INCLUDES

- Curriculum framework
- Instructional section
- Assessment overview
- Student handouts

AP® Seminar

COURSE AND EXAM DESCRIPTION

Effective
Fall 2024

IMPORTANT INFORMATION ABOUT AP SEMINAR:

Any school can participate in the AP Capstone Diploma Program. As of the 2024-25 school year, no application or sign-up form is required.

Schools that offer AP Seminar or AP Research must ensure that their teachers complete the required summer professional learning prior to teaching either course.

See collegeboard.org/apcapstone for details.

Effective Fall 2024

AP CollegeBoard

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AP® Seminar

COURSE AND EXAM DESCRIPTION

Part of the AP Capstone™ Program

Revised Edition

Effective
Fall 2024

AP COURSE AND EXAM DESCRIPTIONS ARE UPDATED PERIODICALLY

Please visit AP Central (apcentral.collegeboard.org) to determine whether a more recent course and exam description is available.

About College Board

College Board is a mission-driven not-for-profit organization that connects students to college success and opportunity. Founded in 1900, College Board was created to expand access to higher education. Today, the membership association is made up of over 6,000 of the world's leading educational institutions and is dedicated to promoting excellence and equity in education. Each year, College Board helps more than seven million students prepare for a successful transition to college through programs and services in college readiness and college success—including the SAT® and the Advanced Placement® Program. The organization also serves the education community through research and advocacy on behalf of students, educators, and schools.

For further information, visit **collegeboard.org**.

AP Equity and Access Policy

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 underrepresented. Schools should make every effort to ensure their AP classes reflect the diversity of their student population. 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.

Fifth Edition

Visit College Board on the web: **collegeboard.org**.

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Preface

This version of the *AP Seminar Course and Exam Description* is effective beginning in fall 2024.

Acknowledgments

College Board would like to acknowledge the following committee members, consultants, and reviewers for their assistance with and commitment to the development of this curriculum and assessment:

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SPECIAL THANKS *John R. Williamson*

About AP

College Board's Advanced Placement® Program (AP®) enables willing and academically prepared students to pursue college-level studies—with the opportunity to earn college credit, advanced placement, or both—while still in high school. Through AP courses in 38 subjects, each culminating in a challenging exam, students learn to think critically, construct solid arguments, and see many sides of an issue—skills that prepare them for college and beyond. Taking AP courses demonstrates to college admission officers that students have sought the most challenging curriculum available to them, and research indicates that students who score a 3 or higher on an AP Exam typically experience greater academic success in college and are more likely to earn a college degree than non-AP students. Each AP teacher's syllabus is evaluated and approved by faculty from some of the nation's leading colleges and universities, and AP Exams are developed and scored by college faculty and experienced AP teachers. Most four-year colleges and universities in the United States grant credit, advanced placement, or both on the basis of successful AP Exam scores; more than 3,300 institutions worldwide annually receive AP scores.

AP Course Development

In an ongoing effort to maintain alignment with best practices in college-level learning, AP courses and exams emphasize challenging, research-based curricula aligned with higher education expectations.

Individual teachers are responsible for designing their own curriculum for AP courses, selecting appropriate college-level readings, assignments, and resources. This course and exam description presents the content and skills that are assessed in the AP Seminar course.

Enrolling Students: Equity and Access

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. 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.

Offering AP Courses: The AP Course Audit

The AP Program unequivocally supports the principle that each school implements its own curriculum that will enable students to develop the understandings and skills described in the course framework.

The AP Program has a short list of curricular and resource requirements that must be fulfilled before a school can label a course "Advanced Placement" or "AP." Schools wishing to offer AP courses must participate in the AP Course Audit, a process through which AP teachers' course materials are reviewed by college faculty. The AP Course Audit was created to provide teachers and administrators with clear guidelines on curricular and resource requirements for AP courses and to help colleges and universities validate courses marked "AP" on students' transcripts. This process ensures that AP teachers' courses meet or exceed the curricular and resource expectations that college and secondary school faculty have established for college-level courses.

The AP Course Audit form is submitted by the AP teacher and the school principal (or designated administrator) to confirm awareness and understanding of the curricular and resource requirements. A syllabus or course outline, detailing how course requirements are met, is submitted by the AP teacher for review by college faculty.

Please visit **collegeboard.org/apcourseaudit** for more information to support the preparation and submission of materials for the AP Course Audit.

How the AP Program Is Developed

The scope of content for an AP course and exam is derived from an analysis of hundreds of syllabi and course offerings of colleges and universities. Using this research and data, a committee of college faculty and expert AP teachers work within the scope of the corresponding college course to articulate what students should know and be able to do upon the completion of the AP course. The resulting course framework is the heart of this course and exam description and serves as a blueprint of the content and skills that can appear on an AP Exam.

The AP Test Development Committees are responsible for developing each AP Exam, ensuring the exam questions are aligned to the course framework. The AP Exam development process is a multiyear endeavor; all AP Exams undergo extensive review, revision, piloting, and analysis to ensure that questions are accurate, fair, and valid, and that there is an appropriate spread of difficulty across the questions.

Committee members are selected to represent a variety of perspectives and institutions (public and private, small and large schools and colleges), and a range of gender, racial/ethnic, and regional groups. A list of each subject's current AP Test Development Committee members is available on **apcentral.collegeboard.org**.

Throughout AP course and exam development, College Board gathers feedback from various stakeholders in both secondary schools and higher education institutions. This feedback is carefully considered to ensure that AP courses and exams are able to provide students with a college-level learning experience and the opportunity to demonstrate their qualifications for advanced placement or college credit.

How AP Exams Are Scored

Please note: The information below is a general overview of how AP Exams are scored. For course specific information, please visit **apcentral.collegeboard.org/courses**.

The exam scoring process, like the course and exam development process, relies on the expertise of both AP teachers and college faculty. While multiple-choice questions are scored by machine, the free-response questions and through-course performance assessments, as applicable, are scored by thousands of college faculty and expert AP teachers. Most are scored at the annual AP Reading, while a small portion is scored online. All AP Readers are thoroughly trained, and their work is monitored throughout the Reading for fairness and consistency. In each subject, a highly respected college faculty member serves as Chief Faculty Consultant and, with the help of AP Readers in leadership positions, maintains the accuracy of the scoring standards. Scores on the free-response questions and performance assessments are weighted and combined with the results of the computer-scored multiple-choice questions, and this raw score is converted into a composite AP score on a 1–5 scale.

AP Exams are **not** norm-referenced or graded on a curve. Instead, they are criterion-referenced, which means that every student who meets the criteria for an AP score of 2, 3, 4, or 5 will receive that score, no matter how many students that is. The criteria for the number of points students must earn on the AP Exam to receive scores of 3, 4, or 5—the scores that research consistently validates for credit and placement purposes—include:

- The number of points successful college students earn when their professors administer AP Exam questions to them.
- The number of points researchers have found to be predictive that an AP student will succeed when placed into a subsequent, higher-level college course.
- Achievement-level descriptions formulated by college faculty who review each AP Exam question.

Using and Interpreting AP Scores

The extensive work done by college faculty and AP teachers in the development of the course and exam and throughout the scoring process ensures that AP Exam scores accurately represent students' achievement in the equivalent college course. Frequent and regular research studies establish the validity of AP scores as follows:

AP Score	Credit Recommendation	College Grade Equivalent
5	Extremely well qualified	A
4	Well qualified	A–, B+, B
3	Qualified	B–, C+, C
2	Possibly qualified	n/a
1	No recommendation	n/a

While colleges and universities are responsible for setting their own credit and placement policies, most private colleges and universities award credit and/or advanced placement for AP scores of 3 or higher. Additionally, most states in the U.S. have adopted statewide credit policies that ensure college credit for scores of 3 or higher at public colleges and universities. To confirm a specific college's AP credit/placement policy, a search engine is available at **apstudent.org/creditpolicies**.

BECOMING AN AP READER

Each June, thousands of AP teachers and college faculty members from around the world gather for seven days in multiple locations to evaluate and score the free-response sections of the AP Exams. Ninety-eight percent of surveyed educators who took part in the AP Reading say it was a positive experience.

There are many reasons to consider becoming an AP Reader, including opportunities to:

- **Bring positive changes to the classroom:** Surveys show that the vast majority of returning AP Readers—both high school and college educators—make improvements to the way they teach or score because of their experience at the AP Reading.
- **Gain in-depth understanding of AP Exam and AP scoring standards:** AP Readers gain exposure to the quality and depth of the responses from the entire pool of AP Exam takers, and thus are better able to assess their students' work in the classroom.
- **Receive compensation:** AP Readers are compensated for their work during the Reading. Expenses, lodging, and meals are covered for Readers who travel.
- **Score from home:** AP Readers have online distributed scoring opportunities for certain subjects. Check **collegeboard.org/apreading** for details.
- **Earn Continuing Education Units (CEUs):** AP Readers earn professional development hours and CEUs that can be applied to PD requirements by states, districts, and schools.

How to Apply

Visit **collegeboard.org/apreading** for eligibility requirements and to start the application process.

AP Classroom, Digital Activation, and AP Digital Portfolio

AP Classroom

AP Classroom is a dedicated online platform designed to support teachers and students throughout their AP experience. The platform provides a variety of powerful resources and tools to provide yearlong support to teachers and students.

AP QUESTION BANK

This online library of real AP Exam questions provides teachers with questions to use in their classrooms. Teachers can create customized tests, and assign them online or on paper. These tests enable students to practice throughout the year.

REQUIRED ONLINE SCORING TRAINING

Each year, AP Capstone teachers must take and pass certification tests in order to submit scores for the presentation components of the performance tasks. This annual training is found in the Professional Learning section of AP Classroom. Optional training modules are also available for other components of the assessment.

Digital Activation

AP teachers, students and coordinators must complete the digital activation process at the start of the school year, which provides access to all AP resources and gathers students' exam registration information online.

While the digital activation process takes a short time for teachers, students, and AP Coordinators to complete, overall it helps save time and provides the following additional benefits:

- **Access to AP resources and supports:** Teachers have access to resources specifically designed to support instruction throughout the school year as soon as activation is complete.
- **Student registration labels:** For each student included in an exam order, schools will receive a set of personalized AP ID registration labels, which replaces the AP student pack. The AP ID connects a student's exam materials with the registration information they provided during digital activation, eliminating the need for preadministration sessions and reducing time spent bubbling on exam day.
- **Targeted Instructional Planning Reports:** AP teachers will get Instructional Planning Reports (IPRs) that include data on each of their class sections automatically rather than relying on special codes optionally bubbled in on exam day.

Note: New AP Capstone teachers must attend required summer professional development and have their AP Course Audit form approved in order to start the digital activation process and gain access to AP Classroom and the AP Digital Portfolio.

AP Digital Portfolio

The deadline for all AP Capstone students to submit written performance tasks as final in the **AP Digital Portfolio** is **April 30 at 11:59 p.m. ET**. Teachers must review final student submissions, score student presentations, and affirm to authenticity in the digital portfolio by **May 10 at 11:59 p.m. ET**. These tasks must be completed by the deadline in order for student work to be sent to College Board for scoring.

Students' submitted performance tasks will be sent for scoring only if the AP coordinator has ordered an AP Seminar or AP Research Exam for them. When students enroll in an AP Seminar or AP Research class section as part of the digital activation process, their enrollment will automatically carry over to the AP Digital Portfolio.

Full instructions for navigating the AP Digital Portfolio are available in the AP Capstone **teacher** and **student** user guides found on AP Central as well as in the Help section within the AP Digital Portfolio.

Digital Submission for AP Capstone

AP Capstone teachers, students, and AP coordinators interact with the AP Digital Portfolio throughout the school year. The diagram below illustrates the roles and major tasks in the process.

Digital Submission for AP Capstone

Completed in My AP Completed in AP Digital Portfolio

1. **AP coordinator** or **AP teacher** signs in to **myap.collegeboard.org** at the startof school year and creates AP Seminar and AP Research class sections. If applicable, the AP coordinator notifies teachers when class sections have been created.
2. **Teachers** sign in to **myap.collegeboard.org** and get the join code for each class section they teach to distribute to students during class.
3. **Students** sign in to **myap.collegeboard.org**
4. **AP coordinator** submits the exam order for all students included in the exam roster in AP Registration and Ordering.
5. **Teacher** creates AP Seminar student teams for team assignments.
6. **Teacher** distributes College Board–provided source material to AP Seminar students.
7. **Students** submit written performance tasks as final in the AP Digital Portfolio no later than April 30 at 11:59 p.m. ET or an earlier deadline set by their teacher. Students will not be able to complete submissions after April 30 at 11:59 p.m. ET.
8. **Teacher** submits scores for student presentations and complete affirmations for required checkpoints in the AP Digital Portfolio by May 10 at 11:59 p.m. ET.
9. **AP coordinator** verifies that all students have submitted their written performance task components as final in the AP Digital Portfolio by April 30 at 11:59 p.m. ET and that teachers have submitted scores for student presentations and complete affirmations for required checkpoints in the digital portfolio by May 10 at 11:59 p.m. ET.
10. Performance tasks and scores for all students that the AP coordinator has ordered an exam for will be automatically submitted to **the AP Program** at the deadline.

About the AP Capstone™ Program

AP Capstone™ is an innovative diploma program from College Board that equips students with the independent research, collaborative teamwork, and communication skills that are increasingly valued by colleges. AP Capstone is built on the foundation of two AP® courses—**AP Seminar** and **AP Research**—and is designed to complement and enhance the in-depth, discipline-specific study experienced in other AP courses.

In AP Seminar, students investigate real-world issues from multiple perspectives, gathering and analyzing information from various sources in order to develop credible and valid evidence-based arguments. AP Seminar is a prerequisite for AP Research. Completing AP Seminar and all its required assessment components is necessary for students to develop the skills to be successful in AP Research. In AP Research, students cultivate the skills and discipline necessary to conduct independent research and inquiry in order to produce and defend their scholarly work.

The AP Capstone program aims to empower students by:

- engaging them with rigorous college-level curricula focused on the skills necessary for successful college completion;
- extending their abilities to synthesize information from multiple perspectives and apply skills in new situations and cross-curricular contexts;
- enabling them to collect and analyze information with accuracy and precision;
- cultivating their abilities to craft, communicate, and defend evidence-based arguments; and
- providing opportunities for them to practice disciplined and scholarly research skills while exploring relevant topics that appeal to their interests and curiosity.

Research Base

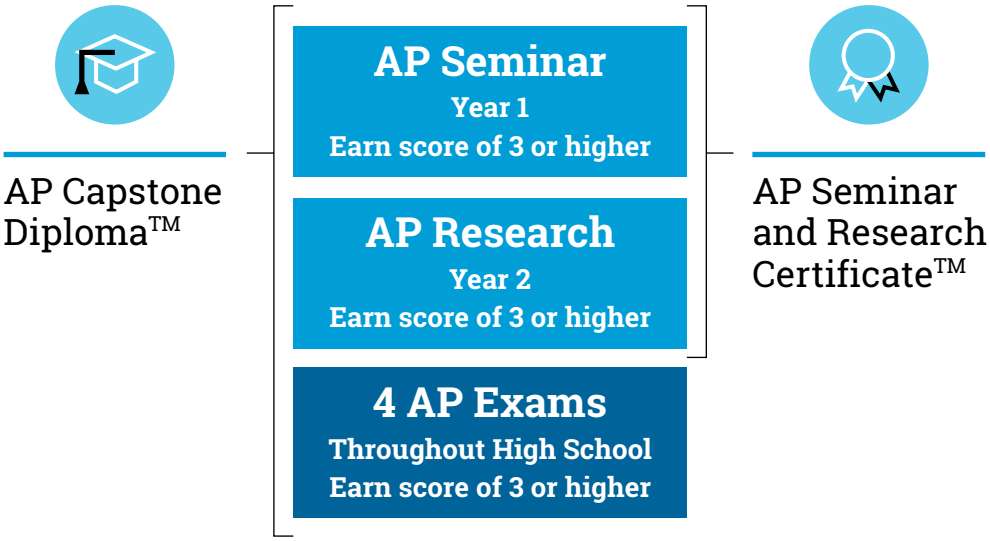
The big ideas and learning objectives in the AP Capstone program reflect the core academic skills needed for college, career, and life readiness identified by leading educational organizations and College Board membership, including the following:

- The American Association of Colleges and Universities (AAC&U), *College Learning for the New Global Century, Essential Learning Outcomes*
- Advanced Placement Program, skills and practices identified in AP courses
- The Partnership for 21st Century Skills (P21), *A Framework for 21st Century Learning*
- Association of College and Research Libraries, *Information Literacy Competency Standards for Higher Education*
- Council of Writing Program Administrators, *Framework for Success in Postsecondary Writing*

The AP Capstone Diploma™ and AP Seminar and Research Certificate™

Students who earn scores of 3 or higher in AP Seminar and AP Research and on four additional AP Exams of their choosing will receive the AP Capstone Diploma™.

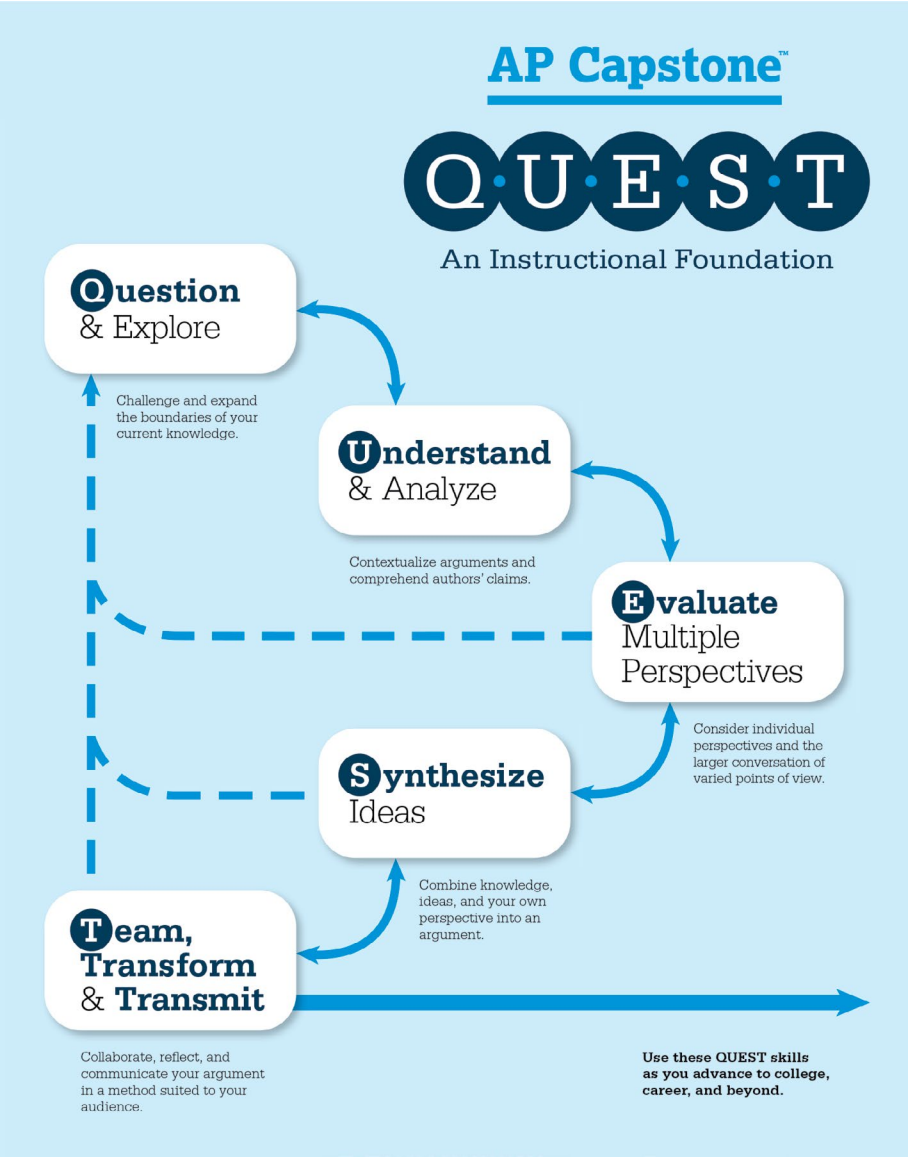
Students who earn scores of 3 or higher in AP Seminar and AP Research but not on four additional AP Exams will receive the AP Seminar and Research Certificate™.



AP Capstone Pedagogical Framework

Overview of the Pedagogical Framework

Throughout the program, students consider and evaluate multiple points of view to develop their own perspectives on complex issues and topics through inquiry and investigation. The AP Capstone program provides students with a framework that allows them to develop, practice, and hone their critical and creative thinking skills as they make connections between various issues and their own lives. Teachers should help students understand that this process is recursive, not linear. The recursive nature of this process allows students to go back and forth between the different stages of inquiry as they encounter new information.



AP Capstone Reasoning Processes

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:

- Situating — being aware of the context of one's own as well as others' perspectives, realizing that individual bias can lead to assumptions;
- Choosing — making intentional and purposeful choices, realizing that choices have both intended and unintended consequences;
- Defending — being able to explain and justify personal choices, logic, line of reasoning, and conclusions; and
- Connecting — seeing intersections within and/or across concepts, disciplines, and cultures.

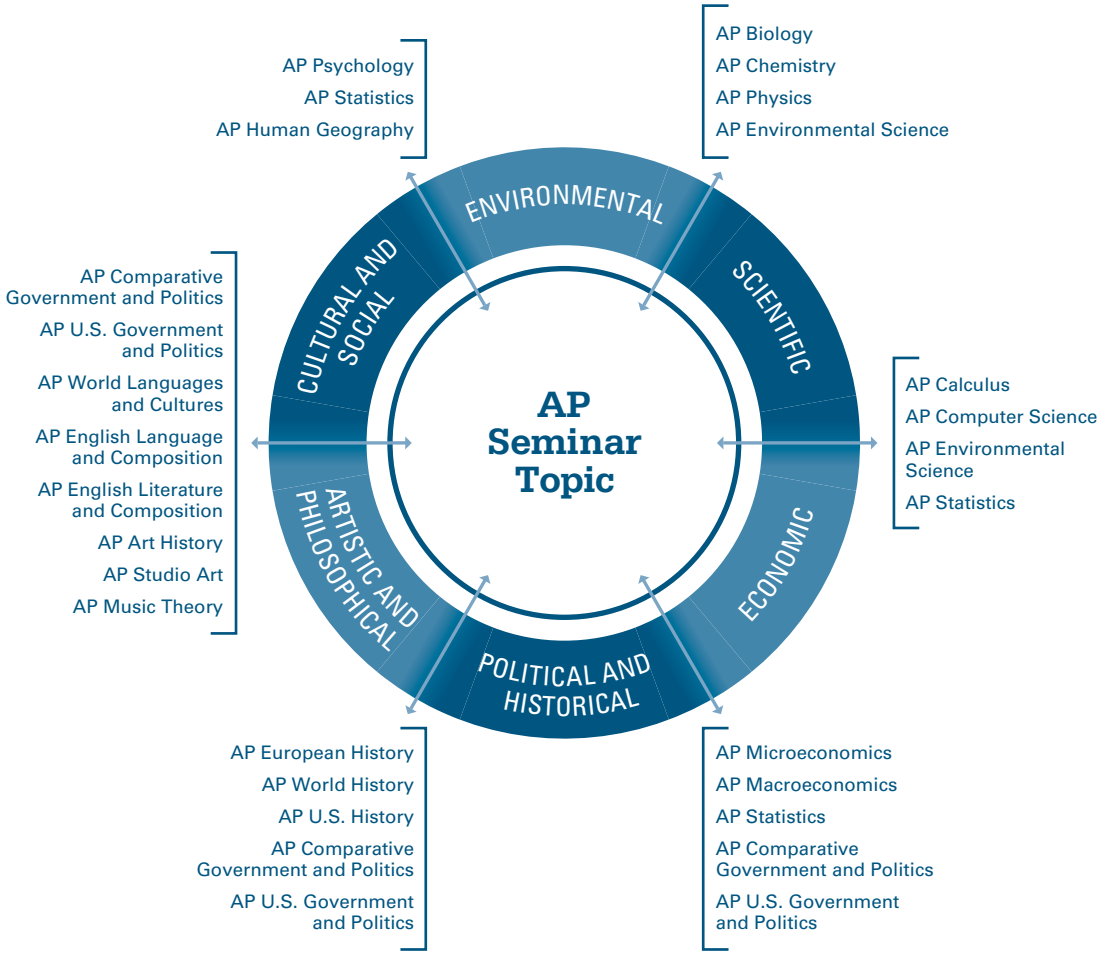
AP Seminar Course Transferable Skills and Proficiencies

The AP Capstone reasoning processes are also embedded in the AP Seminar course transferable skills and proficiencies. The transferable skills and proficiencies are high-level descriptions of the understanding, knowledge, and skills that students should be able to apply in novel situations long after completing the AP Seminar course.

Transferable Skills	Analyze Sources and Evidence	Construct an Evidence-Based Argument	Understand Context and Perspective	Communicate (interpersonal and intrapersonal)
Reasoning Processes	*Situate* *Choose*	*Choose* *Connect* *Defend*	*Situate* *Connect*	*Situate* *Choose* *Defend*
Proficiencies	**UAA Understand and Analyze Argument** Identifying the main idea in arguments, analyzing the reasoning, and evaluating the validity of the conclusions **ESE Evaluate Sources and Evidence** Evaluating the credibility and relevance of sources and the evidence they present	**ESA Establish Argument** Developing a well-reasoned argument clearly connecting the thesis, claims and evidence **SUE Select and Use Evidence** Strategically choosing evidence to effectively support claims	**UAC Understand and Analyze Context** Understanding the complexity of a problem or issue and connecting arguments to the broader context in which they are situated **UAP Understand and Analyze Perspective** Comparing and interpreting multiple diverse perspectives on an issue to understand its complexity	**ENA Engage Audience** Choosing and employing effective written and oral communication techniques, considering audience, context, and purpose **APC Apply Conventions** Choosing and consistently applying an appropriate citation style and effective conventions of writing **COL Collaborate** Working constructively with others to accomplish a team goal or task **REF Reflect** Articulating challenges, successes, and moments of insight that occur throughout the inquiry process

Making Connections within AP

Some teachers may wish to make cross-curricular connections with other AP courses, although there is no specific requirement to do so. The graphic below illustrates possible cross-curricular connections. The AP Seminar course topics can be viewed through different disciplinary lenses which relate to courses in the AP Program. Two additional lenses, Ethical and Futuristic, are not shown in the diagram below but have potential links with many AP courses.



