

JERFSA Research Project Directives & Schedule

Dr. Thornton

(edited 2024)

High school research projects have quickly become the tipping point for college acceptances and scholarships ([Forbes, 2021](#)). Universities are increasing undergrad research programs ([US News, 2020](#)) and therefore seeking students already well versed in format and scientific reasoning. Similar to a Science Fair Project, performing an independent research project assists students in gaining skills such as: discernment, reasoning, analysis, synthesis, scientific writing skills, and quantification of information collected. This experiential brain-based method can also include community-based projects that involve professionals in the field and ultimately presenting at a [professional conference](#).

Normally performed in one semester, this project has been extended to a year-long endeavor. As a JERFSA student, this project can be honed and perfected each year culminating in a Senior Project.

To further assist in the process students can sign up for one on one guidance. There are also numerous resources and examples on <https://sites.google.com/palmbeachschools.org/drthorntonjerfsa/home> (listed below as Section III and corresponding #'s are specific examples for each assignment)

Project Portion/Description/Resources* *SUBJECT TO CHANGE	Due Date*
General research idea • Lots of class discussion • Idea needs approval for ease of data collection - o Each student is to write their own paper • THERE ARE EXAMPLES OF COMPLETED LABS AND PAPERS https://sites.google.com/palmbeachschools.org/drthorntonjerfsa/home • Section III EXAMPLES - o #6 Entire Research Papers - o #7 Examples CLASS LABS	AUG Check Agenda & Google Classroom
THESIS and Five relative journal articles (freshman use valid web sites) and a Bibliography App Submit in format found on: https://sites.google.com/palmbeachschools.org/drthorntonjerfsa/home • Section III EXAMPLES - o #1 Thesis and 5 Journals (Freshman use web sites) - o <i>Will have class time to give a head start-complete at home SIGN UP if you need one on one</i>	Check Agenda & Google Classroom
Initial Introductory paragraph with corrected thesis and sources put in a bibliography with APA format https://sites.google.com/palmbeachschools.org/drthorntonjerfsa/home • Section I - o I. Laboratory Research Format - o #1 & #2 WORKSHEET to help with format - o Complete in GOOGLE DOCS in paragraph form • Section II - o #3 Citations • Section III EXAMPLES - o EXAMPLE OF INITIAL PARAGRAPH AND BIBLIOGRAPHY (Freshman can use links) - o <i>Will have class time to give a head start-complete at home SIGN UP if you need one on one guidance</i>	Check Agenda & Google Classroom

REWRITES on introductory paragraph and NOTES for literature review WITH citations https://sites.google.com/palmbeachschools.org/drthorntonjerfsa/home ● CORRECTIONS (NO CLASS TIME FOR THIS) ○ Open returned, graded paragraph ○ Make a COPY from the FILE tab and give it a current date ○ MAKE CORRECTIONS returned to you from me ○ Add NOTES from sources ● Section III EXAMPLES ○ #3 Paragraph and Notes ○ REMEMBER AN APPROPRIATE BIBLIOGRAPHY ○ <i>Will have class to give a head start-complete at home SIGN UP if you need one on one guidance</i>	SEP Check Agenda & Google Classroom
NOTES BECOME A THEMED OUTLINE https://sites.google.com/palmbeachschools.org/drthorntonjerfsa/home ● Assignment to date ○ Intro paragraph and bibliography should <i>now be perfect</i> ○ Class time for directions on how to turn notes into a themed outline (use citations in outline) ○ Two to four themes required (approx. one paragraph per theme) ▪ Less than two inadequate more than four too much information ▪ Final Literature review is approximately three paragraphs ● Section III EXAMPLES ○ #4 Rewritten initial paragraph and Themes from Notes (Example #2 is best)	SEP Check Agenda & Google Classroom
Completed Introductory paragraph, literature review in paragraph form (WITH CITATIONS), and APA Bibliography (Freshman use links) https://sites.google.com/palmbeachschools.org/drthorntonjerfsa/home ● Section I ○ I. Laboratory Research Format ○ #1 & #2 WORKSHEET to help with format ○ Complete in GOOGLE DOCS in paragraph form ● Section II ○ #2 ADDITIONAL information on how to write a: Literature Review ● Section III EXAMPLES ○ #6 Entire Research Papers ○ #7 Examples CLASS LABS	OCT Check Agenda & Google Classroom
REWRITES of completed Introductory paragraph, literature review in paragraph form (WITH CITATIONS), and APA Bibliography (Freshman use links) https://sites.google.com/palmbeachschools.org/drthorntonjerfsa/home ● CORRECTIONS (NO CLASS TIME FOR THIS) ○ Open returned, graded paper ○ Make a COPY from the FILE tab and give it a current date ○ MAKE CORRECTIONS returned to you from me ● Section I ○ I. Laboratory Research Format ○ #1 & #2 WORKSHEET to help with format ○ Complete in GOOGLE DOCS in paragraph form ● Section II ○ #2 ADDITIONAL information on how to write a: Literature Review ● Section III EXAMPLES ○ #6 Entire Research Papers ○ #7 Examples CLASS LABS SUBMIT TO <u>TURN IT IN</u> and HAVE TWO CLASSMATES <u>PEER REVIEW PAPER</u> ● Section II RESEARCH NOTES AND SUPPLEMENTAL INFORMATION ● d. Peer Reviews ○ How to Peer Review a Paper ○ EXAMPLE of a Review	OCT-NOV Check Agenda & Google Classroom

