

Project # \_\_\_\_\_

Name of Student \_\_\_\_\_

Judge # \_\_\_\_\_

**GSHS SEAL OF EXCELLENCE IN STEAM RESEARCH PROJECT RUBRIC**

	Descriptors (Note: Number in ( ) denotes points possible for descriptor)	Your Score
Research Question(s) (15 points)	1) Clear and focused purpose (5)	____ / 5
	2) Identifies contribution to field of study (5)	____ / 5
	3) Testable using scientific methods (5)	____ / 5
Design and Methodology (10 points)	1) Well-designed plan and data collection methods (5)	____ / 5
	2) Variables and controls defined appropriate, and complete (5)	____ / 5
Execution: Data Collection, Analysis, and Interpretation (15 points)	1) Systematic data collection and analysis with sufficient data collected to support interpretation and conclusion (5)	____ / 5
	2) Reproducibility of results (5)	____ / 5
	3) Appropriate application of mathematical and statistical methods (5)	____ / 5
Creativity (5 points)	1) Project demonstrates significant creativity in one or more of the above criteria (5)	____ / 5
Visual of project (PowerPoint, Prezi, Poster board, etc) (20 points)	1) Logical organization of materials (ex. Introduction or Statement of Purpose; Background and/or literature search; Hypothesis; Data; Interpretation of Data; Conclusion; Further Research) (10)	____ / 10
	2) Data tables, graphs, photos, etc are clearly labeled and includes source citations (10)	____ / 10
Presentation & Interview (30 points)	1) Clear, concise, thoughtful responses to questions (5)	____ / 5
	2) Understanding of basic science relevant to project (5)	____ / 5
	3) Understanding interpretation and limitations of results and conclusion (5)	____ / 5
	4) Degree of independence in conducting project (5)	____ / 5

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	5) Recognition of potential impact in science or society (5)	____ / 5
	6) Quality of ideas for future research (5)	____ / 5
Length of presentation (5 points)	Presentation time is 8-10 minutes. Time does not include question & answer session that will follow the presentation. (5)	____ / 5
<b>TOTAL:</b>		____ / 100

Note: A score of 80 or higher denotes a passing score.

### GSHS SEAL OF EXCELLENCE IN STEAM ENGINEERING PROJECT RUBRIC

	Descriptors (Note: Number in ( ) denotes points possible for descriptor)	Your Score
Research Question(s) (15 points)	1) Clear and focused purpose (5)	____ / 5
	2) Identifies contribution to field of study (5)	____ / 5
	3) Testable using scientific methods (5)	____ / 5
Design and Methodology (10 points)	1) Exploration of alternatives to answer a need or a problem (5)	____ / 5
	2) Identification of a solution(5)	____ / 5
Execution: Data Collection, Analysis, and Interpretation (15 points)	1) Prototype demonstrates intended design (5)	____ / 5
	2) Prototype has been tested in multiple conditions / trials (5)	____ / 5
	3) Prototype demonstrates engineering skill or product design skill and completeness (5)	____ / 5
Creativity (5 points)	1) Project demonstrates significant creativity in one or more of the above criteria (5)	____ / 5
Visual of project (PowerPoint, Prezi,	1) Logical organization of materials (ex. Introduction or Statement of Purpose; Background and/or literature search; Hypothesis; Data; Interpretation of Data; Conclusion; Further Research) (10)	____ / 10

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Poster board, etc) (20 points)	2) Data tables, graphs, photos, etc are clearly labeled and includes source citations (10)	____ / 10
Presentation & Interview (30 points)	1) Clear, concise, thoughtful responses to questions (5)	____ / 5
	2) Understanding of basic science and engineering design process relevant to project (5)	____ / 5
	3) Understanding interpretation and limitations of results and conclusion (5)	____ / 5
	4) Degree of independence in conducting project (5)	____ / 5
	5) Recognition of potential impact in science or society (5)	____ / 5
	6) Quality of ideas for future research (5)	____ / 5
Length of presentation (5 points)	1) Presentation time is 8-10 minutes. Time does not include question & answer session that will follow the presentation. (5)	____ / 5
<b>TOTAL:</b>		____ / 100

Note: A score of 80 or higher denotes a passing score.