AP Seminar Course Description

AP Seminar is a foundational course that engages students in cross-curricular conversations that explore the complexities of academic and real-world topics and issues by analyzing divergent perspectives. Using an inquiry framework, students practice reading and analyzing articles, research studies, and foundational, literary, and philosophical texts; listening to and viewing speeches, broadcasts, and personal accounts; and experiencing artistic works and performances. Students learn to synthesize information from multiple sources, develop their own perspectives in written essays, and design and deliver oral and visual presentations, both individually and as part of a team. Ultimately, the course aims to equip students with the power to analyze and evaluate information with accuracy and precision in order to craft and communicate evidence-based arguments.

AP Seminar Curricular Requirements

The curricular requirements are the core elements of an AP course. The curriculum framework and supporting documents provided during professional development serve as resources to assist teachers in determining the appropriate level of evidence to include within their syllabi to meet or exceed the requirements. (All AP Seminar teachers must attend College Board AP Seminar intensive training prior to their first year of teaching the AP Seminar course.)

Evidence of the following curricular requirements should be included in the course syllabus developed by the teacher and submitted to College Board for review and approval.

- Students explore the complexities of one or more themes by making connections within, between, and/or among multiple cross-curricular areas and by exploring multiple perspectives and lenses (e.g., cultural and social, artistic and philosophical, political and historical, environmental, economic, scientific, futuristic, ethical) related to those themes.
- Students develop and apply discrete skills identified in the learning objectives of the enduring understandings within the following five big ideas:
  - Question and Explore
  - Understand and Analyze
  - Evaluate Multiple Perspectives
  - Synthesize Ideas
  - Team, Transform, and Transmit
- Students gain a rich appreciation and understanding of issues through the following activities:
  - reading articles and research studies;
  - reading foundational, literary, and philosophical texts;
  - viewing and listening to speeches, broadcasts, and/or personal accounts;
  - and experiencing artistic works and performances.
- Students develop an understanding of ethical research practices and the AP Capstone™ Policy on Plagiarism and Falsification or Fabrication of Information.
- Students work collaboratively with a team to identify, investigate, analyze, and evaluate a real-world or academic problem or issue; consider and evaluate alternatives or options; propose one or more solutions or resolutions; and present and defend the argument for their solutions through a multimedia presentation.
- Students work independently to identify a research question based on provided stimulus material; research the issue; analyze, evaluate, and select evidence to develop an argument; present and defend a conclusion; and produce a multimedia presentation to be delivered to their peers.

AP Seminar Curriculum Framework

Overview of the Curriculum Framework

Based on the Understanding by Design (Wiggins and McTighe) model, this curriculum framework is intended to provide a clear and detailed description of the course requirements necessary for student success. This conceptualization will guide the development and organization of learning outcomes from general to specific, resulting in focused statements about content knowledge and skills needed for success in the course. The curriculum framework contains the following structural components:

- The course is organized around five **big ideas**. Tied to each big idea are several **essential questions**. These are open-ended questions that encourage students to think deeply about a topic, ask additional questions and investigate solutions, and develop the deeper conceptual understanding that the course seeks to foster.
- Within each big idea are several **enduring understandings**. These are the long-term takeaways related to the big ideas that a student should have after exploring the content and skills. These understandings are expressed as generalizations that specify what students will come to understand about the key concepts in the course. Enduring understandings are numbered to correspond to each big idea.
- Linked to each enduring understanding are the corresponding **learning objectives**. The learning objectives articulate what students need to be able to do in order to develop the enduring understandings. The learning objectives will become targets of assessment for the course. Learning objectives are numbered to correspond with the appropriate big ideas and enduring understandings.
- For each of the learning objectives, **essential knowledge** statements describe the facts and basic concepts that a student should know and be able to recall in order to demonstrate mastery of the learning objective. Essential knowledge components are numbered to correspond with the appropriate big ideas, enduring understandings, and learning objectives.

Big Idea 1: Question and Explore

Inquiry and investigation begin when students encounter information about ideas, complex issues and problems that stimulates their intellectual curiosity. They then continue the research process by developing a critical question about one or more of those complex issues or ideas. Seeking answers to such questions requires exploration of numerous, often competing perspectives; the context surrounding those perspectives; and the reliability and credibility of the perspectives. Through this exploration, students begin to develop their own perspectives, rather than simply accept those of others. They consider the purpose of their research — what is supposed to be achieved and why. Ideally, they also develop additional questions that lead to further inquiry. The intrinsic value of asking and answering questions cannot be overstated. Giving students the opportunity to dig deeper and feed their curiosity makes for meaningful discoveries and discussions.

ESSENTIAL QUESTIONS

- How does the context of a problem or issue affect how it is interpreted or presented?
- How might others see the problem or issue differently?
- What questions have yet to be asked?
- What voices or perspectives are missing from my research?
- What do I want to know, learn, or understand?
- How does my research question shape how I go about trying to answer it?
- What information do I need to answer my question?
- What keywords should I use to search for information about this topic?

Enduring Understandings (Students will understand that . . .)	**Learning Objectives** (Students will be skilled at . . .)	**Essential Knowledge** (Students will know that . . .)
EU 1.1: Personal interest and intellectual curiosity inspire investigation of topics or **issues** that may or may not be clearly defined. A well-crafted investigation explores the complexity of an issue or topic. Further **inquiry** can lead to unexpected **conclusions**, **resolutions**, innovations, or **solutions**.	**LO 1.1A:** Contextualizing and identifying the complexities of a problem or issue.	**EK 1.1A1:** Examining the **perspectives** and ideas of others often leads to questions for further investigation. Inquiry begins with narrowing scope of interest, identifying a problem or issue and its origins within that scope, and situating the problem or issue in a larger **context**.
	LO 1.1B: Posing questions and seeking out answers that reflect multiple, divergent, or contradictory perspectives.	**EK 1.1B1:** Effective research questions lead to an examination taking into account the complexity of a problem or issue. **EK 1.1B2:** The inquiry process allows one to draw upon curiosity and imagination to engage with ideas or explore approaches to **complex issues**.

Note: The first time words from the glossary are used in the curriculum framework tables, they appear in bold blue text. The full glossary begins on page 118.

Enduring Understandings (Students will understand that . . .)	**Learning Objectives** (Students will be skilled at . . .)	**Essential Knowledge** (Students will know that . . .)
EU 1.2: Strengthening understanding of a concept or issue requires questioning existing ideas, using what is known to discover what is not known, and making connections to prior knowledge.	**LO 1.2A:** Retrieving, questioning, organizing, and using prior knowledge about a topic.	**EK 1.2A1:** Understanding comes not only through collection of information but also from a variety of other factors (e.g., experience, external sources, cultural context, **assumptions**). **EK 1.2A2:** A variety of strategies (e.g., brainstorming, concept mapping, prewriting, exploration of space, drafting) can be used to illustrate, organize, and connect ideas. **EK 1.2A3:** Inquiry confirms or challenges one's existing understandings, assumptions, beliefs, and/or knowledge.
EU 1.3: The investigative process is aided by the effective organization, management, and selection of resources and information. Appropriate technologies and tools enable the scholar to become more efficient, productive, and credible.	**LO 1.3A:** Accessing and managing information using effective strategies.	**EK 1.3A1:** Information used to address a problem may come from various **secondary sources** (e.g., articles, other studies, analyses, reports) and/or **primary sources** (e.g., original **texts** and works, material culture, or personally collected data such as from experiments, surveys, questionnaires, interviews, observations, personal narratives). **EK 1.3A2:** Online databases (e.g., EBSCO, ProQuest, JSTOR, Google Scholar) and libraries catalog and house secondary and some primary sources. **EK 1.3A3:** Advanced search tools, Boolean logic, and key words allow scholars to refine, focus, and/or limit their searches based on a variety of factors (e.g., date, peer-review status, type of publication).

Enduring Understandings (Students will understand that . . .)	Learning Objectives (Students will be skilled at . . .)	Essential Knowledge (Students will know that . . .)
EU 1.4: The relevance and credibility of the source of information is determined by the context of its use.	**LO 1.4A:** Evaluating the relevance and **credibility** of the source of information and data in relation to the inquiry.	**EK 1.4A1:** The scope and purpose of one's research and the credibility of sources affects the generalizability and the **reliability** of the conclusions. **EK 1.4A2:** Credibility of **evidence** depends on use of sources and data that are relevant and reliable (current, authoritative). **EK 1.4A3:** Determining the credibility of a source requires considering and evaluating the reputation and credentials of the **author**, publisher, site owner, and/or sponsor; understanding and evaluating the author's perspective and research methods; and considering how others respond to their work. Scholarly articles are often peer reviewed, meaning the research has been reviewed and accepted by disciplinary experts.
EU 1.5: There are multiple ways to investigate questions, problems, and issues. Methods should be aligned with the purpose of the inquiry.	**LO 1.5A:** Identifying the information needed for the context of the inquiry.	**EK 1.5A1:** The way the problem is posed, situated, framed, or contextualized will guide the inquiry process and influence the type of information needed and the appropriate method of gathering it.

Big Idea 2: Understand and Analyze

Developing understanding starts with comprehension of the concepts and perspectives under examination. Being able to summarize by identifying and explaining the salient ideas in a text is foundational. When students summarize and explain an author's perspective to others, they are building understanding. Students must comprehend a perspective or argument in order to be able to analyze it. That analysis — including consideration of the author's point of view and purpose, the reasoning and details the author selects, develops, and conveys, and the way the author chooses to situate those details — in turn leads to greater understanding of the topic or concept being explored. Students evaluate the validity of an argument by examining the strength of the line of reasoning and the quality of the evidence the author uses. This level of understanding allows students to recognize the implications and predict the consequences of an argument.

ESSENTIAL QUESTIONS

- What strategies will help me comprehend a text?
- What is the argument's main idea and what reasoning does the author use to develop it?
- Why might the author view the issue this way?
- What biases may the author have that influence his or her perspective?
- Does this argument acknowledge other perspectives?
- How do I know if a source is trustworthy?
- What are the implications of these arguments?
- How does this conclusion impact me and my community? Or my research?

Enduring Understandings (Students will understand that . . .)	**Learning Objectives** (Students will be skilled at . . .)	**Essential Knowledge** (Students will know that . . .)
EU 2.1: Authors express their ideas, perspectives, and/or **arguments** through their works. The first step in evaluating an author's perspective or argument is to comprehend it. Such comprehension requires reading, viewing, listening, and thinking critically.	**LO 2.1A:** Employing appropriate reading strategies and reading critically for a specific purpose.	**EK 2.1A1:** Reading critically means reading closely to identify the main idea, **tone**, assumptions, context, perspective, **line of reasoning**, and evidence used. **EK 2.1A2:** Strategies active readers use to preview and prioritize a written text include skimming, scanning, rereading, and questioning. **EK 2.1A3:** Strategies active readers use to make meaning from texts include annotating, note-taking, highlighting, and reading aloud. **EK 2.1A4:** Perspectives are shared through written, spoken, visual, or performance texts. A perspective includes the writer's attitude/tone regarding the subject and is expressed through an argument.

Enduring Understandings (Students will understand that . . .)	**Learning Objectives** (Students will be skilled at . . .)	**Essential Knowledge** (Students will know that . . .)
	LO 2.1B: Summarizing and explaining a text's main idea or aim while avoiding faulty generalizations and oversimplification.	**EK 2.1B1:** The main idea of an argument is often expressed in the thesis statement, **claim**, or conclusion, or implied throughout a work. **EK 2.1B2:** Artistic works (e.g., painting, film, music, dance) convey a perspective. Analysis of a work's context, subject, structure, style, and aesthetic is critical to understanding its aims.
EU 2.2: Authors choose evidence to shape and support their arguments. Individuals evaluate the line of reasoning and evidence to determine to what extent they believe or accept an argument.	**LO 2.2A:** Explaining and analyzing the logic and line of reasoning of an argument.	**EK 2.2A1:** Authors use reasons to support their arguments. The line of reasoning is composed of one or more claims justified through evidence. **EK 2.2A2:** An argument's line of reasoning is organized based on the argument's purpose (e.g., to show causality, to define, to propose a solution). **EK 2.2A3:** **Inductive** reasoning uses specific observations and/or data points to identify trends, make generalizations, and draw conclusions. **Deductive** reasoning uses broad facts or generalizations to generate additional, more specific conclusions about a phenomenon. **EK 2.2A4:** A lack of understanding of the complexities of an argument (tone, **implications**, **limitations**, nuance, context) can lead to oversimplification and/or generalization. **EK 2.2A5:** Effective arguments acknowledge other arguments and/or respond to them with **counterarguments** (e.g., **concession**, **refutation**, **rebuttal**).

Enduring Understandings (Students will understand that . . .)	**Learning Objectives** (Students will be skilled at . . .)	**Essential Knowledge** (Students will know that . . .)
	LO 2.2B: Evaluating the relevance and credibility of evidence used to support an argument, taking context into consideration.	**EK 2.2B1:** An argument's context (time and purpose) and situation (in relation to other arguments) inform its interpretation. **EK 2.2B2:** Writers use **qualitative** and/or **quantitative** evidence (e.g., facts, data, observations, predictions, analogies, explanations, opinions) to support their claims. Evidence has varying degrees of **validity**. **EK 2.2B3:** Authors strategically include evidence to support their claims. **EK 2.2B4:** Writers appeal to (or possibly manipulate) readers through a variety of strategies and techniques (e.g., language, authority, qualifiers, fallacies, emphasis). **EK 2.2B5:** Evidence may be used to identify and explain relationships (comparative, causal, or correlational) and/or patterns and trends. **EK 2.2B6:** Credibility is compromised when authors fail to acknowledge and/or consider the limitations of their conclusions, opposing views or perspectives, and/or their own **biases**.
	LO 2.2C: Evaluating the validity of an argument.	**EK 2.2C1:** An argument is valid when there is logical **alignment** between the line of reasoning and the conclusion.
EU 2.3: Arguments have implications and consequences.	**LO 2.3A:** Connecting an argument to broader issues by examining the implications of the author's claim. **LO 2.3B:** Evaluating potential resolutions, conclusions, or solutions to problems or issues raised by an argument.	**EK 2.3A1:** The implications and consequences of arguments may be intended or unintended. **EK 2.3B1:** Arguments are significant and have real-world impact because they can influence behavior (e.g., call one to action, suggest logical next steps).

Big Idea 3: Evaluate Multiple Perspectives

Understanding the complexity of an issue, idea, or problem requires students to compare and contrast different perspectives. These multiple perspectives, which may support, oppose, compete with, or otherwise vary from one another, come together to create the conversation on the issue. Students must consider the biases and assumptions behind those perspectives in order to evaluate their relevance and importance in the conversation. Evaluating multiple perspectives and arguments allows students to better understand the complexities of an issue or topic.

ESSENTIAL QUESTIONS

- What patterns or trends can be identified among the arguments about this issue?
- What are the implications and/or consequences of accepting or rejecting a particular argument?
- How can I connect the multiple perspectives? What other issues, questions, or topics do they relate to?
- How can I explain contradictions within or between arguments?
- From whose perspective is this information being presented, and how does that affect my evaluation?

Enduring Understandings (Students will understand that . . .)	**Learning Objectives** (Students will be skilled at . . .)	**Essential Knowledge** (Students will know that . . .)
EU 3.1: Different perspectives often lead to competing and alternative arguments. The complexity of an issue emerges when people bring these differing, multiple perspectives to the conversation.	**LO 3.1A:** Identifying, comparing, and interpreting multiple perspectives on or arguments about an issue.	**EK 3.1A1:** An individual's perspective is influenced by his or her background (e.g., experiences, culture, education), assumptions, and worldview, as well as by external sources. **EK 3.1A2:** Perspectives are not always oppositional; they may be concurring, complementary, or competing.
EU 3.2: Not all arguments are equal; some arguments are more credible/valid than others. Through evaluating others' arguments, one's own arguments can be situated within a larger conversation.	**LO 3.2A:** Evaluating alternate, opposing, or competing perspectives or arguments, by considering their implications and limitations.	**EK 3.2A1:** Critical thinkers are aware that some arguments may appeal to emotions, core values, personal biases and assumptions, and logic. **EK 3.2A2:** When evaluating multiple perspectives or arguments, consideration must be given to how one's own personal biases and assumptions can influence one's judgment.

Big Idea 4: Synthesize Ideas

Once enough information is gathered and evaluated, students synthesize their accumulated knowledge, emerging ideas, and perspectives to form conclusions of their own. In order to situate their perspectives within the larger conversation, students must consider other perspectives and points of view. Strong arguments have a clear purpose and are grounded in a logical line of reasoning supported by carefully chosen and relevant evidence. Effective arguments analyze the material and develop a perspective on it. Information from other sources should not stand in for students' own thinking. The goal is for students to think critically about the information and then add to, not simply repeat, the ideas of others. Building arguments on the ideas of others recognizes and acknowledges their perspectives while also establishing one's unique voice in the conversation.

ESSENTIAL QUESTIONS

- How do I connect and analyze the evidence in order to develop an argument and support a conclusion?
- What line of reasoning and evidence would best support my argument? Is my reasoning logical?
- Are there other conclusions I should consider?
- What am I taking for granted? How do I acknowledge and account for my own biases and assumptions?
- What is the best way to acknowledge and attribute the work of others that was used to support my argument?
- How can I avoid committing plagiarism?

Enduring Understandings (Students will understand that . . .)	**Learning Objectives** (Students will be skilled at . . .)	**Essential Knowledge** (Students will know that . . .)
EU 4.1: Scholarly works convey perspectives and demonstrate effective lines of reasoning that have been selected for the intended audience, purpose, and situation.	**LO 4.1A:** Formulating a well-reasoned argument, taking the complexities of the problem or issue into consideration.	**EK 4.1A1:** Effective arguments use reason and evidence to convey a perspective, **point of view**, or some version of the truth that is stated or implied in the **thesis** and/or conclusion. **EK 4.1A2:** Effective arguments are supported and unified by carefully chosen and connected claims, reasons, and evidence. **EK 4.1A3:** Qualifiers place limits on how far a claim may be carried. Effective arguments acknowledge these limits, increasing credibility by reducing overgeneralization or oversimplification. **EK 4.1A4:** Effective arguments acknowledge other arguments and/or respond to them with counterarguments (e.g., concession, refutation, rebuttal).

Enduring Understandings (Students will understand that . . .)	Learning Objectives (Students will be skilled at . . .)	Essential Knowledge (Students will know that . . .)
		EK 4.1A5: The line of reasoning is a clear, logical path leading the audience through the reasons to a conclusion. **EK 4.1A6:** The logic and reasoning of an argument may be deductive (claim followed by evidence) or inductive (evidence leads to a conclusion). **EK 4.1A7:** A line of reasoning is organized based on the argument's purpose (e.g., to show causality, to evaluate, to define, to propose a solution). **EK 4.1A8:** Claims and supporting evidence are arranged (e.g., spatially, chronologically, order of importance) to convey reasoning and relationship (e.g., comparative, causal, correlational). **EK 4.1A9:** The same argument may be organized, arranged, or supported in multiple ways depending on audience and context.
EU 4.2: Scholars responsibly and purposefully engage with the evidence to develop a compelling argument or aesthetic rationale.	**LO 4.2A:** Interpreting, using, and synthesizing qualitative and/or quantitative data/information from various perspectives and sources (e.g., primary, secondary, print, non-print) to develop and support an argument.	**EK 4.2A1:** Evidence can be collected from print and non-print sources (e.g., libraries, museums, archives), experts, or data gathered in the field (e.g., interviews, questionnaires, observations). **EK 4.2A2:** Evidence is used to support the claims and reasoning of an argument. Compelling evidence is sufficient, accurate, relevant, current, and credible to support the conclusion. **EK 4.2A3:** Evidence is strategically chosen based on context, purpose, and audience. Evidence may be used to align an argument with authority; to define a concept, illustrate a process, or clarify a statement; to set a mood; to provide an example; to amplify or qualify a point. **EK 4.2A4:** The evidence selected and attributed contributes to establishing the credibility of one's own argument.

Enduring Understandings (Students will understand that . . .)	**Learning Objectives** (Students will be skilled at . . .)	**Essential Knowledge** (Students will know that . . .)
	LO 4.2B: Providing insightful and cogent **commentary** that links evidence with claims.	**EK 4.2B1:** Commentary connects the chosen evidence to the claim through interpretation or inference, identifying patterns, describing trends, and/or explaining relationships (e.g., comparative, causal, correlational).
EU 4.3: Responsible participation in the scholarly community requires acknowledging and respecting the prior findings and contributions of others.	**LO 4.3A:** Attributing knowledge and ideas accurately and ethically, using an appropriate citation style.	**EK 4.3A1:** Accurate and ethical attribution enhances one's credibility. **EK 4.3A2:** **Plagiarism** is a serious offense that occurs when a person presents another's ideas or words as his or her own. Plagiarism may be avoided by acknowledging sources thoroughly and accurately. **EK 4.3A3:** Source material should be introduced, integrated, or embedded into the text of an argument. **EK 4.3A4:** Quoted and paraphrased material must be properly attributed, credited, and cited following a style manual. Quoting is using the exact words of others; paraphrasing is restating an idea in one's own words. **EK 4.3A5:** Academic disciplines use specific style guides for citing and attributing sources (e.g., APA, MLA, Chicago, AMA).
EU 4.4: Forming one's own perspective and reaching new understandings involve innovative thinking and synthesis of existing knowledge with personally generated evidence.	**LO 4.4A:** Extending an idea, question, process, or product to innovate or create new understandings.	**EK 4.4A1:** Innovative solutions and arguments identify and challenge assumptions, acknowledge the importance of content, imagine and explore alternatives, and engage in reflective skepticism.
EU 4.5: Arguments, choices, and solutions present intended and unintended opportunities, and consequences.	**LO 4.5A:** Offering resolutions, conclusions, and/or solutions based on evidence considering limitations and implications.	**EK 4.5A1:** When proposing a solution, the advantages and disadvantages of the options and alternatives should be weighed against the goal within its context.

Big Idea 5: Team, Transform, and Transmit

Collaboration, communication, and reflection are skills that provide opportunities for students to develop their learning. When collaborating, students draw upon their own strengths and the strengths of teammates to achieve a common goal.

An argument is effectively communicated when its purpose is clear, it is tailored to a specific audience and context, and it is conveyed through a medium appropriate and appealing to the intended audience. Adhering to standard language conventions and engaging delivery techniques establishes a writer's or speaker's credibility with his or her audience.

Whether working alone or in a group, students reflect on their work and learning processes, which can lead to personal growth as well as even more effective inquiry, learning, and collaboration.

ESSENTIAL QUESTIONS

- How can I best appeal to and engage my audience?
- What is the best medium or genre through which to engage my audience?
- What common misconceptions might my audience have?
- How might I adapt my argument for different audiences and situations?
- How might my communication choices affect my credibility with my audience?
- What contributions can I offer to a team?
- What is the benefit of revision?
- How can I benefit from reflecting on my own work?

Enduring Understandings (Students will understand that . . .)	**Learning Objectives** (Students will be skilled at . . .)	**Essential Knowledge** (Students will know that . . .)
EU 5.1: How a perspective or argument is presented affects how people interpret or react to it. The same perspective or argument may be developed and presented differently depending on audience, purpose, and context.	**LO 5.1A:** Planning, producing, and presenting a cohesive argument, considering audience, context, and purpose.	**EK 5.1A1:** An argument may include the following elements: ▸ Introduction: engages the audience by providing background and/or context ▸ Thesis: conveys the main idea of an argument ▸ Reasons, evidence, and commentary: provide support for the argument ▸ Counterargument, concession, refutation, and rebuttal: acknowledge and/or respond to opposing arguments ▸ Conclusion: synthesizes reasoning, considers possible implications for the future, and ties back to the introduction ▸ Bibliography: identifies works cited

Enduring Understandings (Students will understand that . . .)	Learning Objectives (Students will be skilled at . . .)	Essential Knowledge (Students will know that . . .)
		EK 5.1A2: Coherence is achieved when the elements and ideas in an argument flow logically and smoothly. Transitions are used to move the audience from one element or idea to another by illustrating the relationship between the elements or ideas.
	LO 5.1B: Adhering to established **conventions** of grammar, usage, style, and mechanics.	**EK 5.1B1:** A writer expresses tone or attitude about a topic through word choice, sentence structure, and imagery. **EK 5.1B2:** Effective sentences create variety, emphasis, and interest through structure, agreement of elements, placement of modifiers, and consistency of tense. **EK 5.1B3:** Precision in word choice reduces confusion, wordiness, and redundancy. **EK 5.1B4:** Spelling and grammar errors detract from credibility.
	LO 5.1C: Communicating information through appropriate media using effective techniques of design.	**EK 5.1C1:** Effective organizational and design elements (e.g., headings, layout, illustrations, pull quotes, captions, lists) may aid in audience engagement and understanding by calling attention to important information and/or creating emotional responses in the audience. Ineffective use or overuse of these elements disrupts audience engagement and understanding. **EK 5.1C2:** Data and other information can be presented graphically (e.g., infographics, graphs, tables, models) to aid audience understanding and interpretation. **EK 5.1C3:** Effective communication requires choosing appropriate media (e.g., essay, poster, oral presentation, documentary, research report/thesis) according to context, purpose, and audience.
	LO 5.1D: Adapting an argument for context, purpose, and/or audience.	**EK 5.1D1:** Arguments can be adapted by strategically selecting and emphasizing information considering audience, situation, medium, and purpose.