- o TURN IT IN DIRECTIONS • 50% of MIDTERM • <i>You can always turn something in early!!!</i>	
BEGIN METHODS https://sites.google.com/palmbeachschools.org/drthorntonjerfsa/home • Lots of class discussion • Idea needs approval for ease of data collection • Some of you have already begun to collect data • Section I - o I. Laboratory Research Format - o #1 & #2 WORKSHEET to help with format - o Complete in GOOGLE DOCS in paragraph form • Section II - o #2 ADDITIONAL information on how to write a: Literature Review • Section III EXAMPLES - o #6 Entire Research Papers - o #7 Examples CLASS LABS MAY ALREADY BE COLLECTING DATA	NOV Check Agenda & Google Class-room
PERFECT Intro, Literature Review –REWRITE methods in appropriate form https://sites.google.com/palmbeachschools.org/drthorntonjerfsa/home • CORRECTIONS (NO CLASS TIME FOR THIS) - o Open returned, graded paper - o Make a COPY from the FILE tab and give it a current date - o MAKE CORRECTIONS returned to you from me • Section I - o I. Laboratory Research Format - o #1 & #2 WORKSHEET to help with format - o Complete in GOOGLE DOCS in paragraph form • Section II - o #2 ADDITIONAL information on how to write a: METHODS • Section III EXAMPLES - o #6 Entire Research Papers - o #7 Examples CLASS LABS 50% of MID TERM SUBMIT TO TURN IT IN and HAVE TWO CLASSMATES PEER REVIEW PAPER 50% of MID TERM which is 20% (10%) of final semester grade MAY ALREADY BE COLLECTING DATA	NOV Check Agenda & Google Class-room
COLLECT DATA THERE WILL BE RANDOM DATA CHECKS TO MAKE SURE YOU ARE COLLECTING DATA • Collect Data, organize, • If needed, find mentor to help analyze data in appropriate form	NOV to JAN
RESULTS OF ALL DATA COLLECTED https://sites.google.com/palmbeachschools.org/drthorntonjerfsa/home • Results in a pictorial form (graphs, stats from Excel, etc.) - o Lots of class discussion - o Result Idea needs approval • Section I - o I. Laboratory Research Format - o #1 & #2 WORKSHEET to help with format - o Complete in GOOGLE SHEETS and put in Research paper in Google DOCS - o WE HAVE DONE ELECTRONIC GRAPHING AND TABLE MAKING IN CLASS • Section III EXAMPLES - o #6 Entire Research Papers - o #7 Examples CLASS LABS	JAN Check Agenda & Google Class-room

DISCUSSION AND CONCLUSION https://sites.google.com/palmbeachschools.org/drthorntonjerfsa/home ● SUBMIT TO DATE: PERFECTED INTRO, LIT REVIEW, METHODS, DATA (if applicable), RESULTS ● ADD Discussion and Conclusion ○ One paragraph for each ○ LOTS OF CLASS DISCUSSION and examples with labs ○ REMEMBER that Discussion that includes a comparison/contrast of results to information in introduction ● Section I ○ I. Laboratory Research Format ○ #1 & #2 WORKSHEET to help with format ○ Complete in GOOGLE DOCS in paragraph form ● Section III EXAMPLES ○ #6 Entire Research Papers ○ #7 Examples CLASS LABS	JAN
PERFECTED PAPER https://sites.google.com/palmbeachschools.org/drthorntonjerfsa/home ● CORRECTIONS (NO CLASS TIME FOR THIS) ○ Open returned, graded paper ○ Make a COPY from the FILE tab and give it a current date ○ MAKE CORRECTIONS returned to you from me ● Section I ○ I. Laboratory Research Format ○ #1 & #2 WORKSHEET to help with format ○ Complete in GOOGLE DOCS in paragraph form ● Section III EXAMPLES ○ #6 Entire Research Papers ○ #7 Examples CLASS LABS SUBMIT TO <u>TURN IT IN</u> and HAVE TWO CLASSMATES <u>PEER REVIEW PAPER</u> ● Section II RESEARCH NOTES AND SUPPLEMENTAL INFORMATION ● d. Peer Reviews ○ How to Peer Review a Paper ○ EXAMPLE of a Review ○ TURN IT IN DIRECTIONS	FEB Check Agenda & Google Class- room
FINAL PAPER ● 50% of Final which is 20% (10%) of final semester grade ● <i>You can always turn something in early!!!</i>	MAR