

Rubric - Science Fair Evaluation Criteria

Student Name: _____ Teacher: _____

Project Title: _____

- **USE** these criteria to **SELF-EVALUATE** your science fair project one step at a time.
- **SUBMIT** with your work as suggested in the timeline log for the teacher to "**pre-evaluate**" your progress.

2015-16 Criteria	0 points	1 point UNSATISFACTORY	3 points SATISFACTORY	5 points EXCELLENT	Points Earned
Question	No question present	Not written as a question / not testable / incomplete cause and effect / no details	Attempts to write a testable question / not specific / unclear cause and effect / insufficient details	Question is testable / specific and measurable cause and effect / includes details	
Research	No research present	Vocabulary and or Q&A missing / bibliography worksheet correctly lists 1 of 3 sources	Vocabulary and Q&A incomplete / bibliography worksheet correctly lists 2 of 3 sources	Vocabulary and Q&A complete / bibliography worksheet correctly lists 3 or more sources	
**Variables (OPTIONAL - earn up to 5 extra points)	No variables identified	Correctly identified 1 of 3 variables (independent / dependent / controlled)	Correctly identified 2 of 3 variables (independent / dependent / controlled)	Correctly identified 3 of 3 variables (independent / dependent / controlled)	
Hypothesis	No hypothesis present	Hypothesis is stated with no reasons / hypothesis not written as an "If...then...because ..." or "I think... because ..." statement / does not relate to the question / not testable	Hypothesis has general reasoning not based on research / attempts to write hypothesis as an "If...then...because ..." or "I think ... because ..." statement / attempts to relate to the question / not fully testable	Hypothesis is detailed and draws on prior knowledge or research / hypothesis is written as an "If...then...because ..." or "I think... because ..." statement / clearly relates to the question / testable	
Materials	No materials are identified	Materials not written in list form / materials are not identified correctly / 3 or more materials or amounts missing / missing safety concerns	Attempt to write materials in list form without using "bullets" / most materials are correctly identified / 1-2 materials or amounts missing / does not identify all safety concerns	Materials correctly written in list form using "bullets" / all materials carefully identified / amounts are included / clearly identifies safety concerns	
Procedure	No procedure present / it is a research, model or demonstration	Procedure is vague and difficult to repeat / unclear, insufficient details / does not write in "step-by-step" form / steps not numbered / lacks 3 or more steps / missing safety concerns	Procedure is clear enough to repeat with little difficulty / attempts to write in "step-by-step" form / most steps are numbered / lacks 1-2 steps / does not identify all safety concerns	Procedure is precise and easy to repeat / correctly written in "step-by-step" form / steps are numbered correctly / clearly identifies safety concerns	

CONTINUES ON BACK SIDE →

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2015-16 Criteria	0 points	1 point UNSATISFACTORY	3 points SATISFACTORY	5 points EXCELLENT	Points Earned
Trial Data (observations / measurements)	No data collected or present	Insufficient data collected / experiment repeated only 1 time (only 1 trial)	Some quantitative and or qualitative data collected throughout 2 experimental repetitions (2 trials)	Exemplary quantitative and or qualitative data collected throughout 3 or more experimental repetitions (3+ trials)	
Data Presentation (tables, graphs, photos, diagrams)	No data presentation	Insufficient data presentation documents / insufficiently labeled or titled / poor interpretation of data <ul style="list-style-type: none"> • Tables: missing / errors in data presentation / averages missing • Graphs: missing / incorrect type for data / errors in data presentation • Photos: missing / not relevant as data / missing captions • Diagrams: unclear, not relevant to data 	Sufficient data presentation documents / sufficiently labeled or titled / attempts to interpret trial data <ul style="list-style-type: none"> • Tables: some are unclear / trial averages are incomplete • Graphs: some are not the best type to use for the data collected • Photos: some are not relevant as data / vague captions • Diagrams: some are unclear and or not relevant to data 	Excellent data presentation documents / accurately labeled and titled / interprets trial data correctly <ul style="list-style-type: none"> • Tables: are clearly organized / trial averages included • Graphs: are the correct type for the data collected • Photos: are relevant as data with detailed captions • Diagrams: are clear and relevant to data 	
Conclusion	No conclusion	Doesn't restate hypothesis / poorly supports or rejects the hypothesis using little or no data to support statement / does not address possibility of errors / conclusion is poorly defended or incorrect / no proposal for further investigation	Attempts to restate the hypothesis / attempts to explain why data supports or rejects hypothesis by using some data as evidence to support statement / attempts to identify and explain sources of error / conclusion is logical but not thoroughly defended / proposal for further investigation is incomplete	Restates the hypothesis / clearly explains why data supports or rejects hypothesis by using data as evidence to support statement / identifies sources of error and explains effects on results / conclusion is logically forced from data and prior knowledge / made a proposal for further investigation	
**Application (OPTIONAL - earn up to 5 extra points)	No application	Does not explain what was learned / application (or use) of the experiment is vaguely identified	Attempts to explain what was learned / identifies an obvious application (or use) of the experiment	Clearly explains what was learned / identifies a significant and practical scientific or societal application (or use) of the experiment	
Display (2 choices) <ul style="list-style-type: none"> • <u>tri-fold board</u> (48" x 36") - use display board layout & checklist • <u>Power Point Presentation</u> - use Power Point Template 	Not a tri-fold board / 6+ grammar errors / illegible and unappealing / no color	Does not follow layout specifications / missing 3 or more labels to the scientific method / text is difficult to read; too small or poor choice of font style / disorganized / cluttered / documents have smudges, stains, are wrinkled or torn / protruding staples / 5+ grammar errors / poor color coordination; plain or excessive use of color	Attempts to follow layout specifications / 1-2 labels to the scientific method are missing / clean and uncluttered / text can be read from 2 feet away / attempts to adhere all document corners / some tape or glue is visible / eye-catching / 3-5 grammar errors / good color coordination; 3-5 colors	Follows all layout specifications / all labels to the scientific method are present / well organized / very neat / legible text and data presentation; proper use of font styles and size / all document corners adhered to board / no visible tape or glue / quickly catches your eye / 1-2 grammar errors / excellent color coordination; 2-3 colors	
<div> <div>(55-45 pts)</div> <div>Prize Awarded</div> </div> <div> <div>(44- 33 pts)</div> <div>1st</div> </div> <div> <div>(32- 23 pts)</div> <div>2nd</div> </div> <div> <div>(22 points & below)</div> <div>3rd</div> </div> <div> <div></div> <div>Participation</div> </div>					<div>FINAL SCORE</div> <div>/45</div>