Enduring Understandings (Students will understand that . . .)	Learning Objectives (Students will be skilled at . . .)	Essential Knowledge (Students will know that . . .)
	LO 5.1E: Engaging an audience by employing effective techniques of delivery or performance.	**EK 5.1E1:** Speakers vary elements of delivery (e.g., volume, tempo, movement, eye contact, **vocal variety**, energy) to emphasize information, convey tone, and engage their audience.
EU 5.2: Teams are most effective when they draw on the diverse perspectives, skills, and backgrounds of team members to address complex, open-ended problems.	**LO 5.2A:** Providing individual contributions to overall collaborative effort to accomplish a task or goal.	**EK 5.2A1:** Knowing and communicating one's strengths and challenges to a group allows one's contributions to be more effective.
	LO 5.2B: Fostering constructive team climate, resolving conflicts, and facilitating the contributions of all team members to address complex, open-ended problems.	**EK 5.2B1:** Teams are built around tasks. Low-risk teambuilding activities and simulations enhance a team's performance. **EK 5.2B2:** Teams function at their best when they understand the diversity of their social–cultural perspectives, talents, and skills. **EK 5.2B3:** Teams function at their best when they practice effective interpersonal communication, consensus building, conflict resolution, and negotiation. **EK 5.2B4:** Effective teams consider the use of online collaborative tools.
EU 5.3: Reflection increases learning, self-awareness, and personal growth through identification and evaluation of personal conclusions and their implications.	**LO 5.3A:** Reflecting on and revising their own writing, thinking, and creative processes.	**EK 5.3A1:** Reflection is an ongoing and recursive process in inquiry, often leading to changes in understanding. Strategies for reflection may include journal writing, self-questioning, drawing, exploration of space, and/or guided contemplation. **EK 5.3A2:** Learning requires practice through an iterative process of thinking/rethinking, vision/revision, and writing/rewriting.
	LO 5.3B: Reflecting on experiences of collaborative effort.	**EK 5.3B1:** Reflection acknowledges the impact of actions on both the group and individual contributions, noting the reasons for such actions, assumptions made, and whether or not such actions and assumptions hindered or helped the achievement of the group's and individuals' tasks.

AP Seminar Instructional Approaches

Organizing the Course

INQUIRY AND THE ACADEMIC CONVERSATION

While the AP Seminar course develops core skills for academic success, it also challenges students to learn to think critically about complex issues and form their own perspectives about them. For this reason, the course is organized around topics, themes, or issues chosen at the local level. Helping students move from reviewing literature to building an argument through inquiry is a key goal of the AP Seminar course.

Critical inquiry focuses on the creation of new ideas, perspectives, and arguments. Teachers must help students understand that the research process is not simply about collecting evidence or facts and then piecing them together. Instead, the research process is about *inquiry* — asking questions and coming to solutions and conclusions through serious thinking and reflection. The researcher seeks relevant information in articles, books, and other sources and develops an informed perspective built upon, but not merely derivative of, the ideas in the examined material. As a result, the research process is recursive, meaning that the researcher regularly revisits ideas, seeks new information when necessary, and reconsiders and refines the research questions, topic, and/or approach.

Facilitating students' entrance into academic or real-world conversations about complex issues is another key goal of the AP Seminar course. AP Seminar provides the forum for students to examine multiple, diverse perspectives on issues in order to better understand and appreciate their complexity. Students' cultural backgrounds and experiences provide a rich foundation from which to begin. By considering and evaluating the multiple perspectives of others, students develop their own individual perspectives and add their personal voices to the larger conversation.

All in all, the AP Seminar course aims to build independent, critical thinkers by empowering students to develop the skills and traits necessary for future academic study.

COURSE CONTENT

Topics and Themes

Teachers have the flexibility to choose one or more appropriate themes that allow for deep interdisciplinary exploration based on:

- Concepts or issues from other AP courses
- Student interests
- Local and/or civic issues
- Academic problems or questions
- Global or international topics

Possible Themes

These themes are possible starting points. Within these themes, issues can be identified for exploration and investigation.

- Aesthetics
- Belief
- Communication
- Courage
- Culture
- Democracy
- Discovery
- Discrimination
- Diversity
- Education
- Environment
- Evolution
- Food
- Freedom
- Government
- Health
- Home
- Identity
- Immigration
- Innovation
- Intelligence
- Justice
- Language
- Leisure
- Liberty
- Media
- Modeling
- Myth
- Networks
- Opportunity
- Patterns
- Peace
- Perception
- Place
- Power
- Protest
- Representation
- Revolution
- Rights and responsibilities
- Social media
- Space
- Sustainability
- Technology
- Theory
- Traditions
- Transformation
- Utopia
- War
- Wealth and poverty
- Work

Multiple Perspectives and Interdisciplinary Connections

Exploring different points of view and making connections across disciplines are fundamental components of the AP Seminar experience. Students consider each topic through a variety of lenses and from multiple perspectives, many of which are divergent or competing. Analyzing topics through multiple lenses aids in interdisciplinary understanding and helps students gain a rich appreciation for the complexity of important issues. Teachers should encourage students to explore a topic through several of the following lenses:

- Cultural and social
- Artistic and philosophical
- Political and historical
- Environmental
- Economic
- Scientific
- Futuristic
- Ethical

As the AP Program engages students in college-level work, the AP Seminar course may include perspectives that could be considered controversial, including references to ethnicity, nationality, religion, politics, race, dialect, sexuality, gender, or class. AP Seminar requires students to have the level of maturity and skill to thoughtfully consider and analyze diverse perspectives. The inclusion of topics, readings, texts, and other source material is not intended as an endorsement by College Board of the content, ideas, or values expressed in the material.

Texts

Because people share their perspectives through many different types of media, teachers and students are encouraged to draw upon a wide variety of texts. These texts can include printed and online articles, speeches, interviews, and personal narratives, artistic works and performances, or other kinds of texts — anything that conveys a perspective and can be examined.

When selecting texts for study, teachers should challenge students to engage with and analyze complex and scholarly sources. Helping students with the identification of scholarly materials requires a discussion of peer review, which differentiates scholarly from nonscholarly sources in an academic, research community. Students should be invited to find and contribute texts for study, providing them opportunities to make connections of their own.

Access to a variety of print and online style guides, writing and argumentation handbooks, databases, and other reference materials is essential to equip students and teachers with the tools necessary for research and communication. The AP Capstone program does not require or specify a specific style guide. However, students should maintain the conventions of a single style guide in an individual project.

ORGANIZATIONAL MODELS

AP Seminar can be organized in a variety of ways to best address student interests, state and/or country and district goals and requirements, and local school traditions and culture. The following table illustrates some possible organizational models.

AP Seminar Model	Description	Example Courses
Thematic Survey	Themes are selected based on teacher and student interest. The themes may be linked with overarching focus or they may be more loosely connected. Interdisciplinary connections are made within each theme and issues are examined through multiple lenses and perspectives.	**Civic Engagement** Themes are selected by the teacher to support the school's service learning initiative. The units use essential questions to engage students with community issues and challenges: › Democracy: Does my civic engagement make a difference? › Sustainability: What impact do I have? › Traditions: Do local traditions encourage or hinder community progress? › Health: How do my choices affect our future? **Student Interest** Students are given a list of 10 possible themes by the teacher and asked to rate them. The four highest-rated themes are used for the course: › Social networks and individual privacy › Stereotypes in media › Food supply and demand › The youth revolution

AP Seminar Model	Description	Example Courses
Disciplinary Focus	The course content is grounded in a specific discipline. Interdisciplinary connections are made to the topics of study.	**Science** This course is offered as an elective in science. The interdisciplinary units connect scientific study with real-world sustainability issues: › Marine debris › Renewable energy › Food scarcity › Greenhouse gas emissions › LEED certification **Arts** This course is offered to students who have an interest or area of emphasis in the arts. The selected themes allow students to examine common issues that intersect the various arts disciplines through multiple lenses: › Aesthetics and Interpretation: What is beauty and who decides? › Culture and Context: How does culture and context influence art's creation? › Transformation and Innovation: How do new forms of art come about? › Myth and Pattern: How does one work of art influence another? Are works of art universal?
Thematic Survey Linked to AP Anchor Course	AP Seminar students are concurrently enrolled in another common AP course, allowing for team teaching and interdisciplinary units.	**AP Seminar: American Studies** Students are concurrently enrolled in AP U.S. History, allowing for cross-curricular connections between the two courses: › Place and Frontiers: Relationships between humans and their environment › Belief and Values: Perspectives on faith and religion › Revolution and Freedom: Historical ideas of protest and solidarity › Identity and Expansion: Diverse views about U.S. expansion, citizenship, and the American dream › Wealth and Poverty: Social and cultural topics and perspectives about current issues

AP Seminar Model	Description	Example Courses
Interdisciplinary Courses	All course topics are connected and cross disciplinary boundaries.	The two example courses listed here are modeled on courses offered as part of the Thinking Matters program at Stanford University. **AP Seminar: Sustainability and Collapse** Students explore how people have lived with nature over time and how different ways of life have come under pressure. Using fictional and historical texts, students consider definitions of nature from different historical, literary, cultural, and scientific perspectives and examine how these conceptions of nature impact the way we think of what it means to live sustainably. **AP Seminar: Networks** Students examine and consider how ecological, revolutionary, digital, and social networks are used to understand the natural world, historical change, and social lives. Students will consider networks from the perspectives of a biologist, a computer scientist, a historian and a social scientist.

DISCUSSION TECHNIQUES

Discussion is an essential instructional method in the AP Seminar course because it helps students identify and understand multiple perspectives and deepen their own understanding of the topics being studied. Effective discussion goes beyond summary and comprehension in that it requires students to actively grapple with others' ideas as they formulate their own perspectives on an issue. Some discussion strategies are listed in the following table.

Strategy	Purpose	Definition
Socratic Seminar	To help students arrive at a new understanding by asking questions that clarify; challenge assumptions; probe perspective and point of view; question facts, reasons, and evidence; or examine implications and outcomes.	A focused discussion in which students engage with open-ended questions tied to a specific topic or text. The discussion continues with student responses and, when needed, additional open-ended questions that allow students to express their ideas and engage in complex thinking.
Debate	To provide students with an opportunity to collect and orally present evidence supporting the affirmative and negative arguments of a proposition or issue.	The presentation of an informal or formal argumentation that defends a claim with reasons, while others defend different claims about the same topic or issue. The goal is to debate ideas without attacking the people who defend those ideas.
Jigsaw	To have students summarize and present information to others in a way that facilitates an understanding of a text (or multiple texts) or issue without having each student read the text in its entirety; by teaching others, they become experts.	Each student in a group reads a different text or different passage from a single text, taking on the role of "expert" on what was read. Students share the information from that reading with students from other groups and then return to their original groups to share their new knowledge.

Strategy	Purpose	Definition
Fishbowl	To provide students with an opportunity to engage in a formal discussion and to experience the roles of both participant and active listener; students also have the responsibility of supporting their opinions and responses using specific evidence.	Some students form an inner circle and model appropriate discussion techniques while an outer circle of students listens, responds, and evaluates.
Shared Inquiry	To allow a teacher to lead a deep discussion of a text and encourage a diversity of ideas to emerge as students think deeply and share interpretations.	Students read a provocative text and are asked interpretative questions (questions for which there are no predetermined "right" answers). Students offer different answers and debate one another, supporting their positions with specific evidence from the text.
Discussion Group	To allow students to gain new understanding of or insight into a text or issue by listening to multiple perspectives.	Students engage in an interactive, small-group discussion, often with an assigned role (e.g., questioner, summarizer, facilitator, evidence keeper) to consider a topic, text, question, etc.
Debriefing	To solidify and deepen student understanding.	A facilitating discussion that leads to consensus understanding or helps students identify the key conclusions or takeaways.

Teaching the Skills

The focus of AP Seminar is on skill development: students practice, refine, and master the skills critical for academic success. The curriculum framework identifies the learning objectives and essential knowledge that address the core skills listed below in more detail. As teachers create instructional units, they should carefully plan so that skills are developmentally sequenced and appropriate scaffolding is provided. The table below illustrates representative instructional strategies that may be used to help students develop these core skills.

Core Skill Area	Description	Representative Instructional Strategies
Critical Thinking and Reasoning	The thinking process of analyzing, interpreting, synthesizing, and evaluating perspectives. Thinking strategies used in critical thinking include: › comparing and/or contrasting › identifying patterns and trends › explaining relationships (comparative, causal, correlational)	**Using a graphic organizer:** Using a visual system for organizing multiple ideas, relationships, perspectives, and/or arguments and their supporting evidence. Examples include Venn diagrams, flowcharts, mind maps, etc. **Note-taking:** Recording, in a concise format, important or relevant information from a text.

Core Skill Area	Description	Representative Instructional Strategies
Critical Reading	The strategic process of discovering ideas and information in a text. Critical reading strategies include: › contextualizing › questioning assumptions › identifying bias and implications › making inferences › making connections	**Close reading:** Carefully reading, rereading, marking, and annotating a passage — word by word, line by line, and sentence by sentence. **Marking the text:** Selecting text by highlighting, underlining, and/or annotating for specific components, such as main idea, assumptions, evidence, etc. **Summarizing, paraphrasing, retelling:** Restating, in the student's own words, essential information expressed in a text. **Using metacognitive markers:** Responding to a text with a system of cueing marks such as a question mark for questions, an exclamation point for reactions, an asterisk for comments about the text, and underlining to signal key ideas. **Previewing:** Examining a text's structure, features, layout, etc. prior to reading. **Questioning the text:** Developing questions about a text while reading it. **Using a Think-aloud:** Talking through a difficult text or task by using a form of metacognition whereby the student expresses how he or she has made sense of the text or task. **Chunking the text:** Breaking a text into smaller, more manageable units of sense (e.g., words, sentences, paragraphs) by numbering, separating phrases, drawing boxes, etc.
Inquiry and Research	The process of discovering new understandings or ideas. Inquiry and research strategies include: › identifying a problem or issue › determining the best strategy to address the problem or issue › gathering evidence › drawing and supporting a conclusion	**I-Search paper:** A personal research paper about a topic that is important to the student. Usually less formal than a traditional research paper, an I-Search paper tells the story of the writer's personal search for information, as well as what the writer learned about the topic. **Service learning:** Linking classroom-based contexts with field-based "experiential learning" within the community. Students gain direct experience of issues they are studying in the curriculum and ongoing efforts to analyze and address problems in the community. Students are given an opportunity to apply what they are learning in real-world settings and to reflect in a classroom setting on their service experiences.

Core Skill Area	Description	Representative Instructional Strategies
		WebQuest: An inquiry-oriented lesson format in which most or all of the information that learners work with comes from the Web. **Source mining:** Reviewing the bibliographies of research studies or articles on a topic to see which names or works are referenced repeatedly to get an overview of key scholars or sources in the field. **Annotated bibliography:** A bibliography that includes a brief summary of each source and a commentary about its usefulness to the inquiry along with the source's citation. **Question formulation technique:** The teacher provides a stimulus from which students openly brainstorm questions; students then categorize the questions as either open-ended or closed-ended, work on improving them, prioritize them, use them, and reflect on their use.
Argumentation	The process of making a claim and developing a line of reasoning supported by evidence. Critical components of argumentation include: › thesis or question development › developing a line of reasoning › making claims › selecting evidence and attributing its use › providing commentary › considering other perspectives › drawing a conclusion › attention to grammar, usage, and mechanics	**Socratic seminar:** A focused discussion in which students engage with open-ended questions tied to a specific topic or text. The discussion continues with student responses and, when needed, additional open-ended questions that allow students to express their ideas and engage in complex thinking. **Debate:** The presentation of an informal or formal argumentation that defends a claim with reasons, while others defend different claims about the same topic or issue. The goal is to debate ideas without attacking the people who defend those ideas. **Outlining/Reverse outlining:** Using a system of numerals and letters to identify relationships between key points and supporting evidence and to ensure an appropriate balance of ideas and a coherent line of reasoning. This process can be done prior to the writing process and/or at the end (in reverse) when students are revising and editing their work.

Core Skill Area	Description	Representative Instructional Strategies
Communicating	The process of conveying a clear message in a way that engages and appeals to a specific audience. Techniques that may be used to emphasize ideas and engage an audience include: › eye contact › vocal variety (tempo, inflection) › emphatic gestures › movement › appropriate visuals	**Peer review:** Students provide structured review of each other's presentations according to a set of established criteria or guidelines (e.g., comments must not be personal; comments must be constructive with suggestions for improvement). **Videotaping for self-evaluation and reflection:** Individual students review recordings of their own presentations with guided reflection questions focusing on specific techniques. **Practice modeling:** The teacher models for the class presentation techniques for emphasizing ideas and engaging an audience (eye contact, gestures, use of voice, etc.). Students then practice using those techniques and gain feedback from their peers.
Collaboration	The process of working with others to accomplish a shared task or goal or solve a problem. Strategies for collaboration include: › individual role and contribution › consensus building › conflict resolution	**Teambuilding activities:** Warm-up activities in which group members work together to solve a small puzzle or problem, building or strengthening relationships and rapport before engaging in the main task. **Collective determination of group norms:** Students discuss in small groups what they think should be the group norms (the rules that define acceptable and unacceptable behavior within groups). They then engage in an all-class discussion on the various rules proposed and come to a consensus as to the final set of rules to be implemented for all groups. This process allows students to have an active role in designing course policies as well as establish a safe space for collaboration and communication, which may help to increase buy-in. **Assigning roles:** Assigning roles (e.g., facilitator, timekeeper, recorder, presenter) to individual group members for a particular topic or investigation and then switching the roles so that students get to experience as many as possible.

AP Capstone™ Policy on Plagiarism and Falsification or Fabrication of Information

Participating teachers shall inform students of the consequences of plagiarism and instruct students to ethically use and acknowledge the ideas and work of others throughout their course work. 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 Task. In AP Seminar, a team of students that fails to properly acknowledge sources or authors on the Team Multimedia Presentation 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 Task. In AP Seminar, a team of students that incorporates falsified or fabricated information in the Team Multimedia Presentation will receive a group score of 0 for that component of the Team Project and Presentation.

AP Capstone Policy on Use of Generative Artificial Intelligence (AI)

DEFINITION OF GENERATIVE AI IN AP CAPSTONE COURSES

Generative AI tools use predictive technology to produce new text, charts, images, audio, video, etc. This includes not only ChatGPT and similar Large Language Models (LLMs), but also many writing assistants or plug-ins that are built on this or similar AI technologies.

POLICY ON ACCEPTABLE GENERATIVE AI USE IN AP CAPSTONE COURSES

Generative AI tools must be used ethically, responsibly, and intentionally to support student learning, not to bypass it. Accordingly, all performance tasks submitted in AP Seminar and AP Research must be the student's own work. While students are permitted to use generative AI tools consistent with this policy, their use is optional and not mandatory.

Students can use generative AI tools as optional aids for exploration of potential topics of inquiry, initial searches for sources of information, confirming their understanding of a complex text, or checking their writing — but not rewriting — for grammar and tone. However, students must read primary and secondary sources directly, perform their own analysis and synthesis of evidence, and make their own choices on how to communicate effectively both in their writing and presentations. Students may not use generative AI tools to write or create their assignments for them. It remains the student's responsibility to engage deeply with credible, valid sources and integrate diverse perspectives when working on the performance tasks. Students must complete interim "checkpoints" with their teacher to demonstrate genuine engagement with the tasks.

The following table describes what constitutes acceptable use of generative AI at different phases of the work to complete the performance tasks.

Phase of Work	Acceptable Use	Not Acceptable Use
Exploring ideas to develop and refine an area of inquiry	Using generative AI tools to get a sense of existing debates on an issue, potential sub-topics, or what is generally already widely known about a topic.	Taking the output of generative AI tools uncritically, such as using AI to generate a research question or thesis, without engaging with the actual research or relying solely on generative AI as a source of information about a topic
Finding sources	› Using generative AI to find authors, organizations, publications, or sources that may be pertinent to the area of inquiry, so that the student can then locate and read those perspectives directly. › Asking for recommendations on related sources to further explore the topic or address gaps in research. **NOTE:** Not all AI tools are the same in terms of the likelihood they will provide output with credible sources. For example, AI-powered search engines for research databases draw from vetted sources, whereas ChatGPT does not necessarily differentiate. Students must review output with a skeptical, critical eye to be sure any suggested sources are real, credible, and relevant to their inquiry.	Using a list of sources generated by AI without going to the original sources and reviewing the content.
Summarizing and/or interpreting sources	Using generative AI to help develop understanding of complex texts by: › Requesting help with understanding complex vocabulary or sentence structures in a source. › Asking for clarification on a confusing concept or passage in a source. **NOTE:** Students should always read the original text of the sources they intend to use to ensure they are accurately understanding and utilizing the evidence from those sources in their work	› Generating a summary or paraphrasing of the source instead of reading it. › Requesting direct quotes or citations from a source to use as evidence without independently identifying them. › Copying and pasting AI generated source summaries into the final draft.
Synthesizing ideas and information from sources into a literature review, report, or argument	No acceptable use. **NOTE:** Students will be asked questions in either their PREP-based in-progress meetings (AP Research) or in the checkpoints (AP Seminar) to ensure they have done this work themselves.	Asking generative AI to: › Compare or contrast sources and/or generate a review of literature. › Synthesize common or contrasting elements from within a source or across multiple sources. › Develop statements or paragraphs that put sources in conversation

Phase of Work	Acceptable Use	Not Acceptable Use
Developing an aligned method for their Research **(AP Research only)**	Summarizing commonly used methods in discipline-specific fields or reviewing benefits and drawbacks of different generic methods or methodologies. **NOTE:** Students will be asked questions in their PREP-based in-progress meetings (AP Research) to ensure that they have done this work themselves.	Using generative AI to determine the appropriate method for an individual student's research and/or providing rationales for a specific method.
Producing, summarizing and/or interpreting data **(AP Research only)**	No acceptable use. **NOTE:** Students will be asked questions in their PREP-based in-progress meetings (AP Research) to ensure that they have done this work themselves.	› Using generative AI to generate data (this would count as falsified and/or fabricated data). *The only exception would be if use of generative AI tools is the subject of the inquiry. In this case, using generative AI to generate data would be part of the method.* › Using AI to summarize or discuss their results or data.
Developing displays of data **(AP Research only)**	Using generative AI to create charts/graphs or other representations of data collected and assembled by the student.	Using generative AI to produce or generate the data itself. *See exception noted above.*
Drafting or outlining a paper	Seeking guidance on general best practices in how to structure a research paper, essay, or report **NOTE:** Students will be asked questions (on the reasoning underpinning their choices for structure and content) in either their PREP-based in-progress meetings (AP Research) or the checkpoints (AP Seminar) to ensure that they have done this work themselves.	› Asking generative AI to produce an outline or draft of a specific paper. › Requesting generative AI to write all or part of the paper. › Using writing generated by AI in the final draft.
Revising a paper	› Using spell or grammar checkers. › Asking for feedback on style and tone (students must make deliberate choices on what feedback to incorporate).	› Accepting AI-generated suggestions for revisions of written work without critically evaluating such contributions. › Incorporating into student submissions new sections of text suggested by generative AI.
Creating Citations / Bibliography	› Seeking guidance on how to cite or check citations. › Generating a draft of the bibliographic listing of citations or checking the format of a student-generated draft of the bibliographic listing of citations.	› Using AI to generate citations without having directly studied the original sources. › Relying on generative AI to create the bibliographic listing of citations without then checking the accuracy of the format.

Phase of Work	Acceptable Use	Not Acceptable Use
Developing Presentations	› Seeking general guidance on effective presentations. › Generating initial ideas for key points, sequence, or visuals for presentations.	› Uncritically using AI to produce the key points, visuals, or structure for presentations. › Using AI to generate a script that is memorized or read for the presentation.
Preparing for Oral Defense	No acceptable use.	Using AI to generate possible answers to potential oral defense questions (and memorizing or reading them).

REQUIRED CHECKPOINTS AND AFFIRMATIONS

To ensure students are not using generative AI to bypass work, students must complete interim "checkpoints" with their teacher to demonstrate genuine engagement with the tasks. **AP Seminar and AP Research students will need to complete the relevant checkpoints successfully to receive a score for their performance tasks. Teachers must affirm, to the best of their knowledge, that students completed the checkpoints authentically in the AP Digital Portfolio. Failure to complete the checkpoints will result in a score of zero on the associated task**.

- In AP Seminar, teachers assess the authenticity of student work based on checkpoints that take the form of short conversations with students during which students make their thinking and decision-making visible (similar to an oral defense). These checkpoints should occur during the sources and research phase (IRR and IWA), and argument outline phase (IWA only).
- In AP Research, students must complete "checkpoints" in the form of in-progress meetings and work in the Process and Reflection Portfolio (PREP).

AP Seminar and AP Research teachers are also required to affirm, to the best of their knowledge, that the student's final submission is authentic student work.

College Board reserves the right to investigate submissions where there is evidence of the inappropriate use of generative AI as an academic integrity violation and request from students copies of their interim work for review.

Bridging from the AP Seminar Course to the AP Research Course

To prepare AP Seminar students to enter AP Research, the next course in the AP Capstone program, teachers should provide students with a preview of the skills, goals, and timelines of the AP Research course and how it builds upon yet differs from AP Seminar. In AP Research, students further the skills they acquired in AP Seminar by learning research methodology, employing ethical research practices, and generating, analyzing, and synthesizing evidence to come to a new understanding.

Upon completion of the AP Seminar End-of-Course Exam, students who will continue on to the AP Research course may also be given the opportunity to:

- Consider potential topics and questions to spark their interest in engaging in an individual research project
- Research potential expert advisers to guide them in the planning and development of their project
- Engage in summer experiences that provide exposure to their research interests

In schools that permit students to begin the AP Research course in the summer, the AP Seminar and AP Research course instructors should provide AP Research students with additional instruction, assignments, and avenues for continued communication to guide them through the research planning process during the summer months.

AP Seminar Assessment Overview

Students are assessed with two through-course performance tasks and one end-of-course exam. All three assessments are summative and will be used to calculate a final AP score (using the 1–5 scale) for AP Seminar.

- **Team Project and Presentation — 20%**
- **Individual Research-Based Essay and Presentation — 35%**
- **End-of-Course Exam (2 Hours) — 45%**

AP Seminar Performance Task 1: Team Project and Presentation

Note: Detailed instructions for students are provided as a handout at the end of this CED (see the section "Reproducibles for Students")

Weight: 20% of the AP Seminar score

Recommended Completion Date: February 28

Student Submission Deadline: **April 30, 11:59 p.m. ET**

Note: Teachers must carefully plan a calendar that provides time for the tasks to be completed and uploaded by April 30 at 11:59 p.m. ET. Teachers are required to keep video files of the Team Multimedia Presentation and Defense for one academic year because College Board may request to review the scoring for these components to identify samples for scoring training and to ensure scoring quality.

Note: Teachers must review final student submissions, score student presentations, and affirm to authenticity in the AP Digital Portfolio by May 10 at 11:59 p.m. ET. **Students will receive a zero for the IRR if the affirmation is not completed by the teacher.**

For Performance Task 1, by May 10 at 11:59 p.m. ET, teachers must:

- ensure each student has submitted their Individual Research Report (IRR) as final in the AP Digital Portfolio by April 30 at 11:59 p.m. ET
- submit scores for the Team Multimedia Presentation and Defense (TMP) in the AP Digital Portfolio
- review final student submissions and affirm to authenticity in the AP Digital Portfolio

Students will receive a zero for the IRR if the affirmation is not completed by the teacher.

