FINAL JUDING CRITERIA FOR SCIENCE PROJECTS

CRITERIA		POOR	USUAL AVERAGE	GOOD	HIGH	VERY HIGH	EXCELLENT
Research Question			• States purpose of research • Testable using scientific methods		• States a clear and focused purpose of the research • Testable using scientific methods		• States a clear and focused purpose of the research • Testable using scientific methods • Identifies contribution to the field of study
Design and Methodology			• Proposes valid data collection methods • Identifies suitable variables and control parameters		• Proposes well-designed plan and valid data collection methods • Identifies and defines some key variables and control parameters		• Proposes well-designed plan and valid data collection methods • Identifies and defines all key variables and all appropriate control parameters
Execution: Data collection, analysis and interpretation			• Identification of data to be collected and analysed • Application of mathematical and statistical methods		• Systematic identification of data to be collected and analysed • Appropriate application of mathematical and statistical methods • Sufficient amount of data collected to support interpretation and conclusions		• Systematic identification of data to be collected and analysed • Results can be reproduced • Appropriate application of mathematical and statistical methods • Sufficient amount of data collected to support interpretation and conclusions
Creativity			• Project demonstrates some creativity in one or more of the above criteria		• Project demonstrates significant creativity in some of the above criteria		• Project demonstrates significant creativity in all of the above criteria
Presentation	Presentation Materials		• Adequate information about project provided • Use of graphics and legends		• Logical organisation of material • Adequate use of graphics and legends		• Logical organisation of material • Adept use of graphics and legends that convey information with clarity
	Interview		• Thoughtful responses to questions • Displays understanding of basic science relevant to project • Average degree of independence in conducting projects **For team projects:** • Contribution to project and understanding of project are uneven among members		• Clear, concise, thoughtful responses to questions • Displays good understanding of basic science relevant to project • Displays keen understanding of interpretation and limitations of results and conclusions • Moderately high degree of independence in conducting projects **For team projects:** • Every team member has equal contribution and understanding of project		• Clear, concise, thoughtful responses to questions • Displays good understanding of basic science relevant to project • Displays keen understanding of interpretation and limitations of results and conclusions • High degree of independence in conducting projects • Recognition of potential impact in science, society and/or economics • Quality of ideas for further research **For team projects:** • Every team member has equal contribution and understanding of project • Amount of effort put into the project is commensurate with number of team members

FINAL JUDING CRITERIA FOR ENGINEERING PROJECTS

CRITERIA		POOR	USUAL AVERAGE	GOOD	HIGH	VERY HIGH	EXCELLENT
Research Question			• Identification of a practical need or problem to be solved • Defines criteria for proposed solution		• Clear description of a practical need or problem to be solved • Defines criteria for proposed solution		• Clear description of a practical need or problem to be solved • Defines criteria for proposed solution • Provides explanation of constraints
Design and Methodology			• Identification of a solution • Development of a prototype / model		• Exploration of alternatives to answer need or problem • Identification of a solution • Development of a viable prototype/model		• Exploration of alternatives to answer need or problem • Identification of a solution • Development of a viable prototype/model that is innovative
Execution: Data collection, analysis and interpretation			• Prototype demonstrates intended design		• Prototype demonstrates intended design • Prototype demonstrates engineering skill and completeness		• Prototype demonstrates intended design • Prototype has been tested in multiple conditions/trials • Prototype demonstrates engineering skill and completeness
Creativity			• Project demonstrates some creativity in one or more of the above criteria		• Project demonstrates significant creativity in some of the above criteria		• Project demonstrates significant creativity in all of the above criteria
Presentation	Presentation Materials		• Adequate information about project provided • Use of graphics and legends		• Logical organisation of material • Adequate use of graphics and legends		• Logical organisation of material • Adept use of graphics and legends that convey information with clarity
	Interview		• Thoughtful responses to questions • Displays understanding of basic science relevant to project • Average degree of independence in conducting projects **For team projects:** • Contribution to project and understanding of project are uneven among members		• Clear, concise, thoughtful responses to questions • Displays good understanding of basic science relevant to project • Displays keen understanding of interpretation and limitations of results and conclusions • Moderately high degree of independence in conducting projects **For team projects:** • Every team member has equal contribution and understanding of project		• Clear, concise, thoughtful responses to questions • Displays good understanding of basic science relevant to project • Displays keen understanding of interpretation and limitations of results and conclusions • High degree of independence in conducting projects • Recognition of potential impact in science, society and/or economics • Quality of ideas for further research **For team projects:** • Every team member has equal contribution and understanding of project • Amount of effort put into the project is commensurate with number of team members