

AP Research Syllabus 2016-2017

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Overview (p. 8, Course and Exam Description)

AP Research allows students to deeply explore an academic topic, problem, or issue of individual interest. Through this exploration, students design, plan, and conduct a year-long research based investigation to address a research question. In the AP Research course, students further their skills acquired in the AP Seminar course by understanding research methodology; employing ethical research practices; and accessing, analyzing, and synthesizing information as they address a research question. Students explore their skill development, document their processes, and curate the artifacts of the development of their scholarly work in a portfolio. The course culminates in an academic paper of approximately 4,000–5,000 words (accompanied by a performance or exhibition of product where applicable) and a presentation with an oral defense.

Course Textbooks and Resources

- Booth, W.C., Colomb, G.C., & Williams, J. *The Craft of Research*. (2nd ed.). Chicago: University of Chicago Press.
- Christensen, L.B., Johnson, R.B., & Tukey, J. *Research Methods: Design and Analysis*. (12th ed.). New York: Pearson.
- Leedy, P.D., & Ormrod, J. *Practical Research: Planning and Design*. (10th ed.). New York: Pearson.
- AP Capstone Research Course and Exam Description (2015). New York: College Board.
- AP Research Workshop Handbook and Resources (2015). New York: College Board.
- Various articles and academic resources for specific lessons

AP Equity and Access Policy

The College Board strongly encourages educators to make equitable access a guiding principle for their AP programs by giving all willing and academically prepared students the opportunity to participate in AP. We encourage the elimination of barriers that restrict access to AP for students from ethnic, racial, and socioeconomic groups that have been traditionally underserved. Schools should make every effort to ensure their AP classes reflect the diversity of their student population. The College Board also believes that all students should have access to academically challenging coursework before they enroll in AP classes, which can prepare them for AP success. It is only through a commitment to equitable preparation and access that true equity and excellence can be achieved

Student Assessments and Class Grade Distribution

AP Research Assessment Score Distribution

Academic Paper	75% of score
Presentation and Oral Defense	25% of score

AP Research Class Grade Distribution

PREP Portfolio	40%
Homework	30%
Projects and Assessments	30%

These percentages represent the distribution that College Board considers when creating a student's final numeric score.

*District's mandated final will be 20% of overall class grade.

Formative and Summative Assessments

40% of Class Grade

- Using a process and reflection portfolio (PREP), students document their inquiry processes, communication with their teachers and consultants, and reflections on their thought processes. They have scheduled conferences with their teachers for review and approval of their scholarly work as evidenced by the portfolio. This portfolio will be routinely used for the following:
 - Weekly Reflections to guide in topic/question development
 - Source collection and organization to develop research question and method
 - Building academic paper in segments
 - Building and storing oral presentation

: 30% of Class Grade

- Homework will typically be focused on studying other research-based articles to aid in student development of composition style and student understanding of how their research supports the current body of knowledge. Homework is assigned on Friday and is typically expected to be returned the following Friday. Late work is not accepted. A student may store their homework within their electronic PREP Portfolio.
- : 30% of Class Grade
- Inquiry Proposal Form: Detailed form completed to ensure that students are prepared to conduct ethical and methodical research. If working with animate objects, data that correlates to humans, or other subjects of ethical concern, and Internal Review Board will need to review the proposal form prior to acceptance.
- Elevator Pitches and Poster Presentations: Students will be given multiple opportunities to express their ideas and goals within the classroom through elevator pitches (short, mini-presentations) and more formal Poster Presentations. These opportunities will allow students to receive feedback from peers and other faculty within the school regarding research elements.
- : Results in AP numerical score for college submission
- Academic Paper (75% of AP Score): The academic paper consists of 4,000-5,000 words and will be written over the course of the year. This paper showcases a student's research conducted during the class.
- Oral Presentation/Defense (25% of AP Score): Once a student has submitted their academic paper, they will also be required to present their research findings and defend their choices regarding research methods and the contribution their research presents to the current body of knowledge. Students will present to a panel that will also pose questions for the student to explain. The Oral Presentation/Defense will last approximately 15-20 minutes. A visual presentation is required for this presentation.