TASK OVERVIEW

Students work in teams of three to five to identify, investigate, and analyze an academic or real-world problem or issue. Each team designs and/or considers options and evaluates alternatives; develops a multimedia presentation to present the argument for their proposed solution or resolution; and provides an oral defense to questions posed by the teacher.

COMPONENTS

The following components are formally assessed:

Component	Scoring Method	Weight
Individual Research Report (IRR) (1,200 words)	College Board scored (individual score)	50% of 20%
Team Multimedia Presentation and Defense (TMP) (8–10 minutes, plus oral defense questions)	Teacher scored (group score)	50% of 20%

TASK GUIDELINES

In this project, three to five students collaborate as a team to identify a problem or issue (e.g., local, national, global, academic/theoretical/philosophical). Each team develops a team research question and conducts preliminary research. They identify approaches, perspectives, or lenses and divide responsibilities among themselves for individual research that will address the team's research question.

The Individual Research Report

Individually, students investigate their assigned approach, perspectives, or lens on the issue or topic of the team research question. Each student presents his or her findings and analysis to the group in a well-written individual report that:

- identifies the area of investigation and its relationship to the overall problem or issue;
- summarizes, explains, analyzes, and evaluates the main ideas and reasoning in the chosen sources;
- identifies, compares, and interprets a range of perspectives about the problem or issue; and
- cites all sources used and includes a list of works cited or bibliography.

Students must avoid plagiarism by acknowledging, attributing, and/or citing sources throughout the paper and including a bibliography or works cited (see the AP Capstone Policy on Plagiarism and Falsification or Fabrication of Information). Students should check their work for plagiarism prior to final submission.

Required Checkpoints

During the research phase of the Individual Research Report students are required to submit to the teacher a log of the original sources they have found and read. Teachers should then have an individual conversation with each student about their process and sources. **(Checkpoint #1)**

For a student to receive a score for the Individual Research Report, teachers must affirm in the AP Digital Portfolio that they have authentically completed this **checkpoint**.

Teachers must also review the final submission of the Individual Research Report to confirm to the best of their knowledge that it is the student's own work by May 10 at 11.59 p.m. ET. **(Checkpoint #3)**

The Team Multimedia Presentation

Working collaboratively, the team considers all of the research and analyses from individual team members for the purpose of proposing one or more solutions or resolutions. The team:

- collaboratively synthesizes and evaluates individual findings and perspectives to create a collective understanding of different approaches to the problem or issue;
- considers potential solutions or resolutions and conducts additional research in order to evaluate different solutions within the context of the problem; and
- proposes one or more solutions or resolutions and prepares an argument to support their proposal.

The team develops an 8–10 minute presentation that presents a convincing argument for their proposed solutions or resolutions. The team should ensure the claims made are supported by evidence which should be attributed or cited (orally or visually). They should ensure they have considered different perspectives and the limitations and implications of their proposed solutions or resolutions. The presentation and the media used to enhance the presentation should consider audience, context, and purpose.

The exact size and composition of the audience for the presentation can be determined by teachers locally; usually this is an audience of students' peers. Students should design their presentations to be appropriate for an educated, non-expert audience.

Note: *Teachers should collect presentation media from all teams in the school's AP Seminar course(s) before any team actually delivers the oral presentation. Teachers must also arrange to video record the presentations/oral defenses and store the recordings for one academic year.*

Following the presentation, the team will defend its argument, with each student responding to a question posed by the teacher.

The Oral Defense

Following the presentation, teachers should ask one question of each individual student. The questions are designed to prompt student reflection on their experiences with group collaboration. Each team member should be prepared to answer questions about any part of the presentation. It is important that teachers ask students questions that allow them to provide specific evidence of their collaboration (for example, asking one student about another team member's research). Teachers may select questions from the following list or formulate more specific questions appropriate to a team's presentation, as long as the questions posed address this criterion. Teachers may also ask follow-up clarifying questions to allow students the opportunity to fully explain their answers.

Here are some examples of the types of questions you should ask each individual student. These are *examples only*; you may ask different questions.

1. Student A, how did the group decide to include Student B's perspective/lens/conclusions into the overall presentation?
2. Student A, give one specific way that your thinking changed as a result of learning about Student B's findings.
3. Reflecting on your colleagues' work, which one had the greatest impact on your overall understanding of the problem your group identified?
4. What is an example of a compelling argument from one of your peer's individual reports that you decided to exclude from your team presentation and why?
5. What is a way in which your team's resolution makes you think differently about your own individual research?
6. Describe an argument from one of your peer's individual reports that made you think differently about your team's solution or conclusion?
7. If you had another team member, what other perspectives or limitations could they have researched that would have made a useful contribution to the project?

Role of the Teacher in Performance Tasks

Performance Tasks in the AP Capstone courses are summative assessments and contribute to the AP score. Submissions must be entirely the student's own work.

Teachers (and other staff) must adhere to the following rules when students are working on these tasks. Teachers of the AP Capstone courses manage the assessment components and all related processes. Teachers should be transparent with students about the role of the teacher, other staff, and/or expert advisers in these courses and what individuals providing guidance to students should and should not do.

AP Seminar: Role of the Teacher

DO	DO NOT
Make sure students are aware of the timeline, assessment task components, and scoring criteria/rubrics.	Assign, provide, distribute, or generate research questions for students.
Hold work-in-progress meetings with students to ask questions, monitor, discuss, and provide guidance on progress. Direct the students to the areas of the rubrics where their work may need improvement.	Write, revise, amend, or correct anything that is part of, or contributes to, the final work submitted for assessment.
Engage in whole class teaching of skills pertinent to the performance tasks as students are working on their research and/or presentations.	Provide specific, directive feedback to individuals or groups (teachers must not tell students what to do).
Suggest possible resources that can help students further their research (e.g., additional data bases, local expert advisers, library assistance) – so that students are not disadvantaged in their exploration.	Conduct research or provide specific sources, articles or evidence for students.
Provide effective guidelines for peer-to-peer review and feedback. Co-ordinate opportunities for students to engage in peer review.	Proofread or copyedit work for students.
Provide students with the list of possible oral defense questions.	Identify the exact questions a student will be asked prior to his or her defense. Students should be prepared to answer every one of the oral defense questions.

AP Seminar: Role of the Teacher	
DO	**DO NOT**
For Performance Task 1	
Oversee the formation of groups.	Allow students to switch groups or change group formation after the start of the project without your permission.
Ensure that you conduct the checkpoint conversation with individual students while they are working on their Individual Research Reports.	Let students work on their Individual Research Reports without checking their progress.
Check AP deadline and monitor student submissions in the digital portfolio. Ensure students meet deadlines, work is submitted to the correct place for the Individual Research Report (IRR) and has been checked for plagiarism.	Leave students to submit work unsupervised.
Score Team Multimedia Presentations (TMP) and submit the scores in the AP Digital Portfolio prior to the May 10 at 11:59 p.m. ET submission deadline.	Release these scores to students.
Review final student reports and affirm to authenticity in the AP Digital Portfolio by May 10 at 11.59 p.m. ET.	Forget to complete affirmations in the Digital Portfolio. **NOTE: Students will receive a zero for the IRR if the affirmation is not completed by the teacher.**

Required Checkpoints in Performance Task 1

To ensure students are not using generative AI to bypass work, students must complete interim "checkpoints" with their teacher to demonstrate genuine engagement with the performance tasks.

Teachers can schedule the checkpoints as they deem appropriate, but where possible they should occur during the relevant phase of the task.

Teachers must affirm to the successful completion of the checkpoints in the Digital Portfolio by May 10 at 11.59 p.m. ET. Teacher affirmations are required for a student to receive a score for that task.

Checkpoint #1 (Process and Sources)	**Required steps:**
Required for IRR and IWA Occurs during the research phase of the task	1. Students submit to the teacher a log of the sources they have found and read, together with their notes/annotations/comments on them. Teachers can determine the precise format of this log, for example, an annotated bibliography, a source chart, or digital annotations on sources. The log should include links to the original sources where possible. 2. Teachers hold a short conversation with each student about their research process, the evolution of their research question, the usefulness of the sources they have found (as documented in their source log) or the perspectives they represent.

Evaluation of Checkpoint #1

Successful completion of this checkpoint means a student is able to discuss this phase of research in a manner that extends beyond mere repetition of the information in their source log. Specifically, they offer additional details or reflections on their sources, or rationales for decisions made during the research process.

Students that do not answer questions with any detail or provide information beyond what is already in the source log should be given the opportunity to repeat the process (with new source log and conversation).

If there is suspicion that the student has relied on generative AI without reading or understanding the original sources, that should be discussed with the student before they re-do the process.

Checkpoint #2 (Argument Outline)	**Not required for Performance Task 1**

Checkpoint #3 (Final Paper)	Required steps:
Required for IRR and IWA Occurs after papers submitted as final	Teachers should read through the final submission of the paper to check that: › it is reasonably consistent with the student's usual writing › it is generally consistent with the work observed during the checkpoints › it does not have a high AI detection score in Turnitin. If something anomalous is found, teachers can refer to the work submitted for the checkpoints as a reference in reviewing the consistency of the work. Teachers should affirm, to the best of their knowledge, to the authenticity of the student's work in the Digital Portfolio.

AP Seminar Performance Task 2: Individual Research-Based Essay and Presentation

Note: Detailed instructions for students are provided as a handout at the end of this CED (see the section "Reproducibles for Students") and will be published along with the stimulus materials each year.

Weight: 35% of the AP Seminar score

Recommended Completion Date: April 15

Student Submission Deadline: **April 30, 11:59 p.m. ET**

Note: Students must be given at least 30 school days (state testing, spring breaks, holidays, etc. would not count toward those days) to complete their research, compose their essays, and develop their presentations. The actual presentations must take place outside the 30-day window. The task is complex and rigorous, so students must be given sufficient time to complete it. Teachers would disadvantage students by giving them less time. Giving more time could also disadvantage students by reducing the time available for completing the Team Project and Presentation. Teachers should collect written work and presentation media from every student in the school's AP Seminar course(s) before any student actually delivers the oral presentation. Teachers must carefully plan a calendar that provides time for the tasks to be completed, and uploaded by April 30 at 11:59 p.m. ET.

Note: Teachers must review final student submissions, score student presentations, and affirm to authenticity in the AP Digital Portfolio by May 10 at11:59 p.m. ET. **Students will receive a zero for the IWA if the affirmation is not completed by the teacher.**

For Performance Task 2, by May 10 at11:59 p.m. ET, teachers must:

- ensure each student has submitted their Individual Written Argument (IWA) as final in the AP Digital Portfolio by April 30 at 11:59 p.m. ET.
- submit scores for the Individual Multimedia Presentation (IMP) and Oral Defense (OD) in the AP Digital Portfolio
- review final student submissions and affirm to authenticity in the AP Digital Portfolio

TASK OVERVIEW

College Board's AP Program will annually release cross-curricular stimulus material (texts) representing a range of perspectives focused on a single theme. Students read and analyze these stimulus materials to identify thematic connections among them and possible areas for inquiry. Their inquiry must be based on a thematic connection between at least two of the stimulus materials. Students then compose a research question of their own; conduct research; analyze, evaluate, and select evidence to develop an argument; and present and defend their conclusions. The final paper must integrate at least one of the provided stimulus materials as part of the response.

CRITERIA FOR STIMULUS MATERIAL

In early January each year, College Board will release academic, cross-curricular stimulus material (texts) focused on a theme representing a range of perspectives from each of the following domains:

- Natural Sciences, Technology, Mathematics, Environment
- Social Sciences, Politics, Economics, Psychology
- Arts (Visual Arts, Music, Dance, Theater)
- Culture, Languages, Linguistics
- History
- Literature, Philosophy, Critical Theory/Criticism

The following will be represented in the texts:

- Multimedia text (e.g., photographs, artwork, video, music)
- Quantitative data

Note: The inclusion of sources in this assessment is not intended as an endorsement by College Board or ETS of the content, ideas, or values expressed by the authors.

COMPONENTS

The following components are formally assessed:

Component	Scoring Method	Weight
Individual Written Argument (IWA) (2,000 words)	College Board scored	70% of 35%
Individual Multimedia Presentation (IMP) (6–8 minutes)	Teacher scored	20% of 35%
Oral Defense (OD) (two questions from the teacher)	Teacher scored	10% of 35%

TASK GUIDELINES

Cross-curricular stimulus materials supplied by College Board are released to teachers in early January each year through the AP Digital Portfolio. Teachers decide when to release these materials to students. Students must be given at least 30 school days to complete their research, compose their essays, and develop their presentations. Student presentations must be scheduled after the 30-day window.

Teachers should engage students with in-class activities to explore issues and discuss topics and perspectives emerging from the stimulus materials. Students must address the current year's stimulus material in their responses.

The Individual Written Argument

Students read and analyze the provided stimulus materials to identify thematic connections among them and possible areas for inquiry. Their inquiry must be based on a thematic connection between at least two of the stimulus materials. Students then compose a research question prompted by their analysis of the stimulus materials; gather additional information through research; analyze, evaluate, and select evidence; and develop a logical, well-reasoned argument of 2,000 words. The final paper must integrate at least one of the stimulus materials as part of the response.

Students must avoid plagiarism by acknowledging, attributing, and/or citing sources throughout the paper and including a bibliography or works cited (see the AP Capstone Policy on Plagiarism and Falsification or Fabrication of Information). Students should check their work for plagiarism prior to final submission.

Required Checkpoints

During the research phase of the Individual Written Argument students are required to submit to the teacher a log of the original sources they have found and read. Teachers should then have an individual conversation with each student about their process and sources. **(Checkpoint #1)**

Students are also required to submit to the teacher an argument outline. They must present the outline to the teacher (~2 minutes) explaining their decisions on structure and content and respond to follow-up questions. **(Checkpoint #2)**

For a student to receive a score for the Individual Written Argument, teachers must affirm in the AP Digital Portfolio that they have authentically completed both of these **checkpoints**.

Teachers must also review the final submission of the Individual Written Argument to affirm, to the best of their knowledge, that it is the student's own work by May 10 at 11.59 p.m. ET. **(Checkpoint #3)**

The Individual Multimedia Presentation

Each student develops a 6- to 8-minute presentation to convey their perspective and present their conclusions from their individual written argument. Students should use and attribute, either orally or visually, evidence to support their claims and situate their perspective in a larger context, rather than merely summarizing their research. The presentation and the media used to enhance the presentation should consider audience, context, and purpose.

The exact size and composition of the audience for the presentation can be determined by teachers locally; usually this is an audience of students' peers. Students should design their presentations to be appropriate for an educated, non-expert audience.

Note: *Teachers should collect presentation media from all students in the school's AP Seminar course(s) before any individual student actually delivers the oral presentation. Teachers should also arrange to video record the presentations/oral defenses and store the recordings for one academic year.*

Finally, students defend their research process, use of evidence, and conclusion through oral responses to two questions asked by the teacher.

The Oral Defense

Following the presentation, teachers should ask two questions of the student. This component is designed to assess the student's response to and understanding of the two criteria below, and a question must be asked to address each of them. Teachers may select questions from the list or formulate more specific questions appropriate to a student's presentation, as long as the questions posed address the two criteria below. Teachers may also ask follow-up clarifying questions to allow students the opportunity to fully explain their answers.

1. **Reflection on the Research Process**
   - How did some preliminary information you gathered inform your research?
   - What evidence did you gather that you didn't include? Why did you choose not to include it?
   - How did your research question evolve as you moved through the research process?
   - Did your research go in a different direction than you originally expected?
   - What information did you need that you weren't able to find or locate?
   - How did you approach and synthesize the differing perspectives in order to reach a conclusion?

2. **Extending Argumentation through effective questioning and inquiry**
   - What additional questions emerged from your research? Why are these questions important?
   - What are the implications of your findings to your community?
   - How is your conclusion in conversation with the body of literature or other research sources you examined?
   - How did you use the conclusions or questions of others to advance your own research?

Role of the Teacher in Performance Tasks

Performance Tasks in the AP Capstone courses are summative assessments and contribute to the AP score. Submissions must be entirely the student's own work.

Teachers (and other staff) must adhere to the following rules when students are working on these tasks. Teachers of the AP Capstone courses manage the assessment components and all related processes. Teachers should be transparent with students about the role of the teacher, other staff, and/or expert advisers in these courses and what individuals providing guidance to students should and should not do.

AP Seminar: Role of the Teacher

DO	DO NOT
Make sure students are aware of the timeline, assessment task components, and scoring criteria/rubrics.	Assign, provide, distribute, or generate research questions for students.
Hold work-in-progress meetings with students to ask questions, monitor, discuss, and provide guidance on progress. Direct the students to the areas of the rubrics where their work may need improvement.	Write, revise, amend, or correct anything that is part of, or contributes to, the final work submitted for assessment.
Engage in whole class teaching of skills pertinent to the performance tasks as students are working on their research and/or presentations.	Provide specific, directive feedback to individuals or groups (teachers must not tell students what to do).
Suggest possible resources that can help students further their research (e.g., additional data bases, local expert advisers, library assistance) – so that students are not disadvantaged in their exploration.	Conduct research or provide specific sources, articles or evidence for students.
Provide effective guidelines for peer-to-peer review and feedback. Co-ordinate opportunities for students to engage in peer review.	Proofread or copyedit work for students.
Provide students with the list of possible oral defense questions.	Identify the exact questions a student will be asked prior to his or her defense. Students should be prepared to answer every one of the oral defense questions.

AP Seminar: Role of the Teacher	
DO	**DO NOT**
Performance Task 2	
Engage in class discussions with students to explore issues, and discuss topics and perspectives emerging from the stimulus materials.	Release the stimulus materials to students without discussion or guidance.
Ensure that you conduct the required checkpoints with individual students while they are working on their Individual Written Arguments	Let students work on their Individual Written Arguments without checking their progress
Check AP deadline and monitor student submissions in the digital portfolio. Ensure students meet deadlines, work is submitted to the correct place for the individual written argument (IWA), and has been checked for plagiarism.	Leave students to submit work unsupervised.
Score Individual Multimedia Presentations (IMP) and Oral Defenses (OD) and submit the scores in the AP Digital Portfolio prior to the May 10 at 11:59 p.m. ET submission deadline.	Release these scores to students.
Review final student arguments and affirm to authenticity in the AP Digital Portfolio by May 10 at 11.59 p.m. ET.	Forget to complete affirmations in the Digital Portfolio. **NOTE: Students will receive a zero for the IWA if the affirmation is not completed by the teacher.**

Required Checkpoints in Performance Task 2

To ensure students aren't using generative AI to bypass work, students must complete interim "checkpoints" with their teacher to demonstrate genuine engagement with the performance tasks.

Teachers can schedule the checkpoints as they deem appropriate, but where possible they should occur during the relevant phase of the task.

Teachers must affirm to the successful completion of the checkpoints in the Digital Portfolio by May 10 at 11.59 p.m. ET. Teacher affirmations are required for a student to receive a score for that task.

Checkpoint #1 (Process and Sources)	Required steps:
Required for IRR and IWA Occurs during the research phase of the task	1. Students submit to the teacher a log of the sources they have found and read, together with their notes/annotations/comments on them. Teachers can determine the precise format of this log, for example, an annotated bibliography, a source chart, or digital annotations on sources. The log should include links to the original sources where possible. 2. Teachers hold a short conversation with each student about their research process, the evolution of their research question, the usefulness of the sources they have found (as documented in their source log) or the perspectives they represent.

Evaluation of Checkpoint #1

Successful completion of this checkpoint means a student is able to discuss this phase of research in a manner that extends beyond mere repetition of the information in their source log. Specifically, they offer additional details or reflections on their sources, or rationales for decisions made during the research process.

Students that do not answer questions with any detail or provide information beyond what is already in the source log should be given the opportunity to repeat the process (with new source log and conversation).

If there is suspicion that the student has relied on generative AI without reading or understanding the original sources, that should be discussed with the student before they re-do the process.

Checkpoint #2 (Argument Outline)	Required steps:
Required for IWA only Occurs during early writing phase of the task	1. Students submit to the teacher an outline of their argument. Teachers can determine the precise format of the outline (written or visual/diagrammatic form). 2. Each student presents their argument outline to the teacher (for ~2-minutes) in which they explain their choices. This could include how the ideas connect, why they chose particular subsections, and why they selected specific evidence or perspectives. 3. Teachers ask follow-up questions where necessary to uncover the reasons behind the student's decisions about the structure and content of their argument.

Evaluation of Checkpoint #2

Successful completion of this checkpoint means a student is able to talk about their argument outline in a way that explains some of their decisions on structure and/or content. Specifically, they offer additional details or rationales for decisions.

Students that do not answer questions with any detail or provide information beyond what is already provided in the outline should be given the opportunity to repeat the process (with a new outline and conversation).

If there is suspicion that the student has relied on generative AI to create their outline, that should be discussed with the student before they re-do the process.

Checkpoint #3 (Final Paper)	Required steps:
Required for IRR and IWA Occurs after papers submitted as final	Teachers should read through the final submission of the paper to check that: › it is reasonably consistent with the student's usual writing › it is generally consistent with the work observed during the checkpoints › does not have a high AI detection score in Turnitin. If something anomalous is found, teachers can refer to the work submitted for the checkpoints as a reference in reviewing the consistency of the work. Teachers should affirm, to the best of their knowledge, to the authenticity of the student's work in the Digital Portfolio.

AP Seminar End-of-Course Exam

Weight: 45% of the AP Seminar score (College Board scored)

Date: May (in the AP Exam administration window)

Note: The end-of-course exam will be administered by the AP Coordinator following the same procedures and guidelines as all other Advanced Placement Exams.

TASK OVERVIEW

During the AP Exam administration window, students will take the AP Seminar End-of-Course Exam. The exam consists of four items (three short-answer and one essay question). The three short-answer questions assess analysis of an argument in a single source or document. The essay question assesses students' skills in synthesizing and creating an evidence-based argument.

DESCRIPTION OF END-OF-COURSE EXAM

Five sources will be included with each end-of-course exam. Sources on the end-of-course exam will represent a range of disciplines and perspectives. The four prompts listed in the table below will remain the same on the end-of-course exam from year to year.

COMPONENTS

The following components are formally assessed:

Component	Scoring Method	Weight
Part A Suggested time: 30 minutes One source provided Students are asked to analyze an argument using evidence. 1. Identify the author's argument, main idea, or thesis. 2. Explain the author's line of reasoning by identifying the claims used to build the argument and the connections between them. 3. Evaluate the effectiveness of the evidence the author uses to support the claims made in the argument.	College Board scored	30% of 45%
Part B Suggested time: 90 minutes Four sources provided Students are asked to build their own arguments using at least two of the four provided sources. Each of the four sources will explore a common theme through a different perspective, allowing multiple entry points for students to approach the topic. **Directions:** Read the four sources carefully, focusing on a theme or issue that connects them and the different perspective each represents. Then, write a logically organized, well-reasoned, and well-written argument that presents your own perspective on the theme or issue you identified. You must incorporate at least two of the sources provided and link the claims in your argument to supporting evidence. You may also use the other provided sources or draw upon your own knowledge. In your response, refer to the provided sources as Source A, Source B, Source C, or Source D, or by the authors' names.	College Board scored	70% of 45%

Reproducibles for Students

The following pages contain reproducible versions of the Performance Tasks, Sample End-of-Course Exam, stimulus material, and AP Capstone Tips for Students.

AP Seminar Performance Task 1: Team Project and Presentation

Student Version

Weight: 20% of the AP Seminar score

Task Overview

You will work in teams of three to five to identify, investigate, and analyze an academic or real-world problem or issue; consider options and alternatives; and present and defend your proposed solution(s) or resolution(s). The components that comprise this task are the Individual Research Report and the Team Presentation and Oral Defense. These components are made up of the following elements, each of which you will need to complete in order to fulfill the task requirements:

Task Elements	Length	Due Date (fill in)
Individual Research Report (IRR)	1,200 words	
Team Multimedia Presentation (TMP)	8–10 minutes	
Oral Defense (part of Team Presentation)	Each student responds to 1 question	

In all written work, you must:

- Acknowledge, attribute, and/or cite sources using in-text citations, endnotes, or footnotes, and/or through bibliographic entry. You must avoid plagiarizing (see the attached AP Capstone Policy on Plagiarism and Falsification and Fabrication of Information).
- Adhere to established conventions of grammar, usage, style, and mechanics.

Task Directions

1. **Team Coordination**

   As a team:

   - Collaborate to identify an academic or real-world problem or issue (e.g., local, national, global, academic/theoretical/philosophical).
   - Develop a team research question that can be viewed from multiple perspectives.
   - Conduct preliminary research to identify possible approaches, perspectives, or lenses.
   - Divide responsibilities among group members for individual research that will address the team's research question.

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2. **Individual Research Report** (1,200 words)
   - Work with your team to decide and clarify your individual approach to the team question.
   - Throughout your research and as a team, continually revisit and refine your original team research question to ensure that the evidence you gather addresses your collective purpose and focus.

   On your own:
   - Investigate your assigned approach, range of perspectives or lens on the problem or issue of your team research question.
   - Identify a variety of sources that relate to your particular approach to the team research question.
   - Analyze the credibility of the sources and relevance of the evidence to your area of inquiry.
   - Synthesize the perspectives you have gathered and chose which ones would be most valuable to share with your team in your individual report.
   - Consult with your peers to get feedback and refine your approach throughout.
   - Ensure that the report that you submit is entirely your own work.

   Required Checkpoints

   While you are working on your individual research, you will be required to submit evidence of the original sources that you have found and read to your teacher.

   Your teacher will arrange a time for you to discuss your research and sources with them.

   For that discussion you should be prepared to talk about your sources, and the perspectives and ideas you have found in your research.

   - Present your findings and analysis to your group in a well-researched and well-written report in which you:
     - Identify an area of investigation and explain its relationship to the overall problem or issue.
     - Summarize, explain, analyze and evaluate the main ideas and reasoning in the chosen sources.
     - Demonstrate you have evaluated the credibility of your chosen sources and selected evidence relevant to the inquiry.
     - Identify, compare and interpret a range of perspectives about the problem or issue.
     - Cite all sources that you have used, and include a list of works cited or a bibliography.
     - Use correct grammar and a style appropriate to an academic audience.
   - Abide by the 1,200-word limit (excluding footnoted citations, bibliography, and text in figures or tables). Word count does include titles, sub-headings, and in-text citations.
   - Remove any references to your name, school, and teacher.
   - Upload your document to the AP Digital Portfolio as directed by your teacher.

