

PLACE STICKER WITH PROJECT NAME AND JUDGE NAME HERE

		Superior			Good			Average			Needs Improvement							
Hypothesis or Problem Statement (10)	Traditional	Testable, clear, bounded hypothesis - Clearly stated and well written - Appropriate for grade level - Shows insight, understanding			- Lacking in 1 area: clarity, appropriate level, insight - Hypothesis present, but not completely testable			- Lacking in 2 areas: clarity, appropriate level, insight - Hypothesis incomplete or not testable			- Poorly conceived or lacking in all 3: clarity, appropriate level, insight - Hypothesis missing or poorly defined			A				
	Inv/Desi	Statement of problem (design goals) - Clearly stated and well written - Appropriate for grade level - Shows insight, understanding			- Lacking in one area: clarity, appropriate level, insight - Problem/design statement present.			- Lacking in 2 areas: clarity, appropriate level, insight - Incomplete problem/design statement			- Poorly conceived or lacking in all 3: clarity, appropriate level, insight - Problem/design statement missing or poorly defined							
		10	9	8	7	6	5	4	3	2	1	0						
Design & Procedure (15)	Traditional	Exemplary plan to support / refute hypothesis with valid testing <u>and</u> 1. Sequential experimental procedures are quantitatively and/or qualitatively listed, and connect hypothesis, data & results 2. Variables, controls, trials are sufficient 3. Procedures are logical and repeatable			- Sufficient plan to support / refute hypothesis with all 3 other criteria (list to left) met <u>or</u> - Exemplary plan and 2 of 3 other criteria (list to left) met <u>or</u> - Some improvements needed throughout			- Sufficient plan with 2 of 3 other criteria met (list to left), <u>or</u> - Exemplary plan and 1 of 3 other criteria (list to left) met, <u>or</u> - Major improvements needed throughout			- Sufficient plan with 1 of 3 other criteria for excellence met, <u>or</u> - Plan information is unclear, missing or insufficient			B				
	Invention/Design	Exemplary design process with valid testing: 1. Brainstorming with sketches 2. Detailed rendering, dimensions, bill of materials 3. Assembly details or set up instructions 4. Photos or prototype displayed 5. Variables, controls, trials are sufficient 6. Testing is logical and repeatable			- 4 to 5 of the 6 criteria required for excellence are met (list to left) - Some improvements could be made			- 3 of 6 criteria (list to left) met - Some improvements could be made			- Description of design & testing not included or inadequate to show how design works and/or if design meets requirements							
		15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	
Data & Results (15)	Traditional	1. Where possible, data are presented in graphs and/or tables 2. Correct & appropriate data presentation 3. Sufficient data to create confidence			- 2 of the 3 criteria (list to left) met or some improvements could be made			- 1 of the 3 criteria (list to left) met or major improvements required			- Data were not presented in graphs & tables, or were improperly presented			C				
	Invention/Design	1. Where possible graphs, tables or other data were used to evaluate & document invention design goals vs. requirements 2. Functionality is fully tested & validated 3. Records on testing are included 4. Prototype was redesigned or potential design improvements were identified			- 3 of the 4 criteria (list to left) met or some improvements could be made			- 2 of the 4 criteria (list to left) met or major improvements could be made			- This information is missing or improperly presented							
		15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	
Conclusions, Completeness (10)	Traditional	1. Status of the hypothesis is correctly and logically addressed, and is stated in an unbiased manner (confirmed/refuted) 2. Completeness of work and validity of conclusions are substantiated 3. Discussion is insightful, demonstrates clear understanding of research project, broader subject & suggested new work			- 2 of 3 criteria (list to left) met, or some improvements could be made			- 1 of 3 criteria (list to left) met, or overall information is lacking in quality and perspective			- No discussion / conclusions provided			D				
	Inv/Desi	1. Thoroughly addresses effectiveness of design in meeting goals, solving problem 2. Thorough discussion of applications (significance, utility, cost effectiveness, etc.) 3. Insightful discussion, demonstrates clear understanding of design project, broader subject & suggested new work			- 2 of 3 criteria (list to left) met, or some improvements could be made			- 1 of 3 criteria (list to left) met, or overall information is lacking in quality and perspective			- No applications or needs addressed							
		10	9	8	7	6	5	4	3	2	1	0						
Display, Clarity (10)	All	Exemplary: creativity, clarity, logic, writing, interpretability, construction, graphics, grammar			Good...			Average effort...			Inadequate display...			E				
		10	9	8	7	6	5	4	3	2	1	0						
Logs (5)	All	1. Clearly written, complete and clear 2. Goals & procedures are easy to follow 3. Comments included 4. Records include dates			- 3 of 4 criteria met (list to left), or some improvements could be made			- 2 of 4 criteria met (list to left), or major improvements required			- No notebook , or 1 criteria (list to left) met			F				
		5	4		3			2		1		0						
Background (5)	All	Reflects depth of understanding, insight; <u>Middle School Projects:</u> - Text books from grade level - Magazines (ex: Nature, Popular Science) - Interviews with experts <u>High School Projects: above items PLUS</u> - College level text books - <u>Relevant</u> research journals			Relevant background research <u>Middle School:</u> - 2 of 3 items from middle school list <u>High School:</u> - 2 of 3 items from middle school list AND - All items from high school list			Relevant background research <u>Middle School:</u> - 1 of 3 items from middle school list, but not limited to classroom reading <u>High School:</u> - 2 to 3 items from middle school list AND - 1 of 2 items from high school list			- Research not relevant - Research mainly based on standard classroom reading			G				
		5	4		3			2		1		0						
Creativity (30)	All Projects	Investigation is entirely original: 1. Creative idea 2. Novel data analysis/interpretation 3. Creative/original use of equipment 4. Method is original, clever, apt			- Lacking in 1 to 2 of 4 criteria (list to left)			- Lacking in 3 of 4 criteria (list to left)			- Project lacks originality			H				
		30	25		20		15		10		5		0					

	Appropriate Skills	Shortcomings	Large Deficiency	May not be Student's Work	COMMENTS FOR NON-ZEROS
Skills – Hypothesis	Can explain: - Basis of hypothesis or problem statement - Motivation - 0	Shortcomings in explaining 1 of 2: - Basis of hypothesis or problem statement - Motivation - 1 -2 -3	Difficulty explaining both: - Basis of hypothesis or prob statement - Motivation - 4 -5 -6 -7	- Does not understand basis of hypothesis nor motivation - 8 -9 -10	
Skills – Data Collection	- Has skills necessary to collect the data - Decided which data to collect - If data could not be collected by student, he/she understood methods behind the collection - 0	Shortcomings in one of below: - Skills (or methods if unable to collect) - Deciding which data to collect - 1 -2 -3	Large deficiency in 1 of below: - Skills (or methods if unable to collect) - Deciding which data to collect - 4 -5 -6 -7	- The student does not have the skills necessary to collect the data - Student does not understand the data or the reasoning/plan for collection - 8 -9 -10	
Skills – Conclusions	- Student understands conclusions - Student clearly drew the conclusions himself/herself - 0	- Student understands conclusions, but has holes in understanding - 1 -2 -3	- Student vaguely understands conclusions - Large holes in understanding - 4 -5 -6 -7	- Student does not understand conclusions - 8 -9 -10	
Comments:					

A	<input type="text"/>	10
B	<input type="text"/>	15
C	<input type="text"/>	15
D	<input type="text"/>	10
E	<input type="text"/>	10
F	<input type="text"/>	5
G	<input type="text"/>	5
H	<input type="text"/>	30
Subtotal	<input type="text"/>	100
Deductions	-	-30
Total	<input type="text"/>	

Award Code Nominations – Middle School Awards

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