Plagiarism Policy Overview

College Board policy on Plagiarism and Falsification or Fabrication of Information

AP Course and Exam Description, Effective Fall 2015;

Participating teachers shall instruct students to ethically use and acknowledge the ideas and work of others, as well as the consequences of plagiarism. The student's individual voice should be clearly evident, and the ideas of others must be acknowledged, attributed, and/or cited.

A student who fails to acknowledge the source or author of any and all information or evidence taken from the work of someone else through citation, attribution or reference in the body of the work, or through a bibliographic entry, will receive a score of 0 on that particular component of the AP Seminar and/or AP Research Performance Assessment Task. In AP Seminar, a team of students that fails to properly acknowledge sources or authors on the Written Team Report will receive a group score of 0 for that component of the Team Project and Presentation.

A student who incorporates falsified or fabricated information (e.g. evidence, data, sources, and/or authors) will receive a score of 0 on that particular component of the AP Seminar and/or AP Research Performance Assessment Task. In AP Seminar, a team of students that incorporates falsified or fabricated information in the Written Team Report will receive a group score of 0 for that component of the Team Project and Presentation.

Curriculum Framework

The following sections contain the foci, learning objectives, and essential knowledge of each unit within the academic school year. Students will be paced through these units with the hopes that they will be prepared to submit their research for publication at the end of the year.

Quest Framework (p. 9, Course and Exam Description)

In the classroom, students develop and apply discrete skills identified in the learning objectives of the enduring understandings within the following five big ideas.

- Read critically; pose questions and identify issues that compel you to want to explore further.
 - Use specific tools to break down an idea of argument into parts that make sense to you. These tools include re-reading, questioning in the text, considering multiple perspectives.
 - Identify the variety of perspectives/POC/arguments of an issue. Consider any bias to determine the validity of that point of view.
 - Creating new perspectives after evaluating other varying perspectives. Establishing a unique position or claim using a variety of resources designed for a specific audience.
 - A collaborative endeavor communicated clearly and effectively so as to transform both participants and audience.
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Reasoning Processes (p. 7, Course and Exam Description)

The AP Capstone program allows students to develop and practice reasoning processes that help them to make intentional, strategic decisions. It is important for teachers to understand these reasoning processes, which are embedded within the learning objectives.

- being aware of the context of one's own as well as others' perspectives, realizing that individual bias can lead to assumptions
 - making intentional and purposeful choices, realizing that choices have both intended and unintended consequences
 - being able to explain and justify personal choices, logic, line of reasoning, and conclusions.
 - seeing similarities within and across disciplines, concepts, and cultures that may at first seem disparate
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Employing Research and Inquiry Methods (p.9, Course and Exam Description)

In the classroom and independently (while possibly consulting with a mentor or expert in the field), students learn and employ research and inquiry methods to develop, manage, and conduct an in-depth investigation of an area of personal interest, culminating in an academic paper of 4,000-5,000 words that includes the following components:

1. Introduction
2. Method, Process, or Approach
3. Results, Product, or Findings
4. Discussion, Analysis, and/or Evaluation
5. Conclusion and Future Directions
6. Bibliography

Unit 1: Developing Research Essentials,

The foci of this unit: 1) establish the awareness of research and how students will be participating in research during this course 2) guide students to a precise focus for their own research. Students will define their discipline, topic, and potentially gain their specific research focus, referred to as their **Discipline Cadre**, during this unit. Students will be assigned to their **Discipline Cadre**: discipline/subject organized group that can provide further insight for students during times of remediation or revision. (Note: The Discipline Cadre should not be the only peer group that the student has access to, as this cadre will begin to lose potency when grouped together routinely.) Students should also be prompted to connect to a Consultant within their discipline but the student must make the contact, **with** the teacher.