3. **Team Collaboration and Argument Construction**
   - Read all team members' reports.
   - Teach other team members what you learned so that all team members understand all perspectives presented in the reports (in the Oral Defense, you may be asked about any team member's work)
   - Collaboratively synthesize and evaluate individual findings and perspectives to create a collective understanding of different approaches to the problem or issue.
   - Consider potential solutions or resolutions to your team's problem or issue.

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- Conduct additional research on solutions or resolutions.
- Evaluate different solutions in relation to context and complexity of the problem.
- Propose a solution or resolution to your problem or issue.
- Develop an argument to support your proposed solution(s).

4. **Team Multimedia Presentation and Defense** (8–10 minutes)

   Together with your team, develop a presentation that communicates a convincing argument for your team's proposed solution or resolution. Your claims should be supported by evidence and you should show you have considered different perspectives and your proposed solution's or resolution's limitations and/or implications.

   - Develop and prepare a multimedia presentation that will convey your argument for your proposed solution or resolution. You should design your presentation to be appropriate for an educated, non-expert audience.
   - Be selective about the information you choose for your presentation by focusing on key points you want your audience to understand.
   - Plan each team member's role in the presentation design and delivery.
   - Design your oral presentation with supporting visual media (e.g., presentation slides, a poster, a website), and consider audience, context, and purpose.
   - Prepare to engage your audience using appropriate strategies (e.g., eye contact, vocal variety, expressive gestures, movement).
   - Prepare notecards or an outline that you can quickly reference as you are speaking so that you can interact with supporting visuals and the audience.
   - Rehearse in order to refine your design and practice your delivery.
   - Ensure that you can deliver it within the 8- to 10-minute time limit.
   - Ask each other questions about the process and final product of this project to prepare for your oral defense.

   - Then, deliver an 8- to 10-minute multimedia presentation in which you:
     - Evaluate different solutions or resolutions to your team's problem or issue by considering their implications and limitations.
     - Present a well-reasoned argument that links claims and evidence to explain why your team chose its proposed solution(s) or resolution(s). Make sure you cite or attribute the evidence you use to support your claims (either orally or visually).
     - Identify and explain the implications and limitations of the solution(s) or resolution(s) your team chose.
     - Engage the audience with an effective and clearly organized presentation design that guides them through your argument.
     - Engage the audience with effective techniques of delivery and performance.
     - Demonstrate equal participation and engagement of all team members.
   - Following the presentation, your team will defend its argument. Your teacher will ask each individual team member a question in which you will reflect on experiences of collaborative effort and defend your team's work.
     - Make sure your answers include specific details about your collaborative work.
     - Each team member should be prepared to answer questions about any part of the presentation or research process (including information that others in your team have researched and/or presented).

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Sample Oral Defense Questions

Here are some examples of the types of questions your teacher might ask you during your oral defense. These are *examples only*; your teacher may ask you different questions. Make sure your answers include specific details about your team's project.

1. Student A, how did the group decide to include Student B's perspective/lens/conclusions into the overall presentation?
2. Student A, give one specific way that your thinking changed as a result of learning about Student B's findings.
3. Reflecting on your colleagues' work, which one had the greatest impact on your overall understanding of the problem your group identified?
4. What is an example of a compelling argument from one of your peer's individual reports that you decided to exclude from your team presentation and why?
5. What is a way in which your team's resolution makes you think differently about your own individual research?
6. Describe an argument from one of your peer's individual reports that made you think differently about your team's solution or conclusion?
7. If you had another team member, what other perspectives or limitations could they have researched that would have made a useful contribution to the project?

AP Capstone™ Policy on Plagiarism and Falsification or Fabrication of Information

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 Task. In AP Seminar, a team of students that fails to properly acknowledge sources or authors on the Team Multimedia Presentation 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 Task. In AP Seminar, a team of students that incorporates falsified or fabricated information in the Team Multimedia Presentation will receive a group score of 0 for that component of the Team Project and Presentation.

AP Capstone Policy on Use of Generative Artificial Intelligence (AI)

DEFINITION OF GENERATIVE AI IN AP CAPSTONE COURSES

Generative AI tools use predictive technology to produce new text, charts, images, audio, video, etc. This includes not only ChatGPT and similar Large Language Models (LLMs), but also many writing assistants or plug-ins that are built on this or similar AI technologies.

POLICY ON ACCEPTABLE GENERATIVE AI USE IN AP CAPSTONE COURSES

Generative AI tools must be used ethically, responsibly, and intentionally to support student learning, not to bypass it. Accordingly, all performance tasks submitted in AP Seminar and AP Research must be the student's own work. While students are permitted to use generative AI tools consistent with this policy, their use is optional and not mandatory.

Students can use generative AI tools as optional aids for exploration of potential topics of inquiry, initial searches for sources of information, confirming their understanding of a complex text, or checking their writing — but not rewriting — for grammar and tone. However, students must read primary and secondary sources directly, perform their own analysis and synthesis of evidence, and make their own choices on how to communicate effectively both in their writing and presentations. Students may not use generative AI tools to write or create their assignments for them. It remains the student's responsibility to engage deeply with credible, valid sources and integrate diverse perspectives when working on the performance tasks. Students must complete interim "checkpoints" with their teacher to demonstrate genuine engagement with the tasks.

The following table describes what constitutes acceptable use of generative AI at different phases of the work to complete the performance tasks.

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Phase of Work	Acceptable Use	Not Acceptable Use
Exploring ideas to develop and refine an area of inquiry	Using generative AI tools to get a sense of existing debates on an issue, potential sub-topics, or what is generally already widely known about a topic.	Taking the output of generative AI tools uncritically, such as using AI to generate a research question or thesis, without engaging with the actual research or relying solely on generative AI as a source of information about a topic
Finding sources	› Using generative AI to find authors, organizations, publications, or sources that may be pertinent to the area of inquiry, so that the student can then locate and read those perspectives directly. › Asking for recommendations on related sources to further explore the topic or address gaps in research. **NOTE:** Not all AI tools are the same in terms of the likelihood they will provide output with credible sources. For example, AI-powered search engines for research databases draw from vetted sources, whereas ChatGPT does not necessarily differentiate. Students must review output with a skeptical, critical eye to be sure any suggested sources are real, credible, and relevant to their inquiry.	Using a list of sources generated by AI without going to the original sources and reviewing the content.
Summarizing and/or interpreting sources	Using generative AI to help develop understanding of complex texts by: › Requesting help with understanding complex vocabulary or sentence structures in a source. › Asking for clarification on a confusing concept or passage in a source. **NOTE:** Students should <u>always</u> read the original text of the sources they intend to use to ensure they are accurately understanding and utilizing the evidence from those sources in their work	› Generating a summary or paraphrasing of the source instead of reading it. › Requesting direct quotes or citations from a source to use as evidence without independently identifying them. › Copying and pasting AI generated source summaries into the final draft.

Phase of Work	Acceptable Use	Not Acceptable Use
Synthesizing ideas and information from sources into a literature review, report, or argument	No acceptable use. **NOTE:** Students will be asked questions in either their PREP-based in-progress meetings (AP Research) or in the checkpoints (AP Seminar) to ensure they have done this work themselves.	› Asking generative AI to: › Compare or contrast sources and/or generate a review of literature. › Synthesize common or contrasting elements from within a source or across multiple sources. › Develop statements or paragraphs that put sources in conversation.
Developing an aligned method for their Research **(AP Research only)**	Summarizing commonly used methods in discipline-specific fields or reviewing benefits and drawbacks of different generic methods or methodologies. **NOTE:** Students will be asked questions in their PREP-based in-progress meetings (AP Research) to ensure that they have done this work themselves.	Using generative AI to determine the appropriate method for an individual student's research and/or providing rationales for a specific method. *See exception noted above*.
Producing, summarizing and/or interpreting data **(AP Research only)**	No acceptable use. **NOTE:** Students will be asked questions in their PREP-based in-progress meetings (AP Research) to ensure that they have done this work themselves.	› Using generative AI to generate data (this would count as falsified and/or fabricated data). *The only exception would be if use of generative AI tools is the subject of the inquiry. In this case, using generative AI to generate data would be part of the method.* › Using AI to summarize or discuss their results or data.
Developing displays of data **(AP Research only)**	Using generative AI to create charts/graphs or other representations of data collected and assembled by the student.	Using generative AI to produce or generate the data itself. *See exception noted above*.
Drafting or outlining a paper	Seeking guidance on general best practices in how to structure a research paper, essay, or report. **NOTE:** Students will be asked questions (on the reasoning underpinning their choices for structure and content) in either their PREP-based in-progress meetings (AP Research) or the checkpoints (AP Seminar) to ensure that they have done this work themselves.	› Asking generative AI to produce an outline or draft of a specific paper. › Requesting generative AI to write all or part of the paper. › Using writing generated by AI in the final draft.

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Phase of Work	Acceptable Use	Not Acceptable Use
Revising a paper	› Using spell or grammar checkers. › Asking for feedback on style and tone (students must make deliberate choices on what feedback to incorporate).	› Accepting AI-generated suggestions for revisions of written work without critically evaluating such contributions. › Incorporating into student submissions new sections of text suggested by generative AI.
Creating Citations / Bibliography	› Seeking guidance on how to cite or check citations. › Generating a draft of the bibliographic listing of citations or checking the format of a student-generated draft of the bibliographic listing of citations.	› Using AI to generate citations without having directly studied the original sources. › Relying on generative AI to create the bibliographic listing of citations without then checking the accuracy of the format.
Developing Presentations	› Seeking general guidance on effective presentations. › Generating initial ideas for key points, sequence, or visuals for presentations.	› Uncritically using AI to produce the key points, visuals, or structure for presentations. › Using AI to generate a script that is memorized or read for the presentation.
Preparing for Oral Defense	No acceptable use.	Using AI to generate possible answers to potential oral defense questions (and memorizing or reading them).

REQUIRED CHECKPOINTS AND AFFIRMATIONS

To ensure students are not using generative AI to bypass work, students must complete interim "checkpoints" with their teacher to demonstrate genuine engagement with the tasks. **AP Seminar and AP Research students will need to complete the relevant checkpoints successfully to receive a score for their performance tasks. Teachers must affirm, to the best of their knowledge, that students completed the checkpoints authentically in the AP Digital Portfolio. Failure to complete the checkpoints will result in a score of zero on the associated task.**

- In AP Seminar, teachers assess the authenticity of student work based on checkpoints that take the form of short conversations with students during which students make their thinking and decision-making visible (similar to an oral defense). These checkpoints should occur during the sources and research phase (IRR and IWA), and argument outline phase (IWA only).
- In AP Research, students must complete "checkpoints" in the form of in-progress meetings and work in the Process and Reflection Portfolio (PREP).

AP Seminar and AP Research teachers are also required to affirm, to the best of their knowledge, that the student's final submission is authentic student work.

College Board reserves the right to investigate submissions where there is evidence of the inappropriate use of generative AI as an academic integrity violation and request from students copies of their interim work for review.

AP Seminar Performance Task 2: Individual Research-Based Essay and Presentation

Student Version

Weight: 35% of the AP Seminar score

Task Overview

This packet includes a set of stimulus materials for the AP Seminar Performance Task 2: Individual Research-Based Essay and Presentation.

You must identify a research question prompted by analysis of the provided stimulus materials, gather information from a range of additional sources, develop and refine an argument, write and revise your argument, and create a presentation that you will be expected to defend orally immediately following your presentation. Your teacher will give you a deadline for when you need to submit your written argument and presentation media. Your teacher will also give you a date on which you will give your presentation.

Task Components	Length	Due Date (fill in)
Individual Written Argument (IWA)	2,000 words	
Individual Multimedia Presentation (IMP)	6–8 minutes	
Oral Defense (OD)	Respond to 2 questions	

In all written work, you must:

- Acknowledge, attribute, and/or cite sources using in-text citations, endnotes or footnotes, and/or through bibliographic entry. You must avoid plagiarizing (see the attached AP Capstone Policy on Plagiarism and Fabrication and Falsification of Information).
- Adhere to established conventions of grammar, usage, style, and mechanics.

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Task Directions

1. **Individual Written Argument** (2,000 words)

- Read and analyze the provided stimulus materials to identify thematic connections among the sources and possible areas for inquiry.
- Compose a research question of your own prompted by analysis of the stimulus materials. Your question must relate to a theme that connects at least two of the stimulus materials.
- Gather information from a range of additional sources representing a variety of perspectives, including scholarly work.
- Analyze, evaluate, and select evidence. Interpret the evidence to develop a well-reasoned argument that answers the research question and conveys your perspective.
- Throughout your research, continually revisit and refine your original research question to ensure that the evidence you gather addresses your purpose and focus.
- Identify and evaluate opposing or alternate views and consider their implications and/or limitations as you develop resolutions, conclusions, or solutions to your research question.

Required Checkpoints

While you are working on your research for the IWA:

- you will be required to submit evidence of the original sources that you have found and read to your teacher.
- your teacher will arrange a time for you to discuss your research and sources with them. For that discussion you should be prepared to talk about your sources, and the perspectives and ideas you have found in your research.

When you begin planning your argument you will also be required to present and discuss your argument outline with your teacher. For that presentation you should explain your decisions about the structure of your paper and what information you decided to include.

- Compose a coherent, convincing and well-written argument in which you:
  - Explain the significance or importance of your research question by situating it within a larger context.
  - Establish a well-organized argument that links claims and evidence and leads to a specific and plausible conclusion, resolution or solution that addresses your research question.
  - Integrate at least one of the stimulus materials as part of your argument. (For example, as providing relevant context for the research question or as evidence to support relevant claims.)
  - Evaluate different perspectives by considering objections to them, and their limitations and/or implications.
  - Include relevant evidence from credible sources to support your claims. You should include evidence from scholarly work.
  - Cite all sources that you have used, including the stimulus materials, and include a list of works cited or a bibliography.
  - Use correct grammar and a style appropriate for an academic audience.
- Abide by the 2,000-word limit (excluding footnoted citations, bibliography, and text in figures or tables). Word count does include titles, sub-headings, and in-text citations.
- Remove references to your name, school and teacher.
- Upload your document to the AP Digital Portfolio as directed by your teacher.

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2. **Individual Multimedia Presentation** (6–8 minutes)
   - Develop and prepare a multimedia presentation that will convey the argument from your final paper to an educated, non-expert audience.
   - Be selective about the information you choose for your presentation by focusing on key points you want your audience to understand.
   - Design your oral presentation with supporting visual media (e.g., presentation slides, a poster, a website), and consider audience, context, and purpose.
   - Prepare to engage your audience using appropriate strategies (e.g., eye contact, vocal variety, expressive gestures, movement).
   - Prepare notecards or an outline that you can quickly reference as you are speaking so that you can interact with supporting visuals and the audience.
   - Rehearse your presentation in order to refine your design and practice your delivery.
   - Check that you can do the presentation within the 6- to 8-minute time limit.
   - Deliver a 6- to 8-minute multimedia presentation in which you:
     - Contextualize and identify the importance of your research question.
     - Explain the connection between your research and your analysis of the stimulus materials.
     - Deliver a well-organized argument that connects claims and evidence.
     - Incorporate and synthesize relevant evidence from various perspectives to support your argument. Make sure you cite or attribute the evidence you use to support your claims (either orally or visually).
     - Offer a plausible resolution(s), conclusion(s), and/or solution(s) based on evidence and consider the implications of any suggested solutions.
     - Engage the audience with an effective and clearly organized presentation design that guides them through your argument.
     - Engage the audience with effective techniques of delivery and performance.

3. **Individual Oral Defense**

   Defend your research process, use of evidence, and conclusion(s), solution(s), or recommendation(s) through oral responses to two questions asked by your teacher. Be prepared to describe and reflect on your process as well as defend and extend your written work and oral presentation. Make sure you include relevant and specific details about your work in your answers.

Sample Oral Defense Questions

Here are some examples of the types of questions your teacher might ask you during your oral defense. These are *examples only*; your teacher may ask you different questions, but there will still be one question that relates to each of the following two categories.

1. **Reflection on the Research Process**
   - How did some preliminary information you gathered inform your research?
   - What evidence did you gather that you didn't include? Why did you choose not to include it?
   - How did your research question evolve as you moved through the research process?
   - Did your research go in a different direction than you originally expected?

(continues)

- What information did you need that you weren't able to find or locate?
- How did you approach and synthesize the differing perspectives in order to reach a conclusion?

2. **Extending Argumentation through effective questioning and inquiry**
   - What additional questions emerged from your research? Why are these questions important?
   - What are the implications of your findings to your community?
   - How is your conclusion in conversation with the body of literature or other research sources you examined?
   - How did you use the conclusions or questions of others to advance your own research?

AP Capstone™ Policy on Plagiarism and Falsification or Fabrication of Information

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 Task. In AP Seminar, a team of students that fails to properly acknowledge sources or authors on the Team Multimedia Presentation 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 Task. In AP Seminar, a team of students that incorporates falsified or fabricated information in the Team Multimedia Presentation will receive a group score of 0 for that component of the Team Project and Presentation.

AP Capstone Policy on Use of Generative Artificial Intelligence (AI)

DEFINITION OF GENERATIVE AI IN AP CAPSTONE COURSES

Generative AI tools use predictive technology to produce new text, charts, images, audio, video, etc. This includes not only ChatGPT and similar Large Language Models (LLMs), but also many writing assistants or plug-ins that are built on this or similar AI technologies.

POLICY ON ACCEPTABLE GENERATIVE AI USE IN AP CAPSTONE COURSES

Generative AI tools must be used ethically, responsibly, and intentionally to support student learning, not to bypass it. Accordingly, all performance tasks submitted in AP Seminar and AP Research must be the student's own work. While students are permitted to use generative AI tools consistent with this policy, their use is optional and not mandatory.

Students can use generative AI tools as optional aids for exploration of potential topics of inquiry, initial searches for sources of information, confirming their understanding of a complex text, or checking their writing — but not rewriting — for grammar and tone. However, students must read primary and secondary sources directly, perform their own analysis and synthesis of evidence, and make their own choices on how to communicate effectively both in their writing and presentations. Students may not use generative AI tools to write or create their assignments for them. It remains the student's responsibility to engage deeply with credible, valid sources and integrate diverse perspectives when working on the performance tasks. Students must complete interim "checkpoints" with their teacher to demonstrate genuine engagement with the tasks.

The following table describes what constitutes acceptable use of generative AI at different phases of the work to complete the performance tasks.

Phase of Work	Acceptable Use	Not Acceptable Use
Exploring ideas to develop and refine an area of inquiry	Using generative AI tools to get a sense of existing debates on an issue, potential sub-topics, or what is generally already widely known about a topic.	Taking the output of generative AI tools uncritically, such as using AI to generate a research question or thesis, without engaging with the actual research or relying solely on generative AI as a source of information about a topic
Finding sources	› Using generative AI to find authors, organizations, publications, or sources that may be pertinent to the area of inquiry, so that the student can then locate and read those perspectives directly. › Asking for recommendations on related sources to further explore the topic or address gaps in research. **NOTE:** Not all AI tools are the same in terms of the likelihood they will provide output with credible sources. For example, AI-powered search engines for research databases draw from vetted sources, whereas ChatGPT does not necessarily differentiate. Students must review output with a skeptical, critical eye to be sure any suggested sources are real, credible, and relevant to their inquiry.	Using a list of sources generated by AI without going to the original sources and reviewing the content.
Summarizing and/or interpreting sources	Using generative AI to help develop understanding of complex texts by: › Requesting help with understanding complex vocabulary or sentence structures in a source. › Asking for clarification on a confusing concept or passage in a source. **NOTE:** Students should always read the original text of the sources they intend to use to ensure they are accurately understanding and utilizing the evidence from those sources in their work	› Generating a summary or paraphrasing of the source instead of reading it. › Requesting direct quotes or citations from a source to use as evidence without independently identifying them. › Copying and pasting AI generated source summaries into the final draft.

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Phase of Work	Acceptable Use	Not Acceptable Use
Synthesizing ideas and information from sources into a literature review, report, or argument	No acceptable use. **NOTE:** Students will be asked questions in either their PREP-based in-progress meetings (AP Research) or in the checkpoints (AP Seminar) to ensure they have done this work themselves.	Asking generative AI to: › Compare or contrast sources and/or generate a review of literature. › Synthesize common or contrasting elements from within a source or across multiple sources. › Develop statements or paragraphs that put sources in conversation.
Developing an aligned method for their Research **(AP Research only)**	Summarizing commonly used methods in discipline-specific fields or reviewing benefits and drawbacks of different generic methods or methodologies. **NOTE:** Students will be asked questions in their PREP-based in-progress meetings (AP Research) to ensure that they have done this work themselves.	Using generative AI to determine the appropriate method for an individual student's research and/or providing rationales for a specific method.
Producing, summarizing and/or interpreting data **(AP Research only)**	No acceptable use. **NOTE:** Students will be asked questions in their PREP-based in-progress meetings (AP Research) to ensure that they have done this work themselves.	› Using generative AI to generate data (this would count as falsified and/or fabricated data). *The only exception would be if use of generative AI tools is the subject of the inquiry. In this case, using generative AI to generate data would be part of the method.* › Using AI to summarize or discuss their results or data.
Developing displays of data **(AP Research only)**	Using generative AI to create charts/graphs or other representations of data collected and assembled by the student.	Using generative AI to produce or generate the data itself. *See exception noted above.*
Drafting or outlining a paper	Seeking guidance on general best practices in how to structure a research paper, essay, or report. **NOTE:** Students will be asked questions (on the reasoning underpinning their choices for structure and content) in either their PREP-based in-progress meetings (AP Research) or the checkpoints (AP Seminar) to ensure that they have done this work themselves.	› Asking generative AI to produce an outline or draft of a specific paper. › Requesting generative AI to write all or part of the paper. › Using writing generated by AI in the final draft.

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Phase of Work	Acceptable Use	Not Acceptable Use
Revising a paper	› Using spell or grammar checkers. › Asking for feedback on style and tone (students must make deliberate choices on what feedback to incorporate).	› Accepting AI-generated suggestions for revisions of written work without critically evaluating such contributions. › Incorporating into student submissions new sections of text suggested by generative AI.
Creating Citations / Bibliography	› Seeking guidance on how to cite or check citations. › Generating a draft of the bibliographic listing of citations or checking the format of a student-generated draft of the bibliographic listing of citations.	› Using AI to generate citations without having directly studied the original sources. › Relying on generative AI to create the bibliographic listing of citations without then checking the accuracy of the format.
Developing Presentations	› Seeking general guidance on effective presentations. › Generating initial ideas for key points, sequence, or visuals for presentations.	› Uncritically using AI to produce the key points, visuals, or structure for presentations. › Using AI to generate a script that is memorized or read for the presentation.
Preparing for Oral Defense	No acceptable use.	Using AI to generate possible answers to potential oral defense questions (and memorizing or reading them).

REQUIRED CHECKPOINTS AND AFFIRMATIONS

To ensure students are not using generative AI to bypass work, students must complete interim "checkpoints" with their teacher to demonstrate genuine engagement with the tasks. **AP Seminar and AP Research students will need to complete the relevant checkpoints successfully to receive a score for their performance tasks. Teachers must affirm, to the best of their knowledge, that students completed the checkpoints authentically in the AP Digital Portfolio. Failure to complete the checkpoints will result in a score of zero on the associated task**.

- In AP Seminar, teachers assess the authenticity of student work based on checkpoints that take the form of short conversations with students during which students make their thinking and decision-making visible (similar to an oral defense). These checkpoints should occur during the sources and research phase (IRR and IWA), and argument outline phase (IWA only).
- In AP Research, students must complete "checkpoints" in the form of in-progress meetings and work in the Process and Reflection Portfolio (PREP).

AP Seminar and AP Research teachers are also required to affirm, to the best of their knowledge, that the student's final submission is authentic student work.

College Board reserves the right to investigate submissions where there is evidence of the inappropriate use of generative AI as an academic integrity violation and request from students copies of their interim work for review.

Vanishing Voices

By Russ Rymer

Photographs by Lynn Johnson

From *National Geographic*, July 2012

One language dies every 14 days. By the next century nearly half of the roughly 7,000 languages spoken on Earth will likely disappear, as communities abandon native tongues in favor of English, Mandarin, or Spanish. What is lost when a language goes silent?

Johnny Hill, Jr., of Parker, Arizona, is one of the last speakers of Chemehuevi, an endangered Native American language: "It's like a bird losing feathers. You see one float by, and there it goes—another word gone."

TUVAN

THE COMPASSION OF KHOJ ÖZEERI

ONE MORNING in early fall Andrei Mongush and his parents began preparations for supper, selecting a black-faced, fat-tailed sheep from their flock and rolling it onto its back on a tarp outside their livestock paddock. The Mongush family's home is on the Siberian taiga, at the edge of the endless steppes, just over the horizon from Kyzyl, the capital of the Republic of Tuva, in the Russian Federation. They live near the geographic center of Asia, but linguistically and personally, the family inhabits a borderland, the frontier between progress and tradition. Tuvans are historically nomadic herders, moving their *aal*—an encampment of yurts—and their sheep and cows and reindeer from pasture to pasture as the seasons progress. The elder Mongushes, who have returned to their rural aal after working in the city, speak both Tuvan and Russian. Andrei and his wife also speak English, which they are teaching themselves with pieces of paper labeled in English pasted onto seemingly every object in their modern kitchen in Kyzyl. They work as musicians in the Tuvan National Orchestra, an ensemble that uses traditional Tuvan instruments and melodies in symphonic arrangements. Andrei is a master of the most characteristic Tuvan music form: throat singing, or *khöömei.*

When I ask university students in Kyzyl what Tuvan words are untranslatable into English or Russian, they suggest khöömei, because the singing is so connected with the Tuvan environment that only a native can understand it, and also *khoj özeeri*, the Tuvan method of killing a sheep. If slaughtering livestock can be seen as part of humans' closeness to animals, khoj özeeri represents an unusually intimate version. Reaching through an incision in the sheep's hide, the slaughterer severs a vital artery with his fingers, allowing the animal to quickly slip away without alarm, so peacefully that one must check its eyes to see if it is dead. In the language of the Tuvan people, khoj özeeri means not only slaughter but also kindness, humaneness, a ceremony by which a family can kill, skin, and butcher a sheep, salting its hide and preparing its meat and making sausage with the saved blood and cleansed entrails so neatly that the whole thing can be accomplished in two hours (as the Mongushes did this morning) in one's good clothes without spilling a drop of blood. Khoj özeeri implies a relationship to animals that is also a measure of a people's character. As one of the students explained, "If a Tuvan killed an animal the way they do in other places"—by means of a gun or knife—"they'd be arrested for brutality."

