

NWGA-RSEF Rubric - SY26-27 Proposed Updates → Junior Division

Grades 6–8 (Junior Division) Rubric – 30 Points Total

Science Methods Project (asking "why" to discover knowledge/information)			Engineering Projects (designing, building, and testing a prototype)		
Category	Max Points	Judging Criteria	Category	Max Points	Judging Criteria
Research Question	4 pts	- Clear and focused purpose (1 pt) - Contribution to field of study identified (1 pt) - Research is testable using the scientific method (2 pts)	Research Problem	4 pts	-Clear and focused engineering problem identified (1 pt) -Real-world need or purpose explained (1 pt) - Criteria for success clearly defined (what the solution must do) (1 pt) -Constraints identified (materials, cost, time, size, safety, etc.) (1 pt)
Design & Methodology	4 pts	- Logical, replicable experimental plan (2 pts) - Variables and controls are clearly defined (1 pt) - Methods are appropriate and thorough (1 pt)	Design & Methodology	4 pts	-Logical and intentional design plan (sketches, diagrams, models) (2 pts) -Design decisions are connected to criteria and constraints (1 pt) -Planned testing approach is appropriate and feasible (1 pt)
Execution – Data & Analysis	8 pts	- Systematic data collection (2 pts) - Reproducible methods (1 pt) - Effective use of graphs/tables (2 pts) - Mathematical/statistical methods applied appropriately (2 pts) - Data supports conclusions (1 pt)	Execution - Construction & Testing	8 pts	-Prototype or solution functions as intended (1 pt) - Systematic testing across trials or conditions (2 pts) -Effective use of data tables, charts, or measurements (2 pts)

					-Data is used to evaluate performance against criteria (2 pts) -Results inform conclusions or design improvements (1 pt)
Creativity & Originality	4 pts	- Innovative approach to the problem (2 pts) - Novel topic or interpretation (1 pt) - Unique use of materials or methods (1 pt)	Creativity & Originality	4 pts	- Innovative approach to the problem (2 pts) - Novel topic or interpretation (1 pt) - Unique use of materials or methods (1 pt)
Presentation (Oral)	5 pts	- Confident, clear explanation of the project (2 pts) - Strong grasp of scientific concepts (1 pt) - Student ownership is evident (1 pt) - Professional demeanor (1 pt)	Presentation (Oral)	5 pts	- Confident, clear explanation of the project (2 pts) - Strong grasp of scientific concepts (1 pt) - Student ownership is evident (1 pt) - Professional demeanor (1 pt)
Poster (Visual)	5 pts	- Logical organization (2 pts) - Clear visuals with labels (2 pts) - Proper citation or display of supporting materials (1 pt)	Poster (Visual)	5 pts	- Logical organization (2 pts) - Clear visuals with labels (2 pts) - Proper citation or display of supporting materials (1 pt)

Project Notes for RocketJudge Comments/Feedback:

NWGA-RSEF Rubric - SY26-27 Proposed Updates → Senior Division

Grades 9–12 (Senior Division) Rubric – 100 Points Total					
Science Methods Project (asking "why" to discover knowledge/information)			Engineering Projects (designing, building, and testing a prototype)		
Category	Max Points	Judging Criteria	Category	Max Points	Judging Criteria
Research Question	10 pts	-Clear, focused, and testable question (3 pts) -Significance and relevance to field (3 pts) -Aligned with current scientific inquiry (2 pts) -Feasible within project scope (2 pts)	Research Problem	10 pts	-Description of a practical need or problem to be solved (3 pts) -Definition of criteria for proposed solution (3 pts) -Explanation of constraints (4 pts)
Design & Methodology	15 pts	- Comprehensive and replicable experimental plan (5 pts) - Appropriate controls and variable handling (4 pts) - Methodological rigor evident (4 pts) - Clear rationale/justification for design decisions (2 pts)	Design & Methodology	15 pts	-Exploration of alternatives to answer need or problem (4 pts) -Identification of a solution (4 pts) -Development of a prototype/model (7 pts)
Execution – Data & Analysis	20 pts	- Robust and accurate data collection (5 pts) - Effective use of statistics/math tools (5 pts) - Logical interpretation of results (5 pts) - Conclusions grounded in data (3 pts) - Evidence of experimental repeatability (2 pts)	Execution - Construction & Testing	20 pts	-Prototype demonstrates engineering skill and completeness (8 pts) -Prototype demonstrates intended design (6 pts) -Prototype has been tested in multiple conditions/trials (6 pts)

Creativity & Originality	20 pts	- Novel or unique problem or question (5 pts) - Advanced thinking in design or interpretation (5 pts) - Creative problem solving or resource use (5 pts) - Evidence of intellectual risk-taking (5 pts)	Creativity & Originality	20 pts	- Novel or unique problem or question (5 pts) - Advanced thinking in design or interpretation (5 pts) - Creative problem solving or resource use (5 pts) - Evidence of intellectual risk-taking (5 pts)
Presentation (Oral)	20 pts	- Evidence of intellectual risk-taking (5 pts) - Professional demeanor and confident delivery (5 pts) - Depth of understanding shown (4 pts) - Future directions, application, or societal relevance discussed (3 pts) - Contributions and understanding shown by all team members (if applicable) (3 pts)	Presentation (Oral)	20 pts	- Evidence of intellectual risk-taking (5 pts) - Professional demeanor and confident delivery (5 pts) - Depth of understanding shown (4 pts) - Future directions, application, or societal relevance discussed (3 pts) - Contributions and understanding shown by all team members (if applicable) (3 pts)
Poster (Visual)	15 pts	- Well-structured, visually appealing layout (5 pts) - Clear presentation of methods, data, and findings (4 pts) - Use of legends, citations, and supplemental documentation (3 pts) - Logical flow and readability (3 pts)	Poster (Visual)	15 pts	- Well-structured, visually appealing layout (5 pts) - Clear presentation of methods, data, and findings (4 pts) - Use of legends, citations, and supplemental documentation (3 pts) - Logical flow and readability (3 pts)

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