→ 1.1B, 1.C, 1.1E, 1.2A, 2.1A, 2.2B, 2.2C, 3.2A, 4.1B,, 5.1C, 5.1E, 5.3A, 5.4B

→ 1.1B2, 1.C1, 1.1C2, 1.1E1, 1.1E2, 1.2A1, 1.2A2, 2.A1, 2.2C2, 2.2B2, 3.2A1, 4.1B1, 5.1C3, 5.1E1, 5.3A4, 5.4B1, 5.4B2

QUEST Framework	Assignment Details and Schedule
Big Idea 1	<ul style="list-style-type: none"> Body of Knowledge Literature Explorations, All Unit <ul style="list-style-type: none"> Students are given time to search and assimilate information within their body of knowledge. This requires students to invest in their discipline and gain knowledge from a consultant regarding where to look and what can be considered credible. Problem Statement Activity, Week 3 <ul style="list-style-type: none"> Students complete the Problem Statement narrative that helps expose the direction in which they wish to research. Lesson/Activity adapted from the AP Research Workshop Handbook and Resources (2015), p. 31
Big Idea 2	<ul style="list-style-type: none"> CRAAP Method Lesson, Week 2 <ul style="list-style-type: none"> Students are provided the CRAAP/PAARC method that allows them to distinguish what should be used for their research and what sources lack the efficacy of the subject. Students may wish to use RAVEN as a segway into this method. Lesson/Activity adapted from the AP Research Workshop Handbook and Resources (2015), p. 41
Big Idea 3	<ul style="list-style-type: none"> Ontology Lesson, Week 2 <ul style="list-style-type: none"> Students discuss and consider the ways in which an individual arrives at ontology and epistemology. Lesson/Activity adapted from the AP Research Workshop Handbook and Resources (2015), p. 22/23
Big Idea 4	<ul style="list-style-type: none"> Hypotheses, Assumptions, and Definitions Lesson, Week 3 <ul style="list-style-type: none"> Students discuss and define the three elements that can illustrate differences in perspective when approaching a topic. Students discuss the lenses that are used when becoming a critically reflective practitioner. Lesson/Activity adapted from the AP Research Workshop Handbook and Resources (2015), p. 46/47
Big Idea 5	<ul style="list-style-type: none"> Color Wheel of Understanding Activity, Week 2 <ul style="list-style-type: none"> Students, within discipline oriented groups, create the guidelines that are generally accepted within their discipline-based research community. Lesson/Activity adapted from the AP Research Workshop Handbook and Resources (2015), p. 24 Poster Presentation, Week 4 <ul style="list-style-type: none"> Students present a poster comprising of their initial research interest and information gathered. They present to the class, gain peer feedback, and continue to adjust their research approach. Lesson/Activity adapted from the AP Research Workshop Handbook and Resources (2015), p. 57/58 PREP Portfolio Reflections, All Unit <ul style="list-style-type: none"> Students consistently, at least once per week, reflect on their growth within their topic/discipline through pointed questioning by the educator.

Unit 2: Collating Sources and Literature Review,

The foci of this unit: 1) collating sources to understand the larger body of knowledge 2) understanding the purpose and learning to compose a literature review. Students must complete an annotated bibliography within this unit and compose an initial draft of their literature review that may be revised during other points in the year.*

- Students will still be organized within their discipline cadre. However, isolating students solely in this grouping may cause issues with critical thinking (aka students get tired of talking to the same people about the same topics). Consider cross-discipline pairings to reduce monotony, particularly during revision processes.

→ 1.1D, 1.4D, 2.2B, 3.1A, 4.1A, 4.3A, 5.1A, 5.1B, 5.3A, 5.4A

→ 1.1D2, 1.1D3, 1.4D1, 1.4D2, 2.2B6, 3.1A1, 3.1A2, 4.1A2, 4.3A1, 4.3A2, 4.3A3, 4.3A4, 4.3A5, 5.1A2, 5.1B2, 5.1B3, 5.1B4, 5.3A1, 5.4A1

QUEST Framework	Assignment Details and Schedule
Big Idea 1	<ul style="list-style-type: none"> • Meta Understanding of Literature Review, Week 5 <ul style="list-style-type: none"> ◦ Students will use the They Say/I Say activity to understand the need for extensive discovery in the Body of Knowledge ◦ Lesson/Activity adapted from the AP Research Workshop Handbook and Resources (2015), p. 61
Big Idea 2	<ul style="list-style-type: none"> • Annotated Bibliography, Week 6 <ul style="list-style-type: none"> ◦ Students will be required to complete a comprehensive annotated bibliography in which they acknowledge the use of at least 20 sources that have developed their awareness in their discipline's Body of Knowledge.
Big Idea 3	<ul style="list-style-type: none"> • They Say/I Say Activity (Meta Learning Activity), Week 5 <ul style="list-style-type: none"> ◦ Students complete the activity regarding "Hopping on Board" the larger discussion that is already taking place about their topic. This lesson is geared to prepare students to understand the importance of joining an already existing discipline with the hopes to contribute ◦ Lesson/Activity adapted from the AP Research Workshop Handbook and Resources (2015), p. 61
Big Idea 4	<ul style="list-style-type: none"> • Literature Review Composition, Week 7 <ul style="list-style-type: none"> ◦ Students take the opportunity to draft their literature review for their academic paper. This will be revised once their Methods unit is underway, but students will begin to consider how to communicate the value and benefits of their research.
Big Idea 5	<ul style="list-style-type: none"> • Literature Review Composition, Week 8 <ul style="list-style-type: none"> ◦ Students will provide valuable feedback to their peers regarding the development of their literature reviews.

<ul style="list-style-type: none"> • PREP Portfolio Created in Drive <ul style="list-style-type: none"> ◦ Reflections • Annotated Bibliography • Literature Review Composition 	<ul style="list-style-type: none"> • Week 6, Monday: Research Question Due • Week 6, Wednesday: Annotated Bib Due • Week 8, Wednesday: Literature Review Due
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*Ethical Research Practices:

Prior to entering Unit 3: Methods, students will discuss to understand the priorities of ethics in research (Week 8). Students will be required to analyze how and why ethics are crucial to the credibility and safety of the research and their research subjects. This concept is an on-going discussion within the first two units of the AP Research curriculum as well.

Unit 3: Understanding and Developing Research Methods,

The foci of this unit: 1) develop student knowledge of Methods 2) assist students in developing their own methods based on previously revised research questions. Students must complete their methods prior to developing an IRB(Institutional Review Board) or Inquiry Proposal Form(CED, 57). Ethical research will be a consistent topic of discussion in this unit.*

- 1.3D, 1.4B, 1.4B, 1.4D, 2.2B, 4.1B, 5.1A, 5.1B, 5.1D, 5.1F, 5.3A, 5.4B
- 1.3B4, 1.4B1, 1.4B3, 1.4B5, 1.4B6, 1.4B7, 1.4C1, 1.4D1, 2.2B2, 4.1B1, 5.1A[R], 5.1B1, 5.1B2, 5.1B3, 5.1B4, 5.1D2, 5.1F1, 5.3A3, 5.4B1

QUEST Framework	Assignment Details and Schedule
Big Idea 1	<ul style="list-style-type: none"> Types of Inquiry Activity, Week 9 <ul style="list-style-type: none"> Students use the Approach, Design, and Method of Inquiry activity to clearly delineate how they can explore their question further. Lesson/Activity adapted from the AP Research Workshop Handbook and Resources (2015), p. 74-75
Big Idea 2	<ul style="list-style-type: none"> Quantitative versus Qualitative Validity Activities, Week 10 <ul style="list-style-type: none"> Students will engage in a dialogue to discuss how biases and other issues within research can be exposed by their selection of research methods.
Big Idea 3	<ul style="list-style-type: none"> Choose a Method Activity, Week 10 <ul style="list-style-type: none"> Students will complete the activity provided to begin to understand how an individual's question may conflict with the validity of their method plan. Lesson/Activity adapted from the AP Research Workshop Handbook and Resources (2015), p. 76-77
Big Idea 4	<ul style="list-style-type: none"> Methods in the Discipline, Week 10 <ul style="list-style-type: none"> Students will reference their annotated bibliography (composed in Unit 2) to help propel the veracity of their own method under construction.
Big Idea 5	<ul style="list-style-type: none"> Elevator Pitch (Method Addition), Week 12 <ul style="list-style-type: none"> Students add their methods to their elevator pitch to present to the class. Individuals provide feedback for this assessment. Lesson/Activity adapted from the AP Research Workshop Handbook and Resources (2015), p. 57-59

<ul style="list-style-type: none"> PREP Portfolio Created in Drive <ul style="list-style-type: none"> Reflections Methods Composition 	<ul style="list-style-type: none"> Week 12: Composition of Methods Due
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*Students will discuss the ethics of their research in multiple assignments during this unit. In the PREP reflection for Week 10, this topic will be directly addressed, as well as a lesson in Week 11 (AP Research Workshop Handbook, 86-87). In Week 12, students will also take a class period to validate the ethics of their own methods, as well as the ethics of their peers' methods.

Unit 4: Independent Data Collection and Analysis,

The foci of this unit: 1) allowing students time to collect data 2) begin composing their findings within their research paper 3) understanding the functionality of data analysis and statistics. Students should be familiar with their specific methods selected from Unit 3 and should take this time to realize their method within their research plan. This unit includes IRB and Proposal composition and submission. Data analysis methods will also be taught during this unit to smoothly transition into data interpretation during Unit 5.

- Monday: Reflect about plan for the week/ Independent Time
 - Tuesday: Data Analysis Discussion
 - Wednesday: Data Analysis Discussion
 - Thursday: Data Analysis Discussion
 - Friday: Present progress from the week to Discipline Cadre, peer input/ Independent Time
- : 1.3B, 1.4B, 1.4D, 2.2B, 4.1A, 4.1B, 4.4A, 5.1A, 5.1B, 5.1C, 5.1E, 5.3A, 5.3C, 5.4A, 5.4B
- 1.3B4, 1.4B1, 1.4B6, 1.4B8, 1.4B9, 1.4D1, 2.2B2, 4.1A1, 4.1A5, 4.1B1, 4.4A1, 5.1A1[R], 5.1A2, 5.1B1, 5.1B2, 5.1B3, 5.1B4, 5.1C2, 5.1E3, 5.3A1, 5.3A3, 5.3C1, 5.3C2, 5.4A1, 5.4B1

QUEST Framework	Assignment Details and Schedule
Big Idea 1	<ul style="list-style-type: none"> • Proposal Submission, Week 14 <ul style="list-style-type: none"> ◦ Students must organize and defend their choices regarding their research plan.
Big Idea 2	<ul style="list-style-type: none"> • Descriptive and Inferential Data Analysis Types, Week 15 <ul style="list-style-type: none"> ◦ Students will need to discuss how they plan to approach the formation of their data analysis. They must ensure that this analysis is free of all possible bias.
Big Idea 3	<ul style="list-style-type: none"> • Modeling the Composition of Data Collection, Week 21 <ul style="list-style-type: none"> ◦ Students will use current patterns, found in their body of knowledge, to create their own representations of their data. Students will be required to assess if particular data representation models clearly represent the intentions of the researcher.
Big Idea 4	<ul style="list-style-type: none"> • Unit 4 Reflections and Peer Consultations, All Unit <ul style="list-style-type: none"> ◦ Students will be asked to respond to pointed questions requiring the acknowledgement of their own biases and assumptions regarding the application of their method and their data analysis plan. They will then consult others for verification.
Big Idea 5	<ul style="list-style-type: none"> • Proposal/IRB Composition, Week 14 <ul style="list-style-type: none"> ◦ Students will compose their proposal and IRB form for submission to our school IRB committee. ◦ Lesson/Activity adapted from the AP Research Course and Exam Description (2015), p. 57

