

CHICAGO PUBLIC SCHOOLS STUDENT SCIENCE FAIR JUDGING RUBRIC FOR EXPERIMENTAL PROJECTS

(A-G) SCIENTIFIC METHOD; Overall Impression of Project (53 point maximum)

A Knowledge Gained	----- 8 or 7 or 6 ----- Exhibits a thorough presentation and /or correct responses to questions. Student has acquired scientific skills.	----- 5 or 4 or 3 ---- Is somewhat familiar with topic area but cannot answer all questions effectively. Demonstrates minimal acquired scientific skills.	----- 2 or 1 or 0 ----- Demonstrates little of no knowledge gained nor scientific skills.	Points Awarded
B Scientific Approach	----- 8 or 7 or 6 ----- Has a well defined problem and uses a logical, orderly method for solving the problem. Problem was solved using scientific principles.	----- 5 or 4 or 3 ----- Has an adequately defined problem OR attempted to follow scientific method, but not both.	----- 2 or 1 or 0 ----- Little or no evidence of scientific method used.	Points Awarded
C Experimental Approach: Variable	----- 8 or 7 or 6 ----- Single variable was tested for each experimental group; all other variables were controlled or accounted for.	----- 5 or 4 or 3 ----- Attempt was made at controlling variables but not all variables were accounted for.	----- 2 or 1 or 0 ----- Variables were not controlled.	Points Awarded
D Experimental Approach: Control Group	----- 8 or 7 or 6 ----- Method was appropriate and effective. A control or comparison group was in evidence.	----- 5 or 4 or 3 ----- Method was inappropriate, but an attempt for control or comparison was made.	----- 2 or 1 or 0 ----- Experimentation was not performed(i.e. , was a demonstration or exhibit). No control group was present.	Points Awarded
E Reliability Of Data	----- 7 or 6 ----- Data collected is numerical and metric, if applicable. Repeated trials provide for more than adequate data. Data is reliable.	----- 5 or 4 or 3 ----- Data collected is numerical and metric, if applicable OR data collected is adequate, but not both.	----- 2 or 1 ----- Little or no data collected.	Points Awarded
F Validity of Conclusion	----- 7 or 6 ----- Conclusion is consistent with data and/or observations. Conclusion is based on data collected.	----- 5 or 4 or 3 ----- Conclusion is present but inconsistent with data.	----- 2 or 1 or 0 ----- No conclusion or no valid conclusion present.	Points Awarded
G Estimating Experimental Error	----- 2 ----- Measurement error affecting the conclusion has been considered.	----- 1 ----- Some measurement error affecting the conclusion has been considered.	----- 0 ----- Experimental error has not been considered.	Points Awarded
H Originality	----- 5 or 4 ----- Demonstrates a novel approach and/or idea. -Highly Creative-	----- 3 or 2 ----- Some creativity and/or originality demonstrated.	----- 1 or 0 ----- No originality demonstrated.	Points Awarded

(I & J) Display: (8 point maximum)

I Information	----- 4 ----- Gives complete explanation of the project. Display includes graphics, charts, or pictures.	----- 3 or 2 ----- Adequate information if present, but not thorough.	----- 1 or 0 ----- Missing pertinent information.	Points Awarded
J Artistic Qualities	----- 4 ----- Backboard is neat, organized, and appealing.	----- 3 or 2 ----- Backboard is neat, but not well organized. Spelling errors are present.	----- 1 or 0 ----- Backboard was carelessly prepared, sloppy.	Points Awarded

(K & L) Oral Presentation: (8 point maximum)

K Presentation Quality	----- 4 ----- Clear presentation; concisely summarizes the project. Information is relevant and pertinent.	----- 3 or 2 ----- Information given is adequate, but presentation is difficult to follow.	----- 1 or 0 ----- Information jumbled, irrelevant; presentation unclear.	Points Awarded
L Dynamics	----- 4 ----- Speaks fluently with good eye contact; polite, dynamic, and interested in their project.	----- 3 or 2 ----- Student was polite and interested in their project. Moderate eye contact, relied heavily on note cards.	----- 1 or 0 ----- No eye contact, read from note cards. Did not seem interested.	Points Awarded

Student(s): _____ **Project Number:** _____

Total of A-L = _____
(Transfer total to other side, top right.)

(M-W) Written Report: (30 point maximum)**POINT TOTAL FROM A-L: _____**

M Abstract	----- 3 ----- Abstract present; contains a summary of the purpose, procedure, and conclusion.	----- 2 or 1 ----- One or two parts of the abstract is/are missing.	----- 0 ----- Abstract is missing.	Points Awarded
N Safety Sheet	----- 2 ----- Safety sheet is present and all safety hazards have been identified.	----- 1 ----- Safety sheet is present, but not all hazards have been identified.	----- 0 ----- Safety sheet is not present.	Points Awarded
O Title Page/Table Of Contents	----- 2 ----- Both are present.	----- 1 ----- One is missing.	----- 0 ----- Both are missing.	Points Awarded
P Purpose and Hypothesis	----- 2 ----- The problem has been defined and a prediction has been made.	----- 1 ----- The problem has been defined, but a prediction has not been made.	----- 0 ----- Neither the problem or a prediction are present.	Points Awarded
Q Review Of The Literature (R. of L.)	-----5 or 4 ----- Review of Literature is thorough, adequately cited within R. of L., and pertinent to topic using APA format.	----- 3 or 2 ----- Review of Literature is adequate and pertinent, but citations are inadequate, and/or did not follow APA format.	----- 1 or 0 ----- Little or no use of citations and /or material is irrelevant to topic.	Points Awarded
R Materials	----- 2 ----- Materials are listed and measurements are in metric, if applicable.	----- 1 ----- Not all materials are listed or measurements are not in metric, where applicable.	----- 0 ----- No materials are listed.	Points Awarded
S Procedure	----- 2 ----- Procedure is easily followed; all steps included.	----- 1 ----- Procedure is present, but not complete or confusing.	----- 0 ----- Procedure is missing.	Points Awarded
T Results	----- 4 or 3 ----- Results are organized in tables or graphs; easily read by someone not familiar with the work. Data is quantitative; explanations are given when needed.	----- 2 or ----- Results are less organized, not quantitative, difficult to understand.	----- 0 ----- Results are not present.	Points Awarded
U Conclusion	----- 3 ----- A concise evaluation and interpretation of the data and/or results; referred to purpose and hypothesis.	----- 2 or ----- Conclusion is present, but is not consistent with data collected.	----- 0 ----- No conclusion present.	Points Awarded
V Reference List	----- 3 ----- Quality and quantity of sources is adequate for topic. Sources listed are cited within R. of L. using APA format.	----- 2 or 1 ----- Quality and quantify of sources is less than adequate, or sources nor all cited within R. of L., or APA format was not followed.	----- 0 ----- No literature cited present.	Points Awarded
W Conventions	----- 2 ----- Good grammar and spelling are evident.	----- 1 ----- Some spelling and grammar mistakes are evident.	----- 0 ----- Numerous spelling and grammar mistakes are present.	Points Awarded

Student(s); _____ Project Number: _____ Please transfer total points to the Scantron sheet. Total Points=_____