Simcoe County Regional Science and Technology Fair
Judging Form

Use the rubric on the back of this page to assign a Level (1,2,3, or 4) to Parts A, B and C for the project. You can rank projects at each level as High, Medium, or Low (H, M or L) to help you compare projects of similar quality.This sheet will not be shared with students.

Part A: Scientific Thought

The level achieved in this part should play the largest role in determining the overall placing of student projects.

Notes:

Level (1-4):

Relative ranking (H,M,L):

Part B: Originality and Creativity

Notes:

Level (1-4):

Part C: Communication

Notes:

Level (1-4):

Other notes/feedback (may be shared with students advancing beyond SCRSTF):

Part A: Scientific Thought

Grades 7 - 12

	Experiment Investigation of a scientific hypothesis using experiments.	**Innovation** Development of innovative devices, models, or techniques in technology, engineering or computers.	**Study** Collection and analysis of data to reveal evidence of a fact or situation of scientific interest.
Level 1	☐ this is a known experiment that the student has replicated	☐ model/device was built that duplicates existing technology	☐ existing published material is presented
Level 2	This is a known experiment that has been improved in one or more areas, specifically: ☐ procedure ☐ data gathering ☐ application	☐ improvements to an existing model or device are demonstrated ☐ improvements to the model or device are justified	☐ a specific issue is identified and addressed in the study ☐ there is a modest analysis of existing information
Level 3 projects at this level are eligible for bronze or silver medals	☐ this is an original experiment ☐ experimental variables are identified ☐ some variables are controlled ☐ some appropriate data analysis including graphs and/or simple statistics	☐ an innovative model or device is designed/built OR an existing technology is changed so that it can be used in a new way ☐ the student can identify clear human benefits or economic applications	☐ a study is completed based on observations and literature search And <u>one</u> of the following: ☐ if the study is quantitative: appropriate data analysis is undertaken ☐ if the study is qualitative: description of procedures or techniques is provided
Level 4 projects at this level are eligible for silver or gold medals	☐ this is an original experiment ☐ experimental variables are identified <u>and</u> controlled ☐ data analysis is thorough and includes appropriate statistical analysis ☐ exceptional degree of difficulty	☐ several technologies, inventions, or designs are integrated to construct an innovative technology ☐ an innovative application is developed with obvious human benefit, knowledge advancement, or economic applications ☐ exceptional degree of difficulty	☐ the study correlates information from a variety of peer-reviewed publications and systematic observations ☐ the study reveals significant new information or original solutions to problems ☐ significant variables are identified ☐ an in-depth statistical analysis is undertaken ☐ exceptional degree of difficulty

Part B: Originality and Creativity

Level 1	☐ simple design ☐ little imagination evident ☐ can be found in a book/online
Level 2	☐ simple design ☐ some imagination evident ☐ common resources/equipment ☐ common/current topic
Level 3	☐ design is well thought out ☐ imagination evident ☐ creative use of resources
Level 4	☐ highly original project ☐ resourcefulness and creativity evident in design, use of equipment, construction and/or analysis

Part C: Communication

Level 1	☐ very simple display and presentation ☐ little attention to effective communication ☐ in a pair project, one partner may dominate
Level 2	☐ simple display and/or presentation ☐ some attention to effective communication ☐ in a pair project, one partner may dominate
Level 3	☐ display and presentation demonstrate attention to detail ☐ communication well thought out and executed ☐ equitable participation in a pair project
Level 4	☐ display and oral presentation demonstrate exceed expectation for the age group ☐ visual display is attractive, logical, & well-presented ☐ oral presentation is clear, logical and enthusiastic ☐ bibliography extends beyond web-based articles ☐ equitable and effective participation in a pair project

Part A: Scientific Thought

Grades 4 - 6

	**Experiment** Investigation of a scientific hypothesis using experiments.	**Innovation** Development of innovative devices, models, or techniques in technology, engineering or computers.	**Study** Collection and analysis of data to reveal evidence of a fact or situation of scientific interest.
Level 1	☐ this is a known experiment that the student has replicated	☐ model/device was built that duplicates existing technology; not a working model	☐ existing published material on a common topic is presented with predictable results
Level 2	☐ this is a known experiment, but the student has used multiple experiments or replications to strengthen the study ☐ level of work is strong for the age/grade level	☐ a working model/device was built that duplicates existing technology	☐ a specific issue is identified and addressed in the study ☐ there is a modest analysis of existing information ☐ there is some understanding of the applications
Level 3	This is a known experiment that has been improved in one or more areas, specifically: ☐ procedure ☐ data gathering ☐ application ☐ multiple experiments or replications help to strengthen the study ☐ experimental variables are identified	☐ a working model/device was built that duplicates existing technology ☐ improvements to an existing model or device are demonstrated and justified	☐ a study is completed based on observations and literature search ☐ a specific issue is identified and addressed in the study
Level 4	☐ this is an original experiment ☐ experimental variables are identified and controlled ☐ data analysis is thorough and includes appropriate statistical analysis ☐ degree of difficulty is exceptional for age level	☐ an innovative model or device is designed/built OR an existing technology is changed so that it can be used in a new way ☐ the student can identify clear human benefits or economic applications ☐ degree of difficulty is exceptional	☐ the study correlates information from literature and from observations ☐ the study reveals new information or original solutions to problems ☐ statistical analysis of some variables is undertaken ☐ degree of difficulty is exceptional

Part B: Originality and Creativity

Level 1	☐ simple design ☐ little imagination evident ☐ can be found in a book/online
Level 2	☐ simple design ☐ some imagination evident ☐ common resources/equipment ☐ common/current topic
Level 3	☐ design is well thought out ☐ imagination evident ☐ creative use of resources
Level 4	☐ highly original project ☐ resourcefulness and creativity evident in design, use of equipment, construction and/or analysis

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Level 4	☐ display and oral presentation demonstrate exceed expectation for the age group ☐ visual display is attractive, logical, & well-presented ☐ oral presentation is clear, logical and enthusiastic ☐ bibliography extends beyond web-based articles ☐ equitable and effective participation in a pair project