<ul style="list-style-type: none"> • PREP Portfolio Created in Drive <ul style="list-style-type: none"> ◦ Reflections • Proposal/IRB Submission <ul style="list-style-type: none"> ◦ Includes detailed depiction of Methods for Research • Presentations to Peers regarding Data Collection Process • Data Collection Composition 	<ul style="list-style-type: none"> • Week 14, Thursday: IRB/Proposal Due • Week 20: Last week for Data Collection • Week 22: Data Collection Composition Due
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Unit 5: Data Interpretation and Final Composition,

The foci of this unit: 1) provide time for data analysis 2) provide time for data interpretation and conclusions 3) provide time for students to finalize their academic research papers. Students will already have the tools from Unit 4 for data analysis and interpretation; however, remediation may need to be provided to those groups struggling with data analysis and statistics. Limited amounts of independent feedback are possible at this point; therefore, student Discipline Cadres and peer revision will be paramount for the success of students.

- : 4.1A, 4.2A, 4.4A1, 4.5A, 5.1A, 5.1C, 5.1D, 5.3A, 5.4A, 5.4B
 → 4.1A6, 4.1A7, 4.1A8, 4.2A2, 4.4A1, 4.5A1, 5.1A[R]1, 5.1C2, 5.1D1, 5.3A2, 5.4A1, 5.4B1

QUEST Framework	Assignment Details and Schedule
Big Idea 1	<ul style="list-style-type: none"> Students have moved out of this framework section and are focused on the elements of communication/production at this point.
Big Idea 2	<ul style="list-style-type: none"> Students have moved out of this framework section and are focused on the elements of communication/production at this point.
Big Idea 3	<ul style="list-style-type: none"> Students have moved out of this framework section and are focused on the elements of communication/production at this point.
Big Idea 4	<ul style="list-style-type: none"> Analyzing Data/ Data “Crunch”, Week 23 <ul style="list-style-type: none"> Students begin to analyze their own data in an effort to articulate their findings. General instruction and feedback will be provided.
Big Idea 5	<ul style="list-style-type: none"> Breaking Down/Organizing Post-Research Components of Academic Paper, Week 24 <ul style="list-style-type: none"> Students will be introduced and allowed to develop their understandings of their academic paper’s post-research components. This activity will lead to reflection and the creation of the final components of their papers. Guided/Unguided Peer Revision, All Unit <ul style="list-style-type: none"> Students will be given multiple opportunities to engage in peer revision inside and outside their Discipline Cadre. Some of these opportunities will use a more direct, guided revision process and others will be open ended. When creating guided revisions, use of the rubric language is essential.

<ul style="list-style-type: none"> PREP Portfolio in Drive <ul style="list-style-type: none"> Reflections Data Findings and Analysis Composition Conclusions and Future Directions Composition 	<ul style="list-style-type: none"> <ul style="list-style-type: none"> March 23/24: Academic Paper Due
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Unit 6: Oral Presentation,

The foci of this unit: 1) prepare students for their oral presentation and defense 2) provide practice and revision time for oral presentations. Students will be guided through best practices regarding the composition and delivery of a presentation, as well as fielding pointed questioning from a panel. Students will be given time to create their presentations and use peer review to refine the visual and oral elements of their work.

