

Research-Experiment/Presentation grading RUBRICS and due dates

The **purpose** of this project is that you will

1. Glorify God by enjoying physics
2. Research and experiment with a physics topic which is of interest to you. Collect data!
3. Become more familiar with resources and methods which can enhance your learning
4. Communicate clearly what you have learned

IMPORTANT DATES:

Library Day Wed, March 23

TOPIC, HYPOTHESIS

ABSTRACT, PROCEDURE+ Due Wednesday, April 6 - (50 points) One typed page. Include:

- (5pts) **TOPIC:** What is your broad topic you will research?
- Why is this topic is of some interest to you? These paragraphs won't be formal-you may use 1st person
- How is the research going? Briefly, what have you learned so far? How might you present it.
- (10pts) **Hypothesis:** What is your hypothesis? What question will your experiment try to answer? Are there any materials that need to be ordered?
- (15pts) Preliminary **Abstract:** A formal paragraph summarizing the paper.
- (5pts) **Bibliography** so far - this must be in the accepted format, MLA. (Note: If you don't actually cite a work in your paper, then you can later separate them out into Works Consulted and Works Cited. You may consult wikipedia.com, but don't cite them. Check their "facts.")
- (10pts) **Procedure** - All steps listed completely and with details. Easy to understand.

OUTLINE Due Friday, April 8 - (25 points)

In **MLA** format you must have a minimum one typed page including:

Calendar

- (5pts) Title: clear & straightforward description of topic
- (5pts) Abstract (improved if needed)
- (10pts) Outline of your presentation/report - The better this is the easier it is to write your paper. You are welcome to include quotes. Site your sources (parenthetical is recommended).
- (5pts) **Bibliography** MLA (updated/improved)

Mon	Tues	Wed	Thur	Fri
		Mar 23 go to library	24	25 no classes
Mar 29	Spring	Break		April 1
4 (laptop cart = lc)	5 lc	6 Abstract & Procedure	7 lc	8 outline #1
11	12 lc	13	14 L	15 outline #2
18	19 lc	20 peer paper	21 paper	22 no classes
25 L	26 1/2 pg	27 begin presentation		no classes

OUTLINE improved Due Friday, April 15 - (25pts)

PAPER #1 Due Wednesday, April 20 - (10 points – see next page for rubric)

Bring a printed copy to class. Get it proofread by a peer. Be sure you explain your physics clear enough that a peer will be able to understand it. **CHECK MLA FORMATTING.**

PAPER #2 Due Thursday, April 21 - (100 points) Submit a copy of your perfect paper. Don't forget citations AND the perfect BIBLIOGRAPHY. Don't request this back for your presentation.

1/2 pg Handout + FORM Due Tues end of class, April 26 - (part of the 100 pt presentation grade)

Turn in:

- a. FILL out Research Presentation rubric (especially the name and the visual aid & handout)
- b. EXACTLY 1/2 **page** (and no more) handout which will be given out the day you present so that your audience will have something to take notes on and will have something to remember what you taught them. (e-mail me this 1/2 page. Name file period and last name, e.g. 1Smith) Have your name and title on the page. DON'T print or make copies.
- c. Get me a copy of your PowerPoint by 11:59 p.m. Tues, April 26. (Get it to me in class or send it to covenantbird@gmail.com and seanbird@covenantchristian.org)

PRESENTATIONS Due Wed, April 27 - (100 points) Presentations begin. You must be prepared to go when called upon.

Physics Research Paper grader check list

Peer Review – Grade tough. They either get the point or they don't; no half points. It is possible to get more than the 10 points required for an 100%. Return their paper to them and turn this sheet into the green tray.

Name _____ per. _____

TOPIC _____

Reader's name: _____

1. Read it for content

Does it make sense? Do you have questions about anything they mean? Are there things that they should make more clear?

Clarity /3

[3 clear, 2 somewhat clear – some questions, 1 many questions, unclear earns a 0]

Does it seem like something is missing? Did they completely cover the topic? Does it seem long enough? Sufficient /2

[2 complete, 1 almost complete, 0 much work needs to be done]

2. Read it carefully to correct grammar & punctuation. *Does it appear that they tried to proofread their paper? Are there obvious errors? Correct errors if you can or at least raise questions of concern.*

Point out errors..... /2

[2 few errors, 1 more than 2, 0 too many (10 or more)]

3. FORM

Is it in MLA style? Is abstract at top of 1st page single spaced? There shouldn't be a title page for MLA; do they have one?

1" margins /1

font style & size /1

correct page numbering..... /1

works cited page /1

Correct their bibliography

check citations /2

[2 perfect, 1 one or two errors, 0 poor citations]

Is their parenthetical citation form correct? or maybe they used footnotes - are those correct?..... /2

[2 perfect, 1 punctuation errors but consistently wrong, 0 inconsistent or nonexistent]

TOTAL /10

Scientific Method Final Paper Rubric (103/100)