Tuvan is one of the many small languages of the world. The Earth's population of seven billion people speaks roughly 7,000 languages, a statistic that would seem to offer each living language a healthy one million speakers, if things were equitable. In language, as in life, things aren't. Seventy-eight percent

of the world's population speaks the 85 largest languages, while the 3,500 smallest languages share a mere 8.25 million speakers. Thus, while English has 328 million first-language speakers, and Mandarin 845 million, Tuvan speakers in Russia number just 235,000. Within the next century, linguists think, nearly half of the world's current stock of languages may disappear. More than a thousand are listed as critically or severely endangered—teetering on the edge of oblivion.

In an increasingly globalized, connected, homogenized age, languages spoken in remote places are no longer protected by national borders or natural boundaries from the languages that dominate world communication and commerce. The reach of Mandarin and English and Russian and Hindi and Spanish and Arabic extends seemingly to every hamlet, where they compete with Tuvan and Yanomami and Altaic in a house-to-house battle. Parents in tribal villages often encourage their children to move away from the insular language of their forebears and toward languages that will permit greater education and success.

Who can blame them? The arrival of television, with its glamorized global materialism, its luxury-consumption proselytizing, is even more irresistible. Prosperity, it seems, speaks English. One linguist, attempting to define what a language is, famously (and humorously) said that a language is a dialect with an army. He failed to note that some armies are better equipped than others. Today any language with a television station and a currency is in a position to obliterate those without, and so residents of Tuva must speak Russian and Chinese if they hope to engage with the surrounding world. The incursion of dominant Russian into Tuva is evident in the speaking competencies of the generation of Tuvans who grew up in the mid-20th century, when it was the fashion to speak, read, and write in Russian and not their native tongue.

Yet Tuvan is robust relative to its frailest counterparts, some of which are down to a thousand speakers, or a mere handful, or even one individual. Languages like Wintu, a native tongue in California, or Siletz Dee-ni, in Oregon, or Amurdak, an Aboriginal tongue in Australia's Northern Territory, retain only one or two fluent or semifluent speakers. A last speaker with no one to talk to exists in unspeakable solitude.

Increasingly, as linguists recognize the magnitude of the modern language die-off and rush to catalog and decipher the most vulnerable tongues, they are confronting underlying questions about languages' worth and utility. Does each language have boxed up within it some irreplaceable beneficial knowledge? Are there aspects of cultures that won't survive if they are translated into a dominant language? What unexpected insights are being lost to the world with the collapse of its linguistic variety?

Fortunately, Tuvan is not among the world's endangered languages, but it could have been. Since the breakup of the Soviet Union, the language has stabilized. It now has a well-equipped army—not a television station, yet, or a currency, but a newspaper and a respectable 264,000 total speakers (including some in Mongolia and China). Yet Tofa, a neighboring Siberian language, is down to some 30 speakers. Tuvan's importance to our understanding of disappearing languages lies in another question linguists are struggling to answer: What makes one language succeed while another dwindles or dies?

TUVAN Language

Russia

Number of Speakers
235,000

[artyštaar]

To burn juniper | to purify

A Tuvan shaman cleanses the house of a deceased relative's spirit using smoke from burning juniper to chase away darkness. The incense fills the room as the family ask the spirits of hearth and home to protect them.

[songgaar]

go back | the future

[burungaar]

go forward | the past

Tuvans believe the past is ahead of them while the future lies behind. The children who flock to this bungee-cord ride outside the National Museum of Tuva look to the future, but it's behind them, not yet seen.

TUVAN

[ezenggileer]

to stirrup | to sing with the rhythms of riding a horse

The words used to describe styles of throat singing—an art among Tuvan herders—perfectly capture their distinctive sounds. Ezenggileer *evokes the pulsing rhythms of galloping on a horse.*

[khei-àt]

air horse | a spiritual place within

Ai-Xaan Oorzhak throat sings and plays the igil, *or horse-head fiddle, with bow techniques like "make horse walk." Singers use the term "air horse" to describe the spiritual depths they draw from to produce the harmonic sounds.*

TUVAN

[anayim]

my little goat

Aidyng Kyrgys caresses his newborn baby girl, whom he refers to using this tender term of endearment. The arrival of an infant is cause for a celebration and feasting for the whole family at their tiny log house.

[ak byzaa]

white calf, less than one year

Raising sheep, yaks, and goats on the Siberian steppe is so central to Tuvan life that the vocabulary for livestock is embedded with detailed information about each animal's age, gender, fertility, coloration.

AKA

THE RESPECT OF MUCROW

I WITNESSED the heartrending cost of broken languages among the Aka people in Palizi, a tiny, rustic hamlet perched on a mountainside in Arunachal Pradesh, India's rugged northeasternmost state. It is reachable by a five-hour drive through palm and hardwood jungles on single-track mountain roads. Its one main street is lined with unpainted board-faced houses set on stilts and roofed with thatch or metal. Villagers grow their own rice, yams, spinach, oranges, and ginger; slaughter their own hogs and goats; and build their own houses. The tribe's isolation has bred a radical self-sufficiency, evidenced in an apparent lack of an Aka word for job, in the sense of salaried labor.

The Aka measure personal wealth in mithan, a breed of Himalayan cattle. A respectable bride price in Palizi, for instance, is expressed as eight mithan. The most cherished Aka possession is the precious *tradzy* necklace—worth two mithan—made from yellow stones from the nearby river, which is passed down to their children. The yellow stones for the tradzy necklaces can no longer be found in the river, and so the only way to have a precious necklace is to inherit one.

Speaking Aka—or any language—means immersing oneself in its character and concepts. "I'm seeing the world through the looking glass of this language," said Father Vijay D'Souza, who was running the Jesuit school in Palizi at the time of my visit. The Society of Jesus established the school in part because it was concerned about the fragility of the Aka language and culture and wanted to support them (though classes are taught in English). D'Souza is from southern India, and his native language is Konkani. When he came to Palizi in 1999 and began speaking Aka, the language transformed him.

"It alters your thinking, your worldview," he told me one day in his headmaster's office, as children raced to classes through the corridor outside. One small example: *mucrow.* A similar word in D'Souza's native language would be an insult, meaning "old man." In Aka "mucrow" means something more. It is a term of respect, deference, endearment. The Aka might address a woman as mucrow to indicate her wisdom in civic affairs, and, says D'Souza, "an Aka wife will call her husband mucrow, even when he's young," and do so affectionately.

American linguists David Harrison and Greg Anderson have been coming to Arunachal Pradesh to study its languages since 2008. They are among the scores of linguists worldwide engaged in the study of vanishing languages. Some have academic and institutional affiliations (Harrison and Anderson are both connected with National Geographic's Enduring Voices Project), while others may work for Bible societies that translate Scripture into new tongues. The authoritative index of world languages is *Ethnologue,* maintained by SIL International, a faith-based organization.

The researchers' intent may be hands-off, to record a grammar and lexicon before a language is lost or contaminated, or it may be interventionist, to develop a written accompaniment for the oral language, compile a dictionary, and teach native speakers to write.

Linguists have identified a host of language hotspots (analogous to biodiversity hotspots) that have both a high level of linguistic diversity and a high number of threatened languages (see map, page 24). Many of these are in the world's least reachable, and often least hospitable, places—like Arunachal Pradesh. Aka and its neighboring languages have been protected because Arunachal Pradesh has long been sealed off to outsiders as a restricted border region. Even other Indians are not allowed to cross into the region without federal permission, and so its fragile microcultures have been spared the intrusion of immigrant labor, modernization—and linguists. It has been described as a black hole of linguistics because its incredible language variety remains so little explored.

Much of public life in Palizi is regulated through the repetition of mythological stories used as forceful fables to prescribe behavior. Thus a money dispute can draw a recitation about a spirit whose daughters are eaten by a crocodile, one by one, as they cross the river to bring him dinner in the field. He kills the crocodile, and a priest promises to bring the last daughter back to life but overcharges so egregiously that the spirit seeks revenge by becoming a piece of ginger that gets stuck in the greedy priest's throat.

Such stories were traditionally told by the elders in a highly formal version of Aka that the young did not yet understand and according to certain rules, among them this: Once an elder begins telling a story, he cannot stop until the story is finished. As with linguistic literacy, disruption is disaster. Yet Aka's young people no longer follow their elders in learning the formal version of the language and the stories that have governed daily life. Even in this remote region, young people are seduced away from their mother tongue by Hindi on the television and English in the schools. Today Aka's speakers number fewer than 2,000, few enough to put it on the endangered list.

One night in Palizi, Harrison, Anderson, an Indian linguist named Ganesh Murmu, and I sat cross-legged around the cooking fire at the home of Pario Nimasow, a 25-year-old teacher at the Jesuit school. A Palizi native, Nimasow loved his Aka culture even as he longed to join the outside world. In his sleeping room in an adjacent hut was a television waiting for the return of electricity, which had been out for many months thanks to a series of landslides and transformer malfunctions. After dinner Nimasow disappeared for a moment and came back with a soiled white cotton cloth, which he unfolded by the flickering light of the cooking fire. Inside was a small collection of ritual items: a tiger's jaw, a python's jaw, the sharp-toothed mandible of a river fish, a quartz crystal, and other objects of a shaman's sachet. This sachet had belonged to Nimasow's father until his death in 1991.

"My father was a priest," Nimasow said, "and his father was a priest." And now? I asked. Was he next in line? Nimasow stared at the talismans and shook his head. He had the kit, but he didn't know the chants; his father had died before passing them on. Without the words, there was no way to bring the artifacts' power to life.

LINGUISTICS HAS UNDERGONE two great revolutions in the past 60 years, on seemingly opposite ends of the discipline. In the late 1950s Noam Chomsky theorized that all languages were built on an underlying universal grammar embedded in human genes. A second shift in linguistics—an explosion of interest in small and threatened languages—has focused on the variety of linguistic experience. Field linguists like David Harrison are more interested in the idiosyncrasies that make each language unique and the ways that culture can influence a language's form. As Harrison points out, some 85 percent of languages have yet to be documented. Understanding them can only enrich our comprehension of what is universal to all languages.

Different languages highlight the varieties of human experience, revealing as mutable aspects of life that we tend to think of as settled and universal, such as our experience of time, number, or color. In Tuva, for example, the past is always spoken of as ahead of one, and the future is behind one's back. "We could never say, I'm looking forward to doing something," a Tuvan told me. Indeed, he might say, "I'm looking forward to the day before yesterday." It makes total sense if you think of it in a Tuvan sort of way: If the future were ahead of you, wouldn't it be in plain view?

Smaller languages often retain remnants of number systems that may predate the adoption of the modern world's base-ten counting system. The Pirahã, an Amazonian tribe, appear to have no words for any specific numbers at all but instead get by with relative words such as "few" and "many." The Pirahã's lack of numerical terms suggests that assigning numbers may be an invention of culture rather than an innate part of human cognition. The interpretation of color is similarly varied from language to language. What we think of as the natural spectrum of the rainbow is actually divided up differently in different tongues, with many languages having more or fewer color categories than their neighbors.

Language shapes human experience—our very cognition—as it goes about classifying the world to make sense of the circumstances at hand. Those classifications may be broad—Aka divides the animal kingdom into animals that are eaten and those that are not—or exceedingly fine-tuned. The Todzhu reindeer herders of southern Siberia have an elaborate vocabulary for reindeer; an *iyi düktüg myiys,* for example, is a castrated former stud in its fourth year.

If Aka, or any language, is supplanted by a new one that's bigger and more universally useful, its death shakes the foundations of the tribe. "Aka is our identity," a villager told me one day as we walked from Palizi down the path that wound past the rice fields to the forests by the river. "Without it, we are the general public." But should the rest of the world mourn too? The question would not be an easy one to frame in Aka, which seems to lack a single term for world. Aka might suggest an answer, though, one embodied in the concept of mucrow—a regard for tradition, for long-standing knowledge, for what has come before, a conviction that the venerable and frail have something to teach the callow and the strong that they would be lost without.

AKA Language

India

Number of Speakers
1,000-2,000

[tradzy]

a necklace of yellow stone beads

The Aka have more than 26 words to describe beads. Beyond being objects of adornment, beads are status symbols and currency. This toddler will get this necklace at her wedding.

[shobotro vyew]

to calculate bride price using twigs

The price for an Aka marriage is negotiated with bamboo sticks. The groom's side lays down a number representing money and gifts, and the bride's family counteroffers. Families can haggle for months using the same sticks.

AKA

[chofe gidego]

is looking at liver

A marriage is not recognized until after the ritual slaughter of a mithan, a type of cattle, when its liver can be read. The verdict: A small spot might signal an accident in the couple's future but otherwise a happy life.

[nichleu-nuggo]

village counselor | wise, compassionate, tolerant

Govardhan Nimasow is a rich man who married eight wives, fathered 26 children, and owns one of the few concrete houses in his village. But his status as a nichleu-nuggo *also means he possesses humility and wisdom.*

SERI

THE WISDOM OF THE HANT IIHA CÖHACOMXOJ

THE ONGOING collapse of the world's biodiversity is more than just an apt metaphor for the crisis of language extinction. The disappearance of a language deprives us of knowledge no less valuable than some future miracle drug that may be lost when a species goes extinct. Small languages, more than large ones, provide keys to unlock the secrets of nature, because their speakers tend to live in proximity to the animals and plants around them, and their talk reflects the distinctions they observe. When small communities abandon their languages and switch to English or Spanish, there is a massive disruption in the transfer of traditional knowledge across generations—about medicinal plants, food cultivation, irrigation techniques, navigation systems, seasonal calendars.

The Seri people of Mexico were traditionally seminomadic hunter-gatherers living in the western Sonoran Desert near the Gulf of California. Their survival was tied to the traits and behaviors of the species that live in the desert and the sea. An intimate relationship with the plant and animal worlds is a hallmark of the Seris' life and of their language, Cmiique Iitom.

Traditionally the Seris, who refer to themselves as the Comcaac, had no fixed settlements, so their locale of the moment depended on what part of the desert offered the most food, whether the cactus fruit was ripe on the mountainside or the eelgrass was ready to harvest in the bay. Today they reside in two settlements, Punta Chueca and El Desemboque, each a small covey of concrete-block homes set in the vast red, seemingly empty desert beside the gulf. The homes are surrounded by rows of thorny ocotillo canes stuck into the sand, where they've taken root as living fences.

Each day, Armando Torres Cubillas sits in the corner of his open-air, beachside atelier in El Desemboque, his crippled legs curled under him on the sandy ground, carving sea turtles from dark desert ironwood. Occasionally, if he's in the mood, he gazes out over the gulf and eases the artisanship with a song that relates the operatic story of a conversation between the small beach clam *taijitiquiixaz* and the mole crab. The verse is typical of songs of the Seri tribe: a celebration of nature, tinged with loss.

The Seris see their language as a defining characteristic, a seed of their identity. One Seri told me of a "local expression" that says everyone has a flower inside, and inside the flower is a word. A Seri elder, Efraín Estrella Romero, told me, "If one child is raised speaking Cmiique Iitom and another speaking Spanish, they will be different people."

When American linguists Edward Moser and Mary Beck Moser came to live with the Seris in 1951 in El Desemboque, the group's fortunes were at a low ebb—outbreaks of measles and influenza had reduced their numbers to a couple hundred. It was a propitious time for the

researchers, though, because the group's culture hadn't yet been co-opted by the majority culture surrounding it. Mary Moser served the tribe as nurse and midwife. After many births, per custom, the families gave her a dried piece of their infants' umbilical cords, which Mary kept protected in a "belly button pot." They also gave her their long, eight-plait braids, markers of Indian identity that the men felt compelled to chop off when they traveled to Mexican towns. The braids were like cultural umbilical cords, severed connections between what was old and what was new, evidence of the broken link.

The Mosers had a daughter, Cathy, who grew up among the Seris in El Desemboque and became a graphic artist and ethnographer. She and her husband, Steve Marlett, a linguist with SIL International and the University of North Dakota, have continued the Mosers' study of the Seri language. Today the community has rebounded to somewhere between 650 and 1,000 speakers. They have managed to hang on to their language, thanks in part to their hostility to the majority culture of Mexico. Steve Marlett diplomatically refers to this in one academic paper as "the general lack of cultural empathy between the Seri population and the Spanish-speaking population." In 1773 they killed a priest who tried to establish a mission. The Vatican did not send a follow-up, and the tribe was never Catholicized.

The Seris maintain to this day a proud suspicion of outsiders—and a disdain for unshared individual wealth. "When the Seris become rich, they will cease to exist" is a Seri saying. Having been nomadic, they tend to regard possessions as burdens. Traditionally, when a Seri died, he was buried with his few personal possessions. Nothing was passed down to relatives except stories, songs, legends, instructions.

What modern luxuries the Seris have adopted are imported without their Spanish names. Automobiles, for instance, have provoked a flurry of new words. A Seri car muffler is called *ihíisaxim an hant yaait,* or into which the breathing descends, and the Seri term for distributor cap associates it with an electric ray that swims in the Gulf of California and gives you a shock. Such words are like ocotillo canes stuck into the sand: The Cmiique Iitom lexicon is alive, and as it grows, it creates a living fence around the culture.

Sitting in the shade of an awning in front of his house, René Montaño told me stories of an ancient race of giants who could step over the sea from their home on Tiburon Island to the mainland in a single stride. He told me of *hant iiha cöhacomxoj,* those who have been told about Earth's possessions, all ancient things. "To be told" entails an injunction: Pass it on. Thanks to that, we have all become inheritors of the knowledge enshrined within Cmiique Iitom. Folk sayings and often even single words encase centuries of close observation of species that visiting scientists have only begun to study in recent decades.

Cmiique Iitom has terms for more than 300 desert plants, and its names for animals reveal behaviors that scientists once considered far-fetched. The Seri word for harvesting eelgrass clued scientists in to the sea grass's nutritional merits. (Its protein content is about the same as wheat's.) The Seris call one sea turtle *moosni hant cooit,* or green turtle that descends, for its habit of hibernating on the floor of the sea, where the traditional fishermen used to harpoon it. "We were skeptical when we first learned from the Seri Indians of Sonora, Mexico, that some *Chelonia* are partially buried on the sea floor during the colder months," stated a 1976 paper in *Science* documenting the behavior. "However,

the Seri have proved to be highly reliable informants." The Seris enjoyed eating sea turtles but not leatherbacks, for a simple reason. Leatherbacks, they say, understand their language and are Seri themselves. In 2005 the Seri name for shark, *hacat,* became the official name for a newly discovered species of smooth-hound shark, *Mustelus hacat.* Newly discovered by modern scientists, that is—the Seris had been aware of them for years.

The Seri language is what linguists call an isolate, though a better term might be "sole survivor." "The Seris are a window into a lost world of gulf peoples," Steve Marlett says, referring to the extensive family of potentially linguistically linked groups who once inhabited both coasts of the Gulf of California. "Many others are gone," he says, and worse, gone before they could be documented. One remaining key to the nearly vanished cultures is Cmiique Iitom.

ONE WAY TO PRESERVE a language is to enshrine it in writing and compile a dictionary. Linguists both love and fear the prospect of inventing scripts for languages that are usually verbal only. Fear because the very idea of an alphabet changes the language the alphabet is meant to preserve and converts the linguist from observer to activist. David Harrison and Greg Anderson compiled the first Tuvan-English dictionary and are proud of the excitement the volume elicited from native speakers. Steve and Cathy Marlett worked until 2005 finishing a Cmiique Iitom dictionary begun by her parents in 1951. Steve remembers the day René Montaño asked, "Can I show you how I write?" and demonstrated a way of dividing words that had not occurred to the linguist before. The revelation meant revising years of work. But Marlett was delighted, because the project was enlisting native Seri speakers into diagnosing and defining their own language.

The cataloging of vocabulary and pronunciation and syntax that field linguists do in remote outposts helps keep a language alive. But saving a language is not something linguists can accomplish, because salvation must come from within. The answer may lie in something Harrison and Anderson witnessed in Palizi one day, when a villager in his early 20s came with a friend to perform a song for them. Palizi is far removed from pervasive U.S. culture, so it was something of a surprise to the two linguists when the teenagers launched into a full-bore, L.A.-style rap song complete with gang hand gestures and head bobbing and attitude, a pitch-perfect rendition of an American street art, with one refinement: They were rapping in Aka.

Were the linguists dismayed? I asked. To the contrary, Harrison said. "These kids were fluent in Hindi and English, but they chose to rap in a language they share with only a couple thousand people." Linguistic co-optation and absorption can work both ways, with the small language sometimes acting as the imperialist. "The one thing that's necessary for the revival of a language," Father D'Souza told me one day, "is pride."

Against the erosion of language stands an ineffable quality that can't be instilled from without: someone's insistence on rapping in Aka, on singing in Tuvan, on writing in the recently orthographized Cmiique Iitom. The Mosers' and Marletts' dictionary initiative has given birth to a new profession in Seriland: scribe. Several booklets have been authored by Seris. The Marletts hope the number of volumes will reach 40, one threshold, it is believed, for enticing people to maintain literacy in a language (though some put the number much higher).

The interest is already there. The Marletts had a regular visitor when they were living in El Desemboque, a young boy who would come each day to pore over a Cmiique Iitom booklet. One day he arrived, and the Marletts explained they'd lent it to someone else. "He just burst into uncontrollable tears," Steve remembers.

The spread of global culture is unstoppable. Kyzyl, a capital city that never had a railroad connect it to the rest of Russia, will get one in the next few years. In El Desemboque power lines have been run through the desert to drive an electric pump for a municipal well. And in Arunachal Pradesh a new hydroelectric dam has been completed, ensuring the village of Palizi better access to electricity, refrigeration, and television.

To be involved in the plight of vanishing languages, even just as a journalist, is to contemplate the fragility of tribal life. Since my visits over the past two years to Palizi and Kyzyl and Seriland, Efraín Estrella died of pancreatitis, and young Pario Nimasow, who unwrapped his father's shaman's kit for me and wondered what its contents might mean, was killed in a landslide. A week after I wrote the paragraph describing Armando Torres's daily singing, I received an email from Cathy Marlett. "Sad news," its subject line read. Torres had died of a heart attack at 67, in his place by the beach in El Desemboque.

Their mortality is a reminder of the mortality of their cultures, an intimation that with each speaker's death another vital artery has been severed. Against that—against the possibility that their language could slip away without alarm or notice—stands a proud perseverance, a reverence for the old, an awareness that in important ways a key to our future lies behind us. That, and an insistence that the tongues least spoken still have much to say.

SERI Language

Mexico

Number of Speakers
650-1,000

[ziix quih haasax haaptxö quih áno cöcacaaixaj]

one who strongly greets with joy/peace/harmony

There is no greeting among the Seris akin to a handshake or wave. But Josué Robles Barnett demonstrates a gesture that used to be performed when arriving in a strange community to convey you meant no harm.

[hant iiha cöhacomxoj]

ones who have been told the ancient things

She's blind and nearly deaf, but Isabel Chavela Torres still passes on traditional knowledge. The Seri names for species in the Sonoran Desert and Gulf of California reveal behaviors scientists have only recently begun to discover.

SERI

[hepem cöicooit]

one who dances like the white-tailed deer

Chavela's grandson Jorge Luis Montaño Herrera shakes gourd rattles and assumes the identity of a deer. Just as his grandmother once sang him traditional melodies, he now wants to teach the deer dance to Seri children.

[ziix hacx tiij catax]

thing that moves on its own

As modern inventions like cars enter their world, the Seris tend to adapt their language rather than import Spanish words. Erica Barnett uses an abandoned car as a hothouse to grow mangroves to replenish an estuary.

SERI

[atcz | azaac]

daughter of a parent's younger sibling | daughter of a parent's older sibling

The Seris have more than 50 terms for kinship relationships, such as between these two cousins, many specific to the gender and birth order of the relative. A woman uses a different word for father than a man does.

[Miixöni quih zó hant ano tiij?]

Where is your placenta buried?

This is how the Seris ask, Where are you from? Those who were born before hospital births know the exact spot where their afterbirth was placed in the ground, covered in sand and ash, and topped with rocks.

LAST SPEAKERS

EUCHEE Language

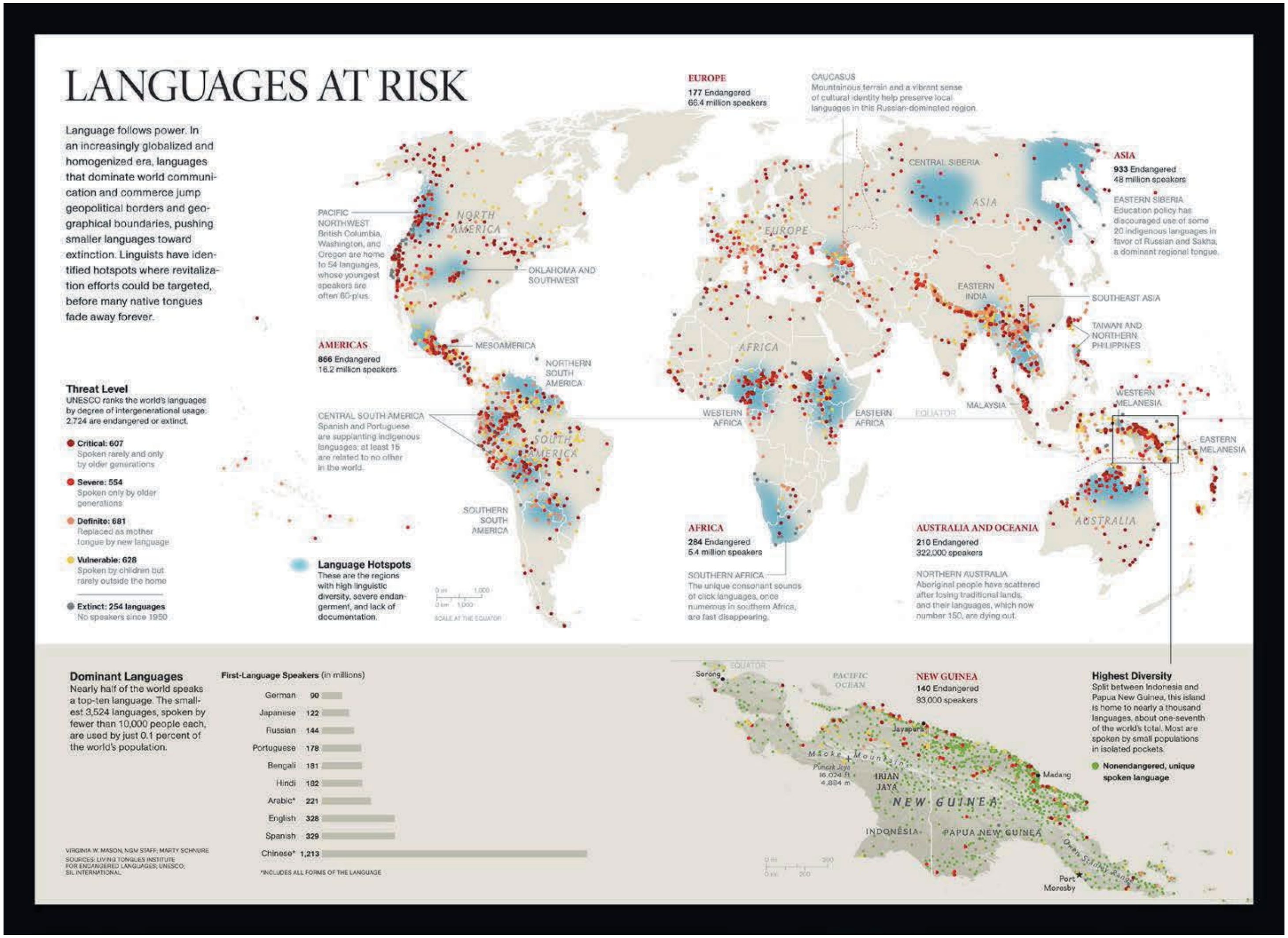
Oklahoma

K'asA Henry Washburn, 86, is one of only four fluent speakers of Euchee left. Every day he drives ten miles from his home in West Tulsa to the Euchee Language House, where children are learning their native tongue. As a result, Euchee students sometimes get in trouble again for speaking their ancestral language in school. Richard Grounds, director of the project that is recording Washburn's memories, calls him a "living dictionary."