→ 4.1A, 5.1D, 5.1E, 5.1F, 5.4A, 5.4B

→ 4.1A5, 5.1D2, 5.1E1, 5.1E3, 5.1F1, 5.1F2, 5.4A1, 5.4B1, 5.4B2

QUEST Framework	Assignment Details and Schedule
Big Idea 1	<ul style="list-style-type: none"> Students have moved out of this framework section and are focused on the elements of communication/production at this point.
Big Idea 2	<ul style="list-style-type: none"> Students have moved out of this framework section and are focused on the elements of communication/production at this point.
Big Idea 3	<ul style="list-style-type: none"> Students have moved out of this framework section and are focused on the elements of communication/production at this point.
Big Idea 4	<ul style="list-style-type: none"> Presentation Outline Activity, Week 27 <ul style="list-style-type: none"> Students will complete a presentation outline in which they prepare a logical progression of their visual and oral presentation/defense. Building of Visual Presentation, Weeks 28-30 <ul style="list-style-type: none"> Students will be given time to complete their visual presentations. These presentations must progress according to their presentation outline created in Week 27.
Big Idea 5	<ul style="list-style-type: none"> Guided/Unguided Peer Revision of Visual Presentation, All Unit <ul style="list-style-type: none"> Students will be given multiple opportunities to engage in peer revision inside and outside their Discipline Cadre. Some of these opportunities will use a more direct, guided revision process and others will be open ended. When creating guided revisions, use of the rubric language is essential. Mock Presentations in Discipline Cadre, Week 29 <ul style="list-style-type: none"> Students will present their Oral/Visual Presentations to their discipline cadres. This will allow for peer feedback and practice. It is highly encouraged that the presenters organize a way to record their mock presentation for personal reflection purposes.

<ul style="list-style-type: none"> PREP Portfolio Created in Drive <ul style="list-style-type: none"> Reflections Build Visual Presentation Mock Presentations <ul style="list-style-type: none"> Practice for formal presentation 	<ul style="list-style-type: none"> March 23/24: Academic Paper Due April 4th or 11th: Oral Presentations Begin <ul style="list-style-type: none"> Dependent upon class pacing and weather
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Unit 7: Publication of Findings,

The focus of this unit is rewarding the students for their efforts in the course. There are two major options regarding publishing the findings of this course: 1) students may publish within a student journal; 2) students may use this time to create a student manual regarding what they have found important in this course (Top 10s). Students will also be required to complete a formal academic poster for submission to a committee. The top posters will be printed and hung for the following year as models for future AP Research cohorts.

- 1.1C, 1.1D, 1.2A, 4.1B, 5.1C, 5.1E, 5.1F, 5.4B
 → 1.1C3, 1.1D1, 1.2A2, 4.1B1, 5.1C1, 5.1E3, 5.1F1, 5.4B1

QUEST Framework	Assignment Details and Schedule
Big Idea 1	<ul style="list-style-type: none"> AP Research Manual Contribution, Week 34 <ul style="list-style-type: none"> Students decide what information should be provided for students entering the course during following years. They then create a piece for the manual that supports these future AP Research cohorts.
Big Idea 2	<ul style="list-style-type: none"> No activities directly connect to Big Idea 2 during this unit.
Big Idea 3	<ul style="list-style-type: none"> No activities directly connect to Big Idea 3 during this unit.
Big Idea 4	<ul style="list-style-type: none"> No activities directly connect to Big Idea 4 during this unit.
Big Idea 5	<ul style="list-style-type: none"> Submission of Academic Paper to Scholarly Journal, Week 34 <ul style="list-style-type: none"> Students submit their paper to either a student journal or professional journal. Submission of Future Student Support, Week 34 <ul style="list-style-type: none"> See Big Idea 1 Submission of Academic Research Poster for Competition, Week 35 <ul style="list-style-type: none"> Students submit a professional poster that represents their research project. Posters will be reviewed by the school's AP council, and the top posters will be printed and hung in the school.

<ul style="list-style-type: none"> Submission for Journal Publication Submission of Top-Ten or "Tips" for future students of course Submission of Academic Research Poster County Mandated Final 	<ul style="list-style-type: none"> Submission for Publication should be completed prior to Week 35
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