	IMPRESSIVE	ADEQUATE	MINIMAL	Score
Background Research	[50] Well researched and documented. Clearly communicates.	Somewhat researched. Communicated somewhat clearly. Sources not in MLA	Not researched well. Doesn't communicate well. Not MLA format.	50 40 30
Investigative Question	[3] Experimental question is clear and complete. Easy to understand.	Question is somewhat clear and/or complete. Some difficulty in understanding.	Question is unclear and/or incomplete. Difficult to understand.	3,2,1
Hypothesis	[3]Hypothesis uses an "IF...THEN..." statement to answer the Investigative Question clearly.	Hypothesis attempts to use an "IF...THEN..." statement to answer the Investigative Question somewhat.	Hypothesis does not use an "IF...THEN statement and/or does not answer the question.	3 2 1
Materials	[3]All materials used are identified in detail and listed neatly.	Most of the materials used are identified in some detail and listed somewhat neatly.	Materials are missing and/or are not identified in detail. Hard to read.	3 2 1
Method	[4]All steps followed are described completely and with details. Easy to understand. A diagram may be helpful.	Most steps followed are listed somewhat completely and with most of the details. Some difficulty in understanding.	Steps to do the experiment and/or details are missing. Difficult to understand. Not repeatable.	4 2 1
Data	[5]Data table is complete and includes labels.	somewhat complete, partially clear labels.	Data table not complete. Labels missing. (no data=0)	5 3, 1
Graph	[5]Electronically made graphs are complete and neatly labeled. Easy to understand.	Graph is somewhat complete and mostly labeled. Somewhat easy to understand.	Graph is not complete and/or missing labels. Difficult to understand. (no graph=0)	5 3 1
Results Summary	[10] Summary is clearly written with details. Highlights all major observations.	Summary is somewhat clear with most details. Highlights most major observations.	Summary is unclear with many details missing. Few or no highlights of major observations.	10 7 4
Conclusion	[15]Conclusion answers the Question and clearly explains with details from your observations as to why the Hypothesis was correct, incorrect, or partially correct.	Conclusion somewhat answers the Question and somewhat explains with some details from your observations as to why the Hypothesis was correct, incorrect, or partially correct.	Conclusion does not answer the Question and/or does not explain with details missing from your observations as to why the Hypothesis was correct, incorrect, or partially correct.	15 10 7
Organization and Format	[5]Well organized. Neat and legible. Correct spelling and grammar used. Easy to read. Proper MLA format.	Somewhat organized. Neat and legible most of the time. Some spelling and grammar mistakes. Fairly easy to read.	Poorly organized. Sloppy and illegible. Many spelling and grammar mistakes. Difficult to read.	5 3 1

RESEARCH PRESENTATION RUBRIC

NAME _____

Objective: Demonstrate what you have learned in a clear manner.

100 pts – Fill out and turn in (10 pts) with your 1/2 page handout Tues, April 26, 2011 .

PRESENTATION DELIVERY

Developed by Information Technology Evaluation Services, NC Department of Public Instruction					
	3	6	9	10	Total
1. Eye Contact	Student reads all of report with no eye contact .	Student occasionally uses eye contact, but still reads most of report.	Student maintains eye contact most of the time but frequently returns to notes.	Student maintains eye contact with audience, seldom returning to notes.	
2. Elocution	Student mumbles, incorrectly pronounces terms, and speaks too quietly for students in the back of class to hear.	Student's voice is low . Audience members have difficulty hearing presentation.	Student's voice is clear . Student pronounces most words correctly. Most audience members can hear presentation.	Student uses a clear voice and correct, precise pronunciation of terms so that all audience members can hear presentation.	
3. Graphics	Student uses superfluous (distracting) graphics or no graphics	Student occasionally uses graphics that rarely support text and presentation.	Student's graphics relate to text and presentation.	Student's graphics explain and reinforce screen text and presentation.	
4. Mechanics	Student's presentation has four or more spelling errors and/or grammatical errors.	Presentation has three misspellings and/or grammatical errors.	Presentation has no more than two misspellings and/or grammatical errors.	Presentation has no misspellings or grammatical errors.	
5. Organization	Audience cannot understand presentation because there is no sequence of information.	Audience has difficulty following presentation because student jumps around.	Student presents information in logical sequence which audience can follow.	Student presents information in logical, interesting sequence which audience can follow.	
6. Subject Knowledge	Student does not have grasp of information ; student cannot answer questions about subject.	Student is uncomfortable with information and is able to answer only rudimentary questions.	Student is at ease with expected answers to all questions, but fails to elaborate.	Student demonstrates full knowledge (more than required) by answering all class questions with explanations and elaboration.	
				Total Points:	

VISUAL AID & HANDOUT (fill out this section - answer the questions, etc)

Approximate TIME: _____ Actual time (to be filled out by teacher): _____

Did you (will you) turn your PowerPoint file in on time? _____ Does it work? _____ (When students have video associated with a ppt, this needs to be sent too. These can be big. You can burn it to a cd.)

State what other equipment you will bring or need to have set up?

1/2 page handout (guided notes): List ways that you intend for this to enhance your instruction. Will it provide blanks for students to fill in or a graphic to be labeled, etc.?

What is its goal? What are you trying to teach? List at least 3 main points that are trying to be taught or explained.

- 1.
- 2.
- 3.

List what technology tools you have used and discuss your proficiency with them. (I.e. What information retrieval, data acquisition, data analysis, and report technology did you use?)

[30 pts - section filled out with good answers and quality handout and ppt,

20 pts - section not filled out or poor answers, but 1/2 page handout and ppt are high quality,

10 pts - section not filled out or poor answers, 1/2 page handout and/or ppt are poorly done.]

Total (30) _____

GRAND TOTAL (100) = _____