WINTU Language

California

Caleen Sisk is the spiritual leader and tribal chief of the Winnemem Wintu tribe—and a last speaker of the language that sustains her people's identity. For more than a hundred years tribal members have been fighting with the U.S. government over their territory along the McCloud River, abutting Mount Shasta, which they consider their birthplace. Loss of land and loss of language are connected, says Sisk. "This land is our church."


LANGUAGES AT RISK
Language follows power. In an increasingly globalized and homogenized era, languages that dominate world communication and commerce jump geopolitical borders and geographical boundaries, pushing smaller languages toward extinction. Linguists have identified hotspots where revitalization efforts could be targeted, before many native tongues fade away forever.
Threat Level
UNESCO ranks the world's languages by degree of intergenerational usage. 2,724 are endangered or extinct.
Critical: 607
Spoken rarely and only by older generations
Severe: 554
Spoken only by older generations
Definite: 681
Replaced as mother tongue by new language
Vulnerable: 628
Spoken by children but rarely outside the home
Extinct: 254 languages
No speakers since 1950
Language Hotspots
These are the regions with high linguistic diversity, severe endangerment, and lack of documentation.
PACIFIC NORTHWEST
British Columbia, Washington, and Oregon are home to 54 languages, whose youngest speakers are often 60-plus.
NORTH AMERICA
OKLAHOMA AND SOUTHWEST
AMERICAS
866 Endangered
16.2 million speakers
MESOAMERICA
NORTHERN SOUTH AMERICA
CENTRAL SOUTH AMERICA
Spanish and Portuguese are supplanting indigenous languages; at least 15 are related to no other in the world.
SOUTH AMERICA
SOUTHERN SOUTH AMERICA
SCALE AT THE EQUATOR
EUROPE
177 Endangered
66.4 million speakers
CAUCASUS
Mountainous terrain and a vibrant sense of cultural identity help preserve local languages in this Russian-dominated region.
CENTRAL SIBERIA
ASIA
ASIA
933 Endangered
48 million speakers
EASTERN SIBERIA
Education policy has discouraged use of some 20 indigenous languages in favor of Russian and Sakha, a dominant regional tongue.
EASTERN INDIA
SOUTHEAST ASIA
TAIWAN AND NORTHERN PHILIPPINES
AFRICA
WESTERN AFRICA
EASTERN AFRICA
EQUATOR
MALAYSIA
WESTERN MELANESIA
EASTERN MELANESIA
AFRICA
284 Endangered
5.4 million speakers
SOUTHERN AFRICA
The unique consonant sounds of click languages, once numerous in southern Africa, are fast disappearing.
AUSTRALIA AND OCEANIA
210 Endangered
322,000 speakers
NORTHERN AUSTRALIA
Aboriginal people have scattered after losing traditional lands, and their languages, which now number 150, are dying out.
AUSTRALIA
Dominant Languages
Nearly half of the world speaks a top-ten language. The smallest 3,524 languages, spoken by fewer than 10,000 people each, are used by just 0.1 percent of the world's population.
First-Language Speakers (in millions)
German 90
Japanese 122
Russian 144
Portuguese 178
Bengali 181
Hindi 182
Arabic* 221
English 328
Spanish 329
Chinese* 1,213
*INCLUDES ALL FORMS OF THE LANGUAGE
VIRGINIA W. MASON, NGM STAFF; MARTY SCHNURE
SOURCES: LIVING TONGUES INSTITUTE FOR ENDANGERED LANGUAGES; UNESCO; SIL INTERNATIONAL
PACIFIC OCEAN
NEW GUINEA
140 Endangered
83,000 speakers
Sorong
Jayapura
Madang
IRIAN JAYA
NEW GUINEA
INDONESIA
PAPUA NEW GUINEA
Port Moresby
Highest Diversity
Split between Indonesia and Papua New Guinea, this island is home to nearly a thousand languages, about one-seventh of the world's total. Most are spoken by small populations in isolated pockets.
Nonendangered, unique spoken language

"Chapter XVI: The Life of the Peasants," from *Life on a Mediaeval Barony* (Harper & Brothers, 1922)

Chapter XVI: The Life of the Peasants.

THUS have been seen Messire Conon and his familiars in their pleasures, feasts, and wars. The gentle folk seem to monopolize all the life of the barony. Yet at best they number scarce one in a hundred of all the Christians who dwell therein. Assuredly the poor and humble seem much less interesting and command less attention. They have no splendors, no picturesque fêtes or feuds. A life of monotonous poverty seldom detains the chronicler; nevertheless, it is time to visit the village of huts so often seen spreading beyond the bridge to the west of the castle.

The St. Aliquis peasants are told that they have naught whereof to complain. They have a kindly seigneur who "renders justice." Since the Foretvert feud, no war has ravaged them. The saints of late have sent neither short crops nor pestilence. To repine against their lot is ingratitude toward God.

There is abundant class consciousness in the Feudal Ages. Clerks, knights, peasants—every man knows to which of the three great categories of humanity he belongs, and acts accordingly.

A monkish preacher[1] pictures the world as a vast body whereof the clerics are the eyes, for they show

[1] This cleric, Jacques of Vitry, may have written a few years later than the presumable date of this narrative, but it represents entirely the orthodox viewpoint of A.D. 1220.

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to all men the way to safety; the noble knights the hands and arms, for God orders them to protect the Church and the weak and to promote peace and justice; finally the common people (*minores*) form the lower parts of the body—it is their business to nourish the eyes and limbs. More bluntly still, as long ago as about A.D. 1000, Bishop Adelberon of Laon had divided mankind into two great divisions—first, the clergy who prayed and the seigneurs who fought; second, the toilers; adding that "to furnish all with gold, food, and raiment—such is the obligation of the servile class."

Since these classes are clearly ordained of Heaven, to rebel against one's status is manifestly questioning the justice of Providence—a damnable impiety.

Few of the St. Aliquis peasants ever dream of being anything but villeins. They regard gentlefolk somewhat as good Christians regard angels—as beings of another sphere. All they hope for is kindly treatment and modest prosperity within the limits providentially assigned them. Therefore, they are not too unhappy.

If we go up and down France we shall find the rural population decidedly dense.[1] One little village usually follows another closely and every collection of huts swarms with human bipeds. There are, indeed, vast forests and marshes which might with better management be put under the plow, but the extent of arable land is great. Heaven surely loves the peasants, it has made so many of them. Seemingly their number is limited merely by the question of food supply.

[1] It has been estimated that the rural population of France in the thirteenth century was almost as great as in the twentieth. There was probably a decided falling off, in the fourteenth century, thanks to the Black Death (1348) and the ravages of the Hundred Years' War.

Danger of Great Famines

If the condition of the peasantry often seems bad, it is comforting to know that for the last two centuries it has been improving. Not for many years have matters

GROUP OF PEASANTS AND OF SHEPHERDS
(Twelfth century), from a window in the cathedral of Chartres.

in the St. Aliquis region been as they were in some parts of France during the terrible famine of 1030–32. At that time we are told that the poor devoured grass, roots and even white clay. Their faces were pale, their bodies lean, their stomachs bloated, "their voices thin and piping like the voice of birds." Wolves came out of forests and fed on children. Strangers and travelers were liable to be waylaid in solitary spots and killed simply that they might be eaten. Near Macon a "hermit" at last was seized who had lured wayfarers to share the hospitality of his cell. The skulls of forty-eight victims were there discovered, after which they burned the wretch alive.

You can go on multiplying stories about famines—

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how human flesh at times was sold in markets; how starving children were lured by the offers of a bit of food to places where ghouls could kill and feast on them; how a measure of corn rose to sixty sous in gold; and how even the very rich "lost their color." These days, thanks be to the saints, seem disappearing; yet the danger of pinching hard times is still a real one, even in fortunate St. Aliquis.[1]

The peasants of Messire Conon are free. The serfs of the barony had been manumitted about a hundred years earlier, by a baron who (after an extremely iniquitous life) was admonished on his deathbed by his confessor that he must do something extraordinary for the salvation of his soul.[2] As a result the St. Aliquis peasants were no longer bound to the soil and could quit the seigneury—as serfs assuredly could not do. They could also marry any women they wished without asking their lord's consent or paying him a fee. They could bequeath their goods without having him sequester an outrageous part. All this, of course, improved their status, yet they were still subject to numerous imposts in money and kind, and to various forms of forced labor. Although they had now the legal right to quit the barony, only with the greatest difficulty could they sell their little farms and chattels thereon, so they could take a decent share of their possessions elsewhere; and

[1] By 1220 these wholesale famines were really becoming matters of tradition, thanks to better transportation and better methods of agriculture. Very lean years, almost ruinous to the peasantry, remained, however, as extremely grim possibilities.

[2] In Brittany, and, somewhat less generally in Normandy, most of the peasants at this time were free. In Champagne and central France there were still so many serfs that very possibly the peasants of St. Aliquis were more fortunate than the majority of the villeins on neighboring baronies. The advantages of the free peasants over the serfs have, however, been somewhat exaggerated.

if they wandered to distant parts, the local authorities were likely to call them "masterless men" and assume that if they had forsaken their old lord they must somehow be criminals.

Nevertheless, it is much better to be a free peasant than a serf. The majority of the French lower classes are now becoming free, although in other Christian lands, notably Germany, serfage will prevail for a weary day hereafter.

But even though one becomes free, he is a villein still. The taint of ignoble blood clings like a shirt of pitch, even after achieving prosperity and wealth. Knightly opinion is expressed by that great troubadour, Bertran de Born: "I love to see the rich churl in distress if he dares to strive with nobles. I love to see him beg his bread in nakedness."

Even a well-disposed lord looks on a peasant largely as a source of income. In time of peace the taxes and forced labor squeezed out of him yield that which presently turns into destrers, silvered hauberks, furs, hawks, fair dames' luxuries, dowries, adubbements, tourneys. In time of war he exists to be pillaged and massacred, in order to impoverish his master by ruining the latter's revenues. The burghers of the towns are a little more respected. Their industrial products are needful. They can better protect themselves. But the richest syndic of a commune cannot really hold up his head socially with the unknighted bachelor who drags out life in a tumble-down manor house.

At every turn the peasant finds himself exploited. He must pay a direct tax supposedly proportioned to the size and yield of his farm. That is only the beginning. When his wife has bread to bake, it must be taken to the lord's oven. One loaf in so many goes as the fee.

Life on a Mediaeval Barony

The flour must be ground up in the lord's mill—again for a fee. The grapes must be pressed out in the lord's winepress. The sheep must be driven into the lord's sheepfold every night, that he may get the manure. Every dispute must be arbitrated before the lord's provost or the great man himself—more fees. In short, the whole régime aims to compel the peasant to go to his seigneur for everything he needs, so that he will have extremely little business to transact away from the seigneury. Doubtless it is a convenience often to find things commonly needful always at hand. There is a certain return for many of the exactions. But the seigneur does not act out of benevolence. If the peasants wish, for example, to set up their own ovens, they must pay the seigneur the equivalent of the baker's fees of which he is deprived. If they then wish to bake their own bread, he is now quite indifferent.

Besides the imposts and numerous fees (***banalités***) the peasants owe the ***corvées***, payments by labor. A large part of every seigneury is "domain land"—for the lord's own personal use. The peasants are obliged to give a certain number of days to keep this plowed and tilled, mow the meadows, bring in the hay, dress the vines. They must also see that the castle has its firewood and fodder; clean out the moat; help keep the fortifications in repair; and assist on many extraordinary occasions.[1] For this they get no pay, although they may be given their rations during the days of labor.

[1] The list of curious ***corvées*** required of peasants on various seigneuries is a long one. On one fief they were expected to beat the water of the castle moat to stop the noise of the frogs whenever the mistress was sick. Or on certain specified occasions they had to perform some absurd service: to hop on one leg, to kiss the latch of the castle gate, go through some drunken horseplay in the lord's presence, or sing a broad song in the presence of his lady.

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Oppressive Seigneurial Officers

In time of war they do almost everything from helping to defend the castle to marching on offensive campaigns as part of the ban—serving, as we have seen, as grooms, baggage attendants, diggers, and engineers, and also as the despised, but sometimes useful, infantry pikemen.

Such are the burdens of the St. Aliquis peasants. They burn holy candles of thankfulness, however, that Baron Conon does not multiply their troubles by intrusting the collection of his imposts and the administration of his forced labor to outrageous officers. Sire Macaire, the provost, is harsh toward real offenders and strict in exacting the last *sol* or sheaf in just debts, but he is no blackmailer, as is Foretvert's general factotum. In old Baron Garnier's day, of course, there had been a provost who not merely levied abominable imposts, diverting a share thereof toward his own pocket, but who would accuse poor men falsely of theft and then take bribes for condoning their alleged offenses, all the time that he was dividing the profits of real bandits whom he protected.

Even more obnoxious can be the forester who controls the hunting preserves and grazing grounds. He decides how the peasants' pigs may be turned out in the oak forests, how and when firewood may be cut, and he battles incessantly with the multitudinous poachers. A few years ago even Conon was deceived by a fellow in his employ, one Maître Crispin. He was "a very handsome man with fine carriage and well armed with bow and sword." No one could *congé* more gracefully to Madame Adela, or do more to help messire to discover a great boar, but all the while he was filling his own chest. For example, he seized lame Georges' oxen on the pretext that he had cut three oaks and a birch in the seigneur's forest—yet he would forget the crime if

Georges could find him one hundred sous! Fortunately Sire Macaire discovered the evil ways of his lieutenant, and Conon, exceedingly incensed, had the smooth Crispin turned over to Maître Denis and his halter after abrupt formalities. The present forester, taught by example, is more honest, although of course, all the real poachers curse him.

A great part of the peasant's time is spent neither in working nor in resting, but in walking. Few are so lucky as to have all their land in a single compact plot. Even a rather poor peasant has his farm scattered in several tiny holdings, possibly at the four quarters of the neighborhood. When a peasant dies, his children all divide the paternal estate, and if a separate piece of ground cannot be provided for each heir, some lots must be subdivided smaller still. The St. Aliquis lands

PEASANTS AT WORK
From a manuscript of the thirteenth century (Bibliothèque nationale).

thus present a curious sight—innumerable little parcels scattered everywhere, each carefully fenced off and each growing its own separate crops. Meantime their owners begin in the morning toiling with their heavy mattocks, on one of their holdings, then on to the next, and so on until sundown. Thus they trudge several miles, and yet are seldom far from their village, whither they must all return at dusk.

Primitive Agricultural Methods

Men of more fortunate days will be astonished when they survey the agricultural methods of even the least stupid peasants. Everything is according to traditions—"so it was with our fathers." In the abbey library there are some Latin books about agriculture. They deal with conditions in ancient Italy, however, not feudal France. The most benevolent monk hardly dreamed of examining his Cato or Columella to learn how to better the lot of the peasantry, though in fairness it should be said that the abbey farms enjoy on the whole a much superior cultivation. Not all peasants can own plows; they borrow or hire from their neighbors, or break the ground with the clumsy mattocks. What plows exist have only wooden plowshares. The wheat in St. Aliquis is beaten out by flails, although a little farther south it is trodden out by cattle. The soil is often impoverished, and it is usual to leave one-third fallow all the time to recuperate. Such a thing as "rotation of crops" is still a matter of vague talk save on some of the monastery lands.

Under these circumstances, even in the best of years, there is not much surplus of food. A short crop means misery. Men pessimistically expect a famine on the average of one in every four years. If there has not been one of late in St. Aliquis, it is because the saints are rich in mercy. "In 1197 a countless throng died of hunger," significantly wrote a chronicler in Rheims. Naturally, the villeins seldom get enough ahead to be able to learn the practices of thrift. If the year has been good, with an extra supply of corn in the barns, and plenty of pigs and chickens fattening, the winter will be spent in gorging and idleness. By spring the old crop is exhausted almost to the seed corn; then perhaps the new crop will be a failure. The next winter these

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same peasants may be glad to make a pottage of dead leaves.

Lame Georges, who had his oxen sequestered, is, despite his misfortunes, one of the most prosperous peasants in the village. He limps because in his youth a retainer of Baron Garnier's twisted one of his feet while trying to extort money. Georges is really only forty-five years old, but to see his gray head, gnarled face, and bent back you would think him sixty. His wife Jeanne is four years younger than he, but looks as aged as her husband. "Old Jeanne," the children call her. The pair have been blessed with at least fifteen children, but four of these died in childbirth, and five more before they could grow up. The other six are, all but the youngest, married already and Jeanne has been a grandmother for several years.

Georges' house stands near the center of the village. To reach it you pick your way down a lane usually deep in mud. In front of each fenced-in cottage there is an enormous dungheap, beloved by the hens and pigs, which roam about freely. Georges' one-story dwelling is an irregularly built, rambling structure of wood, wattles, and thatch, all of dirty brown. This "manse" stretches away in four parts. The rearmost contains the corn cribs, the next mows for hay and straw, then the cattle sheds; and nearest, and smallest, the house for the family.

Pushing back the heavy door, after lifting the wooden latch, one enters a single large room; the timbers and walls thereof are completely blackened by soot. There is really only one apartment. Here everything in the household life seems to go on. The floor is of earth pounded hard. Upon it are playing several very dirty, half-naked children, come over to visit "grandmother,"

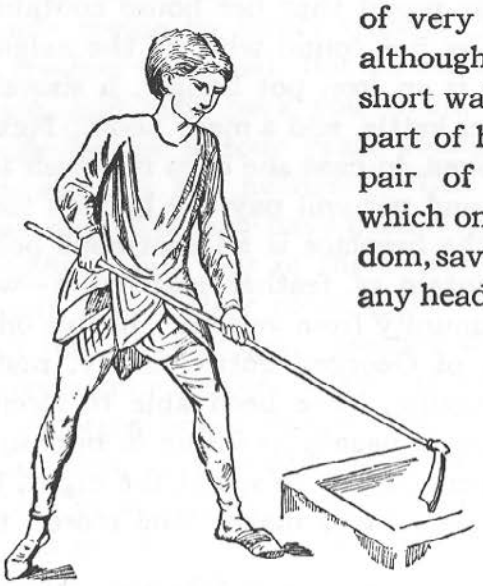
and just now they are chasing two squealing little pigs under the great oak table near the center. One makes no account of a duck leading her goslings in at the door in hopes of scraps from the dinner. A hen is setting on eggs in a box near the great fireplace.

Jeanne has just kindled a lively fire of vine branches and dry billets. She is proud that her house contains many convenient articles not found with all the neighbors. By the fireplace is an iron pot hanger, a shovel, large fire tongs, a copper kettle, and a meat hook. Next to the fireplace is an oven, in case she does not wish to use that at the castle and yet will pay the baron's fee. On the other side of the fireplace is an enormous bed, piled with a real mountain of feather mattresses—we do not discuss their immunity from vermin. In this one bed a goodly fraction of Georges' entire family, male and female, old and young, have been able to sleep; of course, with their heads usually pointing in opposite directions. If a stranger chances to spend the night, it will be hospitable to ask him to make "one more" in that selfsame bed!

If the goodman takes us about his establishment we shall find that, in addition to various stools and benches, he owns a ladder, a mortar and pestle for braying corn, a mallet, some crudely shaped nails, a gimlet, a very imperfect saw, fishing lines, hooks, and a basket. He is fortunate enough also to own a plow, and, in addition, a scythe, an iron spade, a mattock, a pair of large shears, a handy knife, and a sharpening stone. He has replaced the stolen oxen with another pair and owns a two-wheeled wagon with a harness of thongs and ropes. Besides the oxen, there are three milch cows in his barn, and he has a hennery and pigpen. The place seems also to abound with long, lean cats, very wild, who gain a

living by hunting the numerous rats and mice which lurk in the dense thatch of the roofs.

Georges himself wears a blouse of dirt-colored cloth, or sometimes of sheepskin, fastened by a leathern belt. In cold weather he has a mantle of thick woolen homespun, now also dirt color, to his knees. He has a pair of very heavy leathern boots, although not seldom he goes on short walks barefoot. The lower part of his body is covered by a pair of loose woolen trousers which once were blue. Very seldom, save in storms, does he wear any headdress; then he produces a kind of cap of the same dirty woolen as his coat. As for gloves, he never wears them except when hedging. Jeanne's costume is much the same, with a few changes to make it suitable for women. In her chest she has, however, a green bliaut of Flanders wool made somewhat in imitation of those she has seen at the castle, and it even is beautified with red and purple embroidery. This bliaut she wears with pride on great festival days, and in it, despite the envious hopes of her daughters and daughters-in-law, she expects at last to be buried.

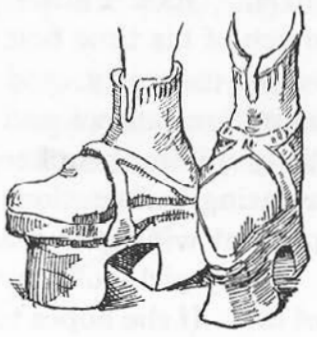


A LABORER, THIRTEENTH CENTURY
Restored by Viollet-Le-Duc, from the manuscript of Herrade of Landsberg.

Georges' house is considerably better than many others. Some of his neighbors live in mere cabins that are barely weather tight. They are made of crossed laths stuffed with straw or grass, and have no chimney.

Very Poor Peasants

The smoke from the hearth escapes through a small hole in the roof (where the thatch is very liable to take fire) or merely through the door. None of these houses has glass windows. Georges fastens his few openings with wooden shutters, but poor Alard near by has to close his apertures by stuffing them up with straw, if it is too cold to leave them open. Alard, too, is without a bed. His family sleep on thin pallets of straw laid on the ground, with a few ragged blankets. There are plenty of peasants who have not even the straw.



PEASANT SHOES
Twelfth century (abbey church of Vézelay)

A REAPER
From the doorway of the cathedral of Amiens.

Alard inevitably has no cows, no oxen or cart, no plow, and only a few rude tools. He and his are barely able to satisfy the provost's men by grinding field labor, and have still enough grain laid up to carry them till the next harvest. If it is a little too dry, a little too wet, if, in short, any one of a number of untoward things happen, by next spring he, with his bent and bony wife and his five lean children, will all be standing at the castle or abbey gate with so many other mendicants to cry their "Bread! For the love of Christ, a little bread!"

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Life on a Mediaeval Barony

The peasants marry as early as do the nobility. Of the moral condition of many of them it is best to say little. Good Father Étienne, the parish priest, spends much of his time first in baptizing infants of unacknowledged paternity, and then in running down their presumptive fathers and forcing the latter to provide for their children's upkeep. But a girl can often indulge in amazing indiscretions and later find some self-respecting peasant willing to marry her.

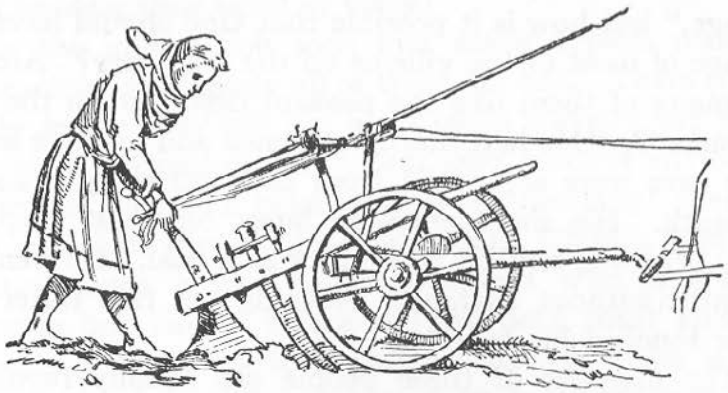
Every girl looks forward to her marriage as the climax of life. If she hopes to find a husband in the coming year, she will dance around a bonfire, then cast some pins into a bubbling fountain. If these are thrown to the surface it is a sign the right swain will come along. When drawing water from a well, if she can throw into it an egg cracked upon the head of some companion, she can see in the water the image of her future husband. As for the young men, when one of them decides he wishes to marry a certain girl, he often comes to her parents, presenting a leathern bottle of wine. If they drink of the same his suit is accepted. However, if he is uncertain of his reception by the maiden herself, he invites himself to dinner at her home. If at the end she serves him with a dish of walnuts, it is a clear token that he is rejected. He had better slink away.

A MARRIAGE IN THE THIRTEENTH CENTURY
From a manuscript of the Bibliothèque nationale (Bordier et Charton).

On the wedding day, if the bride has always been sage and modest, the neighbors present her with a white hen, but her mother gives her a piece of fine cloth, to make a gala dress which will serve ultimately for a

shroud. At the ceremony itself the great question is, "How will the wedding ring slip on?" If easily the bride will be docile. If it goes on tightly she will rule her husband!

