3	4
Test	Student explains how he/she tested prototype and what happened	0	1	2	3	4
Improve/ Modify	Student clearly states at least one aspect of design that could be or was changed to improve the function of the prototype.	0	1	2	3	4
Re-test	Student gives details about how their improvement affected the prototype in additional trials.	0	1	2	3	4
Research	Student provides data about their problem: Why is this product needed and by whom? What has been tried in the past by others? How have designs for this type of problem been improved upon? What were the constraints of other designs? What are the basic science principles relevant to the project? How does this project impact society? Does the student use their own words?	0	1	2	3	4
Bibliography	Number of background sources cited by student	0	1	2	3	4+
Creativity	The idea selected is unique and project demonstrates creativity/imagination.	0	1	2	3	4
Display Board	Information is organized and easy to read. Spelling, grammar, punctuation, and capitalization are correct.	0	1	2	3	4
Journal	Student keeps a daily record of findings and work.	0	1	2	3	4
Oral present- ation	The oral presentation was given in an articulate and concise manner.	0	1	2	3	4
Display	The display is visually appealing.	0	1	2	3	4

Judge Comments: