https://www.cte.cornell.edu/documents/Science%20Rubrics.pdf

Research F	Paper	Rubric	
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 Name:

 Score:

Category	Exceeds Standard	Meets Standard	Nearly Meets Standard	Does Not Meet Standard	No Evidence	Score
Title Page	Title Your Name, Teacher's Name, Course Period, Date, Neatly finished-no errors	Evidence of four	Evidence of 3	Evidence of 2 or less	Absent	
Thesis Statement	Clearly and concisely states the paper's purpose in a single sentence, which is engaging, and thought provoking.	Clearly states the paper's purpose in a single sentence.	States the paper's purpose in a single sentence.	Incomplete and/or unfocused.	Absent, no evidence	
Introduction	The introduction is engaging, states the main topic and previews the structure of the paper.	The introduction states the main topic and previews the structure of the paper.	The introduction states the main topic but does not adequately preview the structure of the paper.	There is no clear introduction or main topic and the structure of the paper is missing.	Absent, no evidence	
Body	Each paragraph has thoughtful supporting detail sentences that develop the main idea.	Each paragraph has sufficient supporting detail sentences that develop the main idea.	Each paragraph lacks supporting detail sentences.	Each paragraph fails to develop the main idea.	Not applicable	
Organization- Structural Development of the Idea	Writer demonstrates logical and subtle sequencing of ideas through well-developed paragraphs; transitions are used to enhance organization.	Paragraph development present but not perfected.	Logical organization; organization of ideas not fully developed.	No evidence of structure or organization.	Not applicable	
Conclusion	The conclusion is engaging and restates the thesis.	The conclusion restates the thesis.	The conclusion does not adequately restate the thesis.	Incomplete and/or unfocused.	Absent	
Mechanics	No errors in punctuation, capitalization and spelling.	Almost no errors in punctuation, capitalization and spelling.	Many errors in punctuation, capitalization and spelling.	Numerous and distracting errors in punctuation, capitalization and spelling.	Not applicable	
Usage	No errors sentence structure and word usage.	Almost no errors in sentence structure and word usage.	Many errors in sentence structure and word usage.	Numerous and distracting errors in sentence structure and word usage.	Not applicable	
Citation	All cited works, both text and visual, are done in the correct format with no errors.	Some cited works, both text and visual, are done in the correct format. Inconsistencies evident.	Few cited works, both text and visual, are done in the correct format.	Absent	Not applicable	
Bibliography	Done in the correct format with no errors. Includes more than 5 major references (e.g. science journal articles, books, but no more than two internet sites. Periodicals available on-line are not considered internet sites)	Done in the correct format with few errors Includes 5 major references (e.g. science journal articles, books, but no more than two internet sites. Periodicals available on-line are not considered internet).	Done in the correct format with some errors. Includes 4 major references (e.g. science journal articles, books, but no more than two internet sites. Periodicals available on-line are not considered internet).	Done in the correct format with many errors. Includes 3 major references (e.g. science journal articles, books, but no more than two internet sites. Periodicals available on-line are not considered internet sites.)	Absent or the only sites are internet sites.	

Portfolio Rubric

Name:

_ Date: Score:	
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	Exceeds Standard	Meets Standard	Nearly Meets Standard	Does Not Meet Standard	No Evidence	Score
Appe arance	Creative and attractive cover with color and graphics, clear organization, readable and neat, title page, table of contents, section dividers, and three ring binder.	Contains title page, table of contents, section dividers, and three ring binder.	Contains 3 of 4 criteria for meets; and /or poorly organized and difficult to read; lacking neatness.	No organization, missing significant 2 of 4 criteria.	Absent structure and organization.	
Contents	All required information is discerned with clarity and precision and contains all items listed in Meets category	Contains: application, abstract, research paper, lab report, observation log, reflective essay, guide and rubrics.	Contains 5 – 6 of criteria for meets; and /or poorly organized	Contains less than 5 criteria for meets.	Absent contents, structure and organization.	

Reflective Essa	y Name: _		I	Date:	Score:	_
	Exceeds Standard	Meets Standard	Nearly Meets Standard	Does Not Meet Standard	No Evidence	Score
Reflect personal learning stretch in Science Project	Shows great depth of knowledge and learning, reveals feelings and thoughts, abstract ideas reflected through use of specific details.	Relates learning with research and project, personal and general reflections included, uses concrete language.	Does not go deeply into the reflection of learning, generalizations and limited insight, uses some detail.	Little or no explanation or reflection on learning, no or few details to support reflection.	Shows no evidence of learning or reflection.	
Organization- Structural Development of the Idea	Writer demonstrates logical and subtle sequencing of ideas through well- developed paragraphs; transitions are used to enhance organization.	Paragraph development present but not perfected.	Logical organization; organization of ideas not fully developed.	No evidence of structure or organization.		
Conclusion	The conclusion is engaging and restates personal learning.	The conclusion restates the learning.	The conclusion does not adequately restate the learning.	Incomplete and/or unfocused.		
Mechanics	No errors in punctuation, capitalization and spelling.	Almost no errors in punctuation, capitalization and spelling.	Many errors in punctuation, capitalization and spelling.	Numerous and distracting errors in punctuation, capitalization and spelling.	Not applicable	
Usage	No errors in sentence structure and word usage.	Almost no errors in sentence structure and word usage.	Many errors in sentence structure and word usage.	Numerous and distracting errors in sentence structure and word usage.	Not applicable	

Lab Report

	Exceeds Standard	Meets Standard	Nearly Meets Standard	Does Not Meet Standard	No Evidence	Score
Title Page	Contains: Title Your Name, Teacher's Name, Course Period, Date, Neatly finished-no errors	Missing 1 component	Missing 2 – 4 components	Missing more than 4 components		
Question	Clear and concise problem stated that is testable.	Identifies the question in an unclear manner, but is still testable.	Identifies only part of the question, but is still testable	The question is not testable no matter how clear and concise the question is.		
Hypothe sis	Follows "ifthen because" format. Is related to the question. Clearly defines controls vs. variables in "if" portion. Predicts with correct facts.	Follows "ifthen because" format. Is related to the question. Defines controls vs. variables in "if" portion in an unclear manner. Predicts with correct facts	Follows "ifthen because" format. Is related to the question. Defines controls vs. variables in "if" portion in an unclear manner. Predicts with some facts.	Follows "ifthen because" format. Is related to the question. Defines controls vs. variables in "if" portion in an unclear manner. Predicts with no facts		
Materials	Lists all materials and equipment.	Lists most materials and equipment.	Lists some of the materials & equipment.	Lists wrong materials or equipment.		
Procedure	Lists all steps in a detailed, sequential order that are easily followed. All safety precautions and warnings are provided. Provides diagrams of all set ups.	Lists all steps in a sequential order that are not easily followed. All safety precautions and warnings are provided. Provides diagrams of all set ups.	Lists all steps in a sequential order that are not easily followed. All safety precautions and warnings are missing. Provides some diagrams of set ups.	Lists steps in an order that are not sequential, not easily followed, or incomplete. Some safety precautions and warnings are not provided. Provides some diagrams of set ups.		
Results	All data is recorded and organized in a clear manner. All visible observations are provided. Complete and correct analysis of data is provided. Errors of Experimentation are provided.	All data is recorded and organized in a clear manner. All visible observations are provided. Analysis of data is provided with a few errors. Errors of experimentation are provided.	All data is recorded and organized in a clear manner. Visible observations are missing. Analysis of data is provided with a few errors. Errors of experimentation are provided.	Incorrect data is provided regardless of inclusion or presentation of all other criteria.		
Conclusion	Restates the hypothesis, supports or refutes it and explains the role of the test in making the decision	Restates the hypothesis and supports or refutes it	Supports or refutes the hypothesis without restating it	Does not address the hypothesis		
Mechanics	No errors in punctuation, capitalization and spelling.	Almost no errors in punctuation, capitalization and spelling.	Many errors in punctuation, capitalization and spelling.	Numerous and distracting errors in punctuation, capitalization and spelling.		
Usage	No errors sentence structure and word usage.	Almost no errors in sentence structure and word usage.	Many errors in sentence structure and word usage.	Numerous and distracting errors in sentence structure and word usage.		

Oral Presentation:

 Name:

 Date:

Select the box which most describes student performance. Alternatively you can "split the indicators" by using the check boxes before each indicator to evaluate each item individually.

	Exceeds Standard	Meets Standard	Nearly Meets Standards	Does Not Meet Standard	Score
Language Use	Effectively uses eye contact.	Maintains eye contact.	□ Some eye contact, but not	□ Uses eye contact ineffectively.	
and Delivery	□ Speaks clearly, effectively and	Speaks clearly and uses suitable	maintained.	Fails to speak clearly and	
The student	confidently using suitable	volume and pace.	□ Speaks clearly and unclearly in	audibly and uses unsuitable	
communicates	volume and pace.		different portions.	pace.	
ideas effectively	Fully engages the audience.	□ Takes steps to engage the	□ Occasionally engages audience.	Does not engage audience.	
		audience.	Dresses inappropriately.		
	Dresses appropriately,	Dresses appropriately.	Selects words inappropriate for	Dresses inappropriately.	
	□ Selects rich and varied words for	Selects words appropriate for	context; uses incorrect grammar.	Selects words inappropriate for	
	context and uses correct	context and uses correct		context; uses incorrect grammar.	
	grammar.	grammar.			
Organization	□ Introduces the topic clearly and	□ Introduces the topic clearly.	□ Introduces the topic.	Does not clearly introduce the	
and	creatively.			topic.	
Preparation	□ Maintains clear focus on the	Maintains focus on the topic.	□ Somewhat maintains focus on	Does not establish or maintain	
The student	topic		the topic.	focus on the topic.	
exhibits logical	Effectively includes smooth	Include transitions to connect	□ Includes some transitions to	Uses ineffective transitions that	
organization.	transitions to connect key points.	key points.	connect key points.	rarely connect points.	
	□ Ends with logical, effective and				
	relevant conclusion.	Ends with coherent conclusion	□ Ends with a conclusion based on	Ends without a conclusion.	
		based on evidence.	evidence.		
Content	Clearly defines the topic or	Clearly defines the topic or	Defines the topic or thesis.	Does not clearly define the topic	
The student	thesis and its significance.	thesis.		or thesis.	
explains the	□ Supports the thesis and key	Supports the thesis and key	□ Supports the thesis with	Does not support the thesis with	
process and	findings with an analysis of	findings with evidence.	evidence.	evidence.	
findings of the	relevant and accurate evidence				
project and the	Provides evidence of extensive	Presents evidence of valid	Presents evidence of research	Presents little or no evidence of	
resulting	and valid research with multiple	research with multiple sources.	with sources.	valid research.	
learning.	and varied sources				
	Provides evidence of complex	Provides evidence of problem	Provides some evidence of	□ Shows little evidence of problem	
	problem solving and learning	solving and learning stretch.	problem solving and learning	solving and learning stretch.	
	stretch.		stretch.	□ Shows little evidence of the	
	Combines and evaluates existing	Combines existing ideas to form	□ Combines existing ideas.	combination of ideas.	
	ideas to form new insights.	new insights.			
Questions and	Demonstrates extensive knowledge	Demonstrates knowledge of the	Demonstrates some knowledge of	Demonstrates incomplete	
Answers	of the topic by responding	topic by responding accurately and	the topic by responding accurately	knowledge of the topic by	
	confidently, precisely and	appropriately to questions and	and appropriately to questions and	responding inaccurately and	
	appropriately to all audience	feedback.	feedback.	inappropriately to questions and	
	questions and feedback.			feedback.	

Backboard

	Exceeds Standard	Meets Standard	Nearly Meets Standard	Does Not Meet Standard	No Evidence	Score
Clarity of Topic	Includes a clear title which	Includes a title which	Includes a title that gives	Missing a title or	Not present	
v I	gives specific information	gives information about	some information about	statement of the main		
	about main topic.	the main topic.	the main topic.	topic.		
Details of	Includes all details from	Includes most details from	Includes some details	Includes only a few details	No details from research.	
Research	research and has clear	research and has clear	from research and has	from research using labels		
Resear en	labels, phrases, or	labels or phrases.	labels or phrases.	or phrases.		
	sentence descriptions.					
Effectiveness	Viewer has a thorough	Viewer has an	Viewer has some	Viewer has difficulty	Backboard does not	
	understanding of topic	understanding of the topic	understanding of the topic	understanding topic	communicate topic	
	researched. Backboard	researched. Backboard	researched. Backboard	researched. Backboard	researched.	
	includes specific examples	includes examples and /or	includes some examples	includes few examples		
	and/or illustrations in an	illustrations.	and/or illustrations.	and/or illustrations.		
	organized manner.					
Quality	Includes illustrations and	Includes illustrations and	Includes illustrations and	Does not include	Work is haphazard and	
	labels. Content is edited	labels. Content is edited	labels. Content is not	illustrations and labels	careless. Has none of the	
	for spelling and	for spelling and	edited for spelling and	and/or contains more than	required elements.	
	punctuation and has no	punctuation and has less	punctuation and has more	3 errors in spelling and		
	errors.	than 3 errors.	than 3 errors.	punctuation.		

Design Project Assessment Rubric (sample analytic rubric)

Course No.:	 Date:	
Team/Student:	Reviewer:	

Topic (Weight)	Unacceptable (0)	Marginal (1)	Acceptable (2)	Exceptional (3)	Points
Design Problem and Boundaries (1)	Little or no grasp of problem. Incapable of producing a successful solution.	Some understanding of problem. Major deficiencies that will impact the quality of solution.	Overall sound understanding of the problem and constraints. Does not significantly impair solution.	Clear and complete understanding of design goal and constraints.	
Alternative Designs (2)	Only one design presented or clearly infeasible alternative given.	Serious deficiencies in exploring and identifying alternative designs.	Alternative approaches identified to some degree.	Final design achieved after review of reasonable alternatives.	
Use of Computer– Aided Tools (2)	Serious deficiencies in understanding the correct selection and/or use of tools.	Minimal application and use of appropriate tools.	Computer-aided tools used with moderate effectiveness to develop designs.	Computer–aided tools are used effectively to develop and analyze designs.	
Application of Engineering Principles (2)	No or erroneous application of engineering principles yielding unreasonable solution.	Serious deficiencies in proper selection and use of engineering principles.	Effective application of engineering principles resulting in reasonable solution.	Critical selection and application of engineering principles ensuring reasonable results.	
Final Design (3)	Not capable of achieving desired objectives. No implementation of resource conservation and recycle strategies.	Barely capable of achieving desired objectives. Minimal utilization of resource conservation and recycle potentials.	Design meets desired objectives. Moderately effective utilization of resource conservation and recycle potentials.	Design meets or exceeds desired objectives. Effective implementation of resource conservation and recycle strategies.	
Process Economics (1)	No or totally erroneous cost estimates presented.	Reasonable cost estimates presented, but no profitability analysis included.	Reasonable profitability analysis presented, but no interpretation of the results.	Effective use of profitability analysis leading to improvement recommendations.	
Interpretation of Results (2)	No or erroneous conclusions based on achieved results.	Serious deficiencies in support for stated conclusions.	Sound conclusions reached based on achieved results.	Insightful, supported conclusions and recommendations.	
OVERALL PERFORMANCE	Unacceptable	Marginal	Acceptable	Exceptional	TOTAL
POINTS REQUIRED	0–9	10–19	20–29	30–39	

*Rubric shared by Connie M. Schroeder, University of Wisconsin-Milwaukee on the POD listserv, April 14, 2008.

Group Participation Rubric (sample analytic rubric)

		Level of P	articipation	
Criteria	Distinguished	Proficient	Basic	Unacceptable
Workload	Did a full share of the work—or more; knows what needs to be done and does it; volunteers to help others.	Did an equal share of the work; does work when asked; works hard most of the time.	Did almost as much work as others; seldom asks for help.	Did less work than others; doesn't get caught up after absence; doesn't ask for help.
Getting Organized	Took the initiative proposing meeting times and getting group organized.	Worked agreeably with partner(s) concerning times and places to meet.	Could be coaxed into meeting with other partner(s).	Did not meet partner(s) at agreed times and places.
Participation in Discussions	Provided many good ideas for the unit development; inspired others; clearly communicated desires, ideas, personal needs, and feelings.	Participated in discussions; shared feelings and thoughts.	Listened mainly; on some occasions, made suggestions.	Seemed bored with conversations about the unit; rarely spoke up, and ideas were off the mark.
Meeting Deadlines	Completed assigned work ahead of time.	Completed assigned work on time.	Needed some reminding; work was late but it didn't impact grade.	Needed much reminding; work was late and it did impact quality of work or grade.
Showing up for Meetings Score	Showed up for meetings punctually, sometimes ahead of time.	Showed up for meetings on time.	Showed up late, but it wasn't a big problem for completing work.	No show or extremely late; feeble or no excuse offered.
Providing Feedback Score	Habitually provides dignified, clear, and respectful feedback.	Gave feedback that did not offend.	Provided some feedback; sometimes hurt feelings of others with feedback or made irrelevant comments.	Was openly rude when giving feedback.
Receiving Feedback Score	Graciously accepted feedback.	Accepted feedback.	Reluctantly accepted feedback.	Refused to listen to feedback.

Retrieved February 12, 2008 from *Making the Grade: The Role of Assessment in Authentic Learning* by Marilyn M. Lombardi, <u>http://www.educause.edu/ir/library/pdf/ELI3019.pdf</u>

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Receiving Feedback Score	Graciously accepted feedback.	Accepted feedback.	Reluctantly accepted feedback.	Refused to listen to feedback.

Retrieved February 12, 2008 from *Making the Grade: The Role of Assessment in Authentic Learning* by Marilyn M. Lombardi, <u>http://www.educause.edu/ir/library/pdf/ELI3019.pdf</u>