The peasants need every kind of public and private holiday. On ordinary days toil begins at gray dawn and usually continues until dusk. There are no eight-



A PLOW
Restored by Viollet-Le-Duc, from a manuscript of the thirteenth century at the Seminary of Soissons.

hour laws; even the "nooning" is short, although sometimes there is time taken out in hot weather for a siesta during the afternoon. The women labor in the fields as hard as do the men. Children begin weeding, digging, and carrying when very little. Their help is so important that many peasants look on large families as assets of so much unpaid field labor, rather than as liabilities which they must clothe and feed until the children reach maturity. Education is almost unknown. One or two very bright boys from the village somehow have been caught by the churchmen and trained for the priesthood. There is even a story of a lad born in a neighboring seigneury who thus rose to be a bishop! But such cases are very

exceptional. In the whole village by St. Aliquis, Father Etienne is the only person who understands the mysteries of reading and writing, except two assistants of the provost, who have to keep accounts for the baron.

It is very hard for great folk to understand such teachings of the Church as that "all men are brethren." "Doubtless it is true," Adela and Alienor have often told each other, that "God created man in His own image," but how is it possible that God should have the image of most of the villeins on the seigneury? Are not so many of them like the peasant described in the epic "Garin"? "He had enormous hands and massive limbs. His eyes were separated from each other by a hand's breadth. His shoulders were large, his chest deep, his hair bristling, and his face black as a coal. He went six months without bathing. Nothing but rain water had ever touched his face."

The manners of these people are equally repulsive. Countless ballads as well as monks' sermons and treatises represent your typical villein as incessantly discontented, scolding about the weather, which is always too wet or too dry, treating his wife like an animal, hauling her about by the hair. Lately at the castle a jongleur told this anecdote: "A certain peasant showered his wife with blows on principle. 'She must have some occupation,' said he, 'while I work in the field. If she is idle she will think of evil things. If I beat her she will weep the whole day through, and so will pass the time. Then when I return in the evening she will be more tender.'" According to other stories, however, many peasants are clever, aggressive, and insolent—well able to care for themselves.

The castle folk and the burghers are none too careful in sanitary matters, but even to them the peasants are

Filthy Habits of Peasants

disgustingly filthy. They relate in Pontdebois this story: "Once a villein, leading some donkeys, went down the lane of the perfumer's shops. Instantly he fainted at the unaccustomed odor. They brought him to, however, by holding a shovel full of manure under his nose." Another story (told at the monastery) has it that the devil has refused to receive more villeins into hell because they smell so vilely!

In the village you soon find many typical peasant characters, and nearly all of them are bad. There is the surly fellow who will not even tell a traveler the way. There is the malcontent villein who mutters enviously whenever he sees a knight riding out hawking; there is the mad fool who reviles God, saints, Church, and nobility; there is the talkative villein who is always arguing bad causes before the provost's court and inciting his neighbors to senseless litigation, there is the honest simpleton who wandered up to Pontdebois and got his pockets picked while gaping at the sculptures on the portal of the cathedral; finally, there are the misers, the petty speculators in grain (who pray for a famine), and all the tribe of poachers. Certainly there are also a great number of hard-working, honest folk who bow respectfully when Messire Conon rides by and who pay their taxes without grumbling. Such give prosperity to the seigneury; but it is the rascals who ever thrust themselves into prominence.

The St. Aliquis villeins seem doltish and dirty enough, but they are nothing to those existing in Flanders. Some monks have recently returned thence after doing business for their order. They tell with horror that in summertime Flemish peasants are seen around their villages, taking their ease, with no more clothes on than when they were born. When the monks remonstrated,

the rough answer was: "How is this your business? You make no laws for us." It is pitiful (say the monks) that any seigneur should tolerate such things on his fief, for the peasants are such sodden creatures they cannot of themselves be expected to know better.

If the knights exploit the peasants, the clergy do so hardly less. It is notoriously hard for the bishop's tithe collector to secure the quota of pigs, hens, eggs, wheat, vegetables, etc., which everybody knows that the villein owes to the Church after or upon the same time he satisfies the collectors for the baron. Indeed, certain impious villeins complain, "The tithe is worse than the imposts and the *corvées*." The monkish preachers have to be constantly threatening these sinners who pay their tithes slowly. The Church tithe is the property of God. "It is the tax you owe to God, a sign of his universal dominion." Those who withhold it not merely imperil their souls, but God will send them "drought and famine," punishing them alike in this world and the next.

Villeins too often wickedly insist on working on Sundays and holy days. The peasants complain there are so many saints' days that it is hard to keep track of them, but if only they would go to Church on Sundays when the priest announces the next holy days they could avoid this sin. Worse still are the peasants who, when they see their fellows going dutifully to mass, hide under the hedges, then slip away to rob the unguarded orchards.

It seems certain, therefore, that God has no such love for villeins as he has for gentle knights and their dames. The knights display their superiority by always reminding their peasants of their condition. With some barons, to flog their villein for most trifling offenses is about as common as for them to eat their dinners. Even Conon

has plenty of use for his riding whip. Unless the blows are very brutal the average peasant takes this as all in the day's work. He merely trades out his own blows upon his wife and children. Indeed, it is commonly said that most villeins are so numb mentally they never can comprehend the simplest orders unless they are driven home with stripes. In time of war the fate of the peasants is, as we have seen, far worse than this. Whatever a feud means to the contending parties, to their villeins it means houses and crops burned, fruit trees girdled, young girls dragged off to a life of infamy, and probably the massacre of many peasants in cold blood. One of the reasons the nobles delight so in war is because it is seldom that they have to endure its real anguish and horror; but in the churches the non-nobles pray, "*Grant us to peace*" quite as fervently as they beseech, "Save us from famine"—and with equal justice.

The monkish preachers who make a business of scolding sometimes denounce high-born oppressors of the villeins. One monk thus cries out, "All that the peasant amasses in one year of stubborn toil, the noble devours in an hour. Not content with his lawful revenues, he despoils them by illicit exactions. As wolves devour carrion while the crows croak overhead, awaiting their share of the feast, so when knights pillage their subjects the provosts [their agents] and others of the hellish crew rejoice at the prospect of devouring the remainder." Or again: "Ye nobles are ravening wolves; therefore shall ye howl in hell," for you "despoil your subjects and live on the blood and sweat of the poor." (Jacques of Vitry.) Nevertheless, the selfsame preachers accuse the peasants of the cardinal sins of avarice and of shunning labor. Only rarely are the villeins comforted by being told that if they work faithfully and bring up

a proper family they are morally on equality "with a cleric who chants all day in a church."

On the St. Aliquis fiefs, and, indeed, on many others, these grosser abuses do not obtain, but nowhere are the villeins exempt from one evil which they must meet with dumb resignation—the seigneurial hunts.[1] Conon and his guests never hesitate at going with horses and hawks or hounds straight across plowed and seeded fields or even over standing grain. This is the lord's absolute right, and protest is impossible. The hunters, too, are entitled, if far from home, to stop at the peasants' huts and demand food and fodder, perhaps for a large party. If payment is made, it is merely out of charity. Greater evils still may come from the depredations of the wild game, if the fields are close to the hunting preserves. Villeins cannot harm any deer nibbling the young sprouts. They can only scare them away—and the cunning creatures soon grow daring. A wild boar can root up a dozen little farm plots before the baron can find leisure to chase him down. Upon some fiefs the peasants can arrange to pay an extra fee to their lord, in return for which he keeps only rabbits near their fields; but the hunt of a single rabbit, if the flying wretch doubles in among the corn, may ruin a family.

On the other hand, the penalties for poaching, for "killing messire's game," are terrible. It is probably safer on St. Aliquis'—as on any other fief—to risk killing a traveler than killing a fawn or even a hare. The law is pitilessly enforced by the foresters. Maître Denis will tell you he has hanged more stout fellows for poaching than for any other two crimes put together.

Do the villeins ever revolt? Sometimes, when they are driven to desperation by extreme misery; when they

[1] See page 67.

* Refers to page 67 in original work.

find a clever leader; when circumstances are peculiarly favorable. Then may come the sudden burning of manor houses and small fortalices; the massacre of their inmates; and other brutish deeds of tardy retaliation. The rebels are likely to boast, as did some insurgent peasants in Normandy in the eleventh century: "We have been weak and insane to bend our necks for so long. For we are strong-handed men, and solider and stouter limbed than the nobles will ever be. For every-one of them there are a hundred of us!"

Such revolts always have a single end. The ignorant peasants submit to no discipline. They cannot use the knight's weapons if they capture them. They cannot organize. If they seize a castle, the liquor in the cellars lays them out helpless through a week of orgy. The seigneurs instantly rally and with their great horses hunt down the rebels as creatures worse than wolves. The vengeance then taken on the insurgents is such that every ear that hears thereof must tingle. Perhaps along a league of roadway a corpse will be swinging from every tree. Such measures effectively discourage rebellion save under most exceptional circumstances. Even with atrocious seigneurs it is usually best to bow to the will of God and merely to pray for deliverance.

Georges' and Alard's mental horizons can be imagined. They have on rare occasions been as far as Pontdebois, although some of their neighbors have passed a life-time without even that privilege. They have only the most limited, one might say only the most animal, hopes and fears. Their ideas of such things as the king's court, Paris, and the various Christian and Infidel lands are a jumble of absurd notions. "Religion" means a few prayers, a few saints' stories, as told in the church, the miracle plays at Christmas, and a fear lest

by failing in proper respect to monks and priests they will be eternally tormented in worse torture chambers than old Baron Garnier's.

The villeins, of course, have their own rustic holidays, full of rough sports—wrestling, throwing weights, archery, and also cockfighting and bull baiting. The best of entertainment is when two blindfolded men, each carrying a cudgel, try to kill a goose or pig let loose in an inclosure. The whole village roars to see them belabor each other. During the wedding festivities, to show their dutiful esteem for Alienor and Olivier, the peasants had arranged a special ceremony in their honor. Four blindfolded men were led about the neighborhood, preceded by two men, one playing an oboe, the other carrying a red banner whereon a pig was painted. After this noisy merrymaking a real pig was produced, and before an august company of most of the castle folk the four champions "attacked the pig." They hit one another so hard, that one was picked up almost dead. The pig became the property of the villein who had managed to pound the life out of the creature just as in mercy Alienor was about to beg that the contest end.

Despite grievances and grumblings, the average peasants are loyal, somewhat after the manner of dumb dogs, to their seigneurs. Conon and Adela command the real affection of their villeins because of acts of charity, but even Baron Garnier had been treated with an astonishing faithfulness. Many a knight has owed his life or honor to humble dependents whom he has not treated so well as his horses or hounds. It is the toiling thousands in the little thatched huts that make possible the wedding feasts, the adubbements, the tourneys, and the spectacular battles. Some day the exploitation will cease—but not in the thirteenth century.

Self Portrait Between the Borderline of Mexico and the United States, 1932

Frida Kahlo

Erich Lessing/Art Resource, NY

The Secret Life of Plants

From *New Scientist*, March 26, 2011

By Ferris Jabr

EVERY autumn swarms of dusty grey moths engulf the mountainside birch forests of northern Scandinavia, laying their eggs on twigs so that, come springtime, the newly hatched larvae can feast upon budding leaves. It looks like a battle that the trees, with no natural defences, are doomed to lose, but some have a secret weapon. They form an alliance with a neighbouring plant, a kind of rhododendron, borrowing wafts of its volatile insecticides as a sort of olfactory camouflage. "This kind of interaction has never been observed in the field before," says Jarmo Holopainen at the University of Eastern Finland in Kuopio, who made the discovery (New Phytologist, vol 186, p 722). His study is one of the latest to demonstrate the unexpectedly complex relationships between plants.

We've known for some time that plants respond to one another, but only now are we realising how subtle and sophisticated their interactions can be. Plants continually eavesdrop on each other's chemical chatter — sometimes sympathetically, sometimes selfishly. Some plants, like the Scandinavian rhododendron, assist their neighbours by sharing resources. Others recognise close relatives and favour them over strangers. And at least one parasitic plant homes in on its host's telltale chemical scent (see "Scent of a victim", page [59]).

"Plants don't go out to parties or to watch the movies, but they do have a social network," says Suzanne Simard, a forest ecologist at the University of British Columbia in Vancouver, Canada. "They support each other and they fight with each other. The more we look at plant signalling and communication, the more we learn. It's really incredible."

Since the development of time-lapse photography, it has been possible to document the dances and scuffles in densely populated plant communities: saplings on the forest floor compete for space to stretch their roots and shoots; fallen trees provide young ones with nourishment; vines lash around desperately searching for a trunk they can climb to reach the light; and wildflowers race each other to open their blooms in springtime and compete for the attention of pollinators. To truly understand the secret social life of plants, however, you must look and listen more closely.

A good place to start is underground in the rhizosphere — the ecosystem in and around plant roots. Beneath the forest floor, each spoonful of dirt contains millions of tiny organisms. These bacteria and fungi form a symbiotic relationship with plant roots, helping their hosts absorb water and vital elements like nitrogen in return for a steady supply of nutrients.

Now closer inspection has revealed that fungal threads physically unite the roots of dozens of trees, often of different species, into a single mycorrhizal network. These webs sprawled beneath our feet are genuine social networks. By tracing the movement of radioactive carbon isotopes through them, Simard has found that water and nutrients tend to flow from trees that make excess food to ones that don't have enough. One study published in 2009, for example, showed that older Douglas firs transferred molecules containing carbon and nitrogen to saplings of the same species via their mycorrhizal networks. The saplings with the greatest access to these networks were the healthiest (Ecology, vol 90, p 2808).

As well as sharing food, mycorrhizal associations may also allow plants to share information. Biologists have known for a while that plants can respond to airborne defence signals from others that are under attack. When a caterpillar starts to munch on a tomato plant, for example, the leaves produce noxious compounds that both repel the attacker and stimulate neighbouring plants to ready their own defences.

Yuan Yuan Song of South China Agricultural University in Guangzhou and colleagues investigated whether similar chemical alarm calls travel underground. They exposed one group of tomato plants to a pathogenic fungus and monitored the response in a second group connected to the first via a mycorrhizal network. The diseased plants were sealed inside airtight plastic bags to prevent any communication above ground. Nevertheless, the healthy partners began producing defence chemicals, suggesting that the plants detect each other's alarm calls via their mycorrhizal networks (PLoS One, vol 5, p e13324).

Another recent discovery, one which may be connected with Song's finding, is that some plants recognise members of their own species and apparently work together for the common good. Amanda Broz of Colorado State University in Fort Collins paired spotted knotweed plants inside a greenhouse either with other knotweeds or with blue bunchgrass. She then simulated an attack by spraying them with methyl jasmonate, a chemical many plants release when wounded. The knotweed's response depended on its neighbours. When growing near members of its own species, it produced leaf toxins to boost its defences. But it chose to focus on leaf and stem growth when its neighbours were bunchgrass (BMC Plant Biology, vol 10, p 115).

Such discrimination makes sense because, in the knotweed's native environment, dense clusters of a single plant tend to attract large numbers of insects to an all-you-can-eat buffet. So cooperating with other knotweed plants helps stave off an attack. However, when knotweed is surrounded by bunchgrass, a better strategy is to leave defence to its neighbours and concentrate on aggressive growth — which might also help explain why knotweed is such an effective invasive species.

Broz's research was published just last year, and it remains unclear how knotweed, or any other plant, could be recognising members of its own species. However, one instance of a plant with family values has been more thoroughly explored.

In a landmark paper published in 2007, Susan Dudley from McMaster University in Ontario, Canada, reported the first case of plants recognising and favouring their kin (Biology Letters, vol 3, p 435). Her studies of American sea rocket, a scraggly weed that grows along the shorelines of the Great Lakes, showed that a plant potted with an unrelated individual did not hesitate to spread its roots and soak up as much water and nutrients as it could. However, when Dudley planted sea-rocket siblings in the same pot, they exercised restraint, taming their eager roots to better share resources. Siblings and strangers that grew near each other but did not share pots showed no differences in root growth, indicating that sea rocket relies on underground chemical signalling to identify its kin. They don't seem to be using mycorrhizal networks, though.

In subsequent research with Meredith Biedrzycki from the University of Delaware in Newark, Dudley discovered that the signals take the form of "exudates" — a cocktail of soluble compounds including phenols, flavonoids, sugars, organic acids, amino acids and proteins, secreted by roots into the rhizosphere. How these indicate relatedness is still a mystery, though (Communicative & Integrative Biology, vol 3, p 28).

In the past few years, kin recognition has been discovered in other plants, including the botanical "lab rat" Arabidopsis and a kind of Impatiens called pale jewelweed. This has led some botanists to argue that plants, like animals, are capable of kin selection — behaviours and strategies that help relatives reproduce. Kin selection has an evolutionary rationale because it increases the chances that the genes an individual shares with its relatives will be passed to the next generation, even if altruistic behaviour comes at a cost to one's own well-being. "There's no reason to think plants wouldn't get the same benefits from kin selection that animals do," says Dudley.

Recognising siblings and restraining one's growth in response certainly looks like kin selection, but that still leaves the question of whether such interactions also improve the survival prospects of related plants. Research by Richard Karban at the University of California, Davis, goes some way to answering that.

Karban studied a desert shrub called sagebrush, which emits a pungent bouquet of chemicals to deter insects. When he clipped an individual plant's leaves to simulate an attack, he found that it mounted a more robust defence if it was growing next to its own clone than if its neighbour was unrelated. What's more, for a period of five months afterwards, the neighbouring clones suffered far less damage from caterpillars, grasshoppers and deer than did unrelated neighbours (Ecology Letters, vol 12, p 502).

Studying kin selection and other plant interactions doesn't just improve our knowledge of basic plant biology and ecology. "There are a lot of people really interested in it, because it's not just an intellectually neat puzzle," says James Cahill at the University of Alberta in Edmonton, Canada. "There are many potential applications, especially for agriculture."

One obvious area is in companion planting — the strategic positioning of different crops or garden plants so they benefit one another by deterring pests, attracting pollinators and improving nutrient uptake. This ancient technique, which traditionally relies on trial and error and close observation, can be highly effective. For example, beans fix nitrogen that boosts growth in some other plants, and when Europeans arrived in America in the 15th century, they discovered that Native Americans used corn as a natural trellis for

bean plants. Our modern understanding of plant interactions suggests we could find new, more subtle and potentially beneficial relationships, which could help us overcome a major drawback of modern monoculture farming. Since a single pathogen can wipe out an entire crop of genetically similar — and therefore equally vulnerable — plants, farmers make heavy use of pesticides. But instead of picturing an endless stretch of corn or wheat, imagine something more like a jungle of diverse species that work together above and below ground.

Breeding cooperation

Cahill has another idea. "Fertilisers aren't always spread evenly," he says. "Maybe we could breed plants to cooperate more effectively with their neighbours to share fertiliser." Meanwhile, Simard thinks the recent discoveries about mycorrhizal networks have implications for both agriculture and forestry. Hardy old trees should not be removed from forests so hastily, she says, because saplings depend on the mycorrhizal associations maintained by these grandparent trees. She also suggests that farmers should go easy on fertilisation and irrigation because these practices can damage or destroy delicate mycorrhizal networks.

Clearly, we do not yet have all the information we need to start deploying such tactics. "What we want to do next is develop more advanced techniques to watch roots grow, to really see what they do with each other and how they interact in space," Dudley says. She also wants to figure out what genetic factors control plant interactions and look at how they change survival and reproduction. "The molecular aspects are perhaps the most challenging," she adds, "but we have made some big leaps."

The idea that plants have complex relationships may require a shift in mindset. "For the longest time people thought that plants were just there," says Biedrzycki. "But they can defend themselves more than we thought and they can create the environment around them. It turns out they have some control over what is going on through this chemical communication." Passive and silent though plants may seem, their abilities to interact and communicate should not come as such a shock. "Some incredibly simple organisms — even one-celled organisms — can recognise and respond to each other," says Broz. "Why is it so bizarre to think that plants could have this same kind of ability?"

Scent of a Victim

Many of the social interactions of plants seem to involve a form of sharing or cooperation mediated by chemical signals. However, some chemical communication is far from benevolent, as research on a parasitic vine called dodder has found.

Dodder contains almost no chlorophyll — the green molecule that allows plants to produce sugars from sunlight, water and carbon dioxide. Instead, after sprouting as a leafless tendril, it searches for a victim into which it sinks its nozzles and sucks out the sugary sap. "We knew how it creates nozzles and gets resources from the host, but nobody knew how dodder found its host," says Consuelo De Moraes at Pennsylvania State University at University Park.

Some plants identify neighbours by sensing sunlight refracted off their leaves, but time-lapse video suggests that dodder uses a different technique. The footage shows that when the tendril searches for a host it twirls about like a snake tasting the air. Could it be searching for a chemical, wondered De Moraes?

To test this idea, she and her colleagues hid a variety of plants around a corner from a dodder tendril. If the vine were really using chemical sensing to find its victims, it should be able to home in on its hosts using the volatile chemicals they naturally produce.

That is exactly what they found. In fact, dodder even showed dietary preferences based on the different airborne chemicals, almost always choosing succulent tomatoes over twiggy wheat, and favouring healthy hosts by avoiding the chemicals given off by damaged plants (Science, vol 313, p 1964). "Not only does dodder use chemical cues to find a host," says De Moraes, "it can distinguish between hosts of different qualities. It knows which plants are healthier and goes after them."

(The original article is no longer available in print, but the pdf version contains all of the original text.)

A Letter to My Nephew

By James Baldwin

Originally published in *The Progressive*, 1962
(http://www.progressive.org/news/2014/08/5047/letter-my-nephew)

James Baldwin

Posted December 4, 2014

Editor's Note: In light of the protests around the country demanding a stop to police brutality and changes to a racist justice system, we are reprinting one of James Baldwin's most famous articles published in The Progressive *magazine, from December 1962. (Baldwin later adapted it in his essay collection,* The Fire Next Time.*) Senior editor Matt Rothschild remarked today, "This might be the greatest piece we've ever published."*

Dear James:

I have begun this letter five times and torn it up five times. I keep seeing your face, which is also the face of your father and my brother. I have known both of you all your lives and have carried your daddy in my arms and on my shoulders, kissed him and spanked him and watched him learn to walk. I don't know if you have known anybody from that far back, if you have loved anybody that long, first as an infant, then as a child, then as a man. You gain a strange perspective on time and human pain and effort.

Other people cannot see what I see whenever I look into your father's face, for behind your father's face as it is today are all those other faces which were his. Let him laugh and I see a cellar your father does not remember and a house he does not remember and I hear in his present laughter his laughter as a child. Let him curse and I remember his falling down the cellar steps and howling and I remember with pain his tears which my hand or your grandmother's hand so easily wiped away, but no one's hand can wipe away those tears he sheds invisibly today which one hears in his laughter and in his speech and in his songs.

I know what the world has done to my brother and how narrowly he has survived it and I know, which is much worse, and this is the crime of which I accuse my country and my countrymen and for which neither I nor time nor history will ever forgive them, that they have destroyed and are destroying hundreds of thousands of lives and do not know it and do not want to know it. One can be--indeed, one must strive to become--tough and philosophical concerning destruction and death, for this is what most of mankind has been best at since we have heard of war; remember, I said most of mankind, but it is not permissible that the authors of devastation should also be innocent. It is the innocence which constitutes the crime.

Now, my dear namesake, these innocent and well meaning people, your countrymen, have caused you to be born under conditions not far removed from those described for us by Charles Dickens in the London of more than a hundred years ago. I hear the chorus of the innocents screaming, "No, this is not true. How bitter you are," but I am writing this letter to you to try to tell you something about how to handle them, for most of them do not yet really know that you exist. I know the conditions under which you were born for I was there. Your countrymen were not there and haven't made it yet. Your grandmother was also there and no one has ever accused her of being bitter. I suggest that the innocent check with her. She isn't hard to find. Your countrymen don't know that she exists either, though she has been working for them all their lives.

Well, you were born; here you came, something like fifteen years ago, and though your father and mother and grandmother, looking about the streets through which they were carrying you, staring at the walls into which they brought you, had every reason to be heavy-hearted, yet they were not, for here you were, big James, named for me. You were a big baby. I was not. Here you were to be loved. To be loved, baby, hard at once and forever to strengthen you against the loveless world. Remember that. I know how black it looks today for you. It looked black that day too. Yes, we were trembling. We have not stopped trembling yet, but if we had not loved each other, none of us would have survived, and now you must survive because we love you and for the sake of your children and your children's children.

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This innocent country set you down in a ghetto in which, in fact, it intended that you should perish. Let me spell out precisely what I mean by that for the heart of the matter is here and the crux of my dispute with my country. You were born where you were born and faced the future that you faced because you were black and for no other reason. The limits to your ambition were thus expected to be settled. You were born into a society which spelled out with brutal clarity and in as many ways as possible that you were a worthless human being. You were not expected to aspire to excellence. You

were expected to make peace with mediocrity. Wherever you have turned, James, in your short time on this earth, you have been told where you could go and what you could do and how you could do it, where you could live and whom you could marry.

I know your countrymen do not agree with me here and I hear them saying, "You exaggerate." They do not know Harlem and I do. So do you. Take no one's word for anything, including mine, but trust your experience. Know whence you came. If you know whence you came, there is really no limit to where you can go. The details and symbols of your life have been deliberately constructed to make you believe what white people say about you. Please try to remember that what they believe, as well as what they do and cause you to endure, does not testify to your inferiority, but to their inhumanity and fear.

Please try to be clear, dear James, through the storm which rages about your youthful head today, about the reality which lies behind the words "acceptance" and "integration." There is no reason for you to try to become like white men and there is no basis whatever for their impertinent assumption that they must accept you. The really terrible thing, old buddy, is that you must accept them, and I mean that very seriously. You must accept them and accept them with love, for these innocent people have no other hope. They are in effect still trapped in a history which they do not understand and until they understand it, they cannot be released from it. They have had to believe for many years, and for innumerable reasons, that black men are inferior to white men.

Many of them indeed know better, but as you will discover, people find it very difficult to act on what they know. To act is to be committed and to be committed is to be in danger. In this case the danger in the minds and hearts of most white Americans is the loss of their identity. Try to imagine how you would feel if you woke up one morning to find the sun shivering and all the stars aflame. You would be frightened because it is out of the order of nature. Any upheaval in the universe is terrifying because it so profoundly attacks one's sense of one's own reality. Well, the black man has functioned in the white man's world as a fixed star, as an immovable pillar, and as he moves out of his place, heaven and earth are shaken to their foundations.

You don't be afraid. I said it was intended that you should perish, in the ghetto, perish by never being allowed to go beyond and behind the white man's definition, by never being allowed to spell your proper name. You have, and many of us have, defeated this intention and by a terrible law, a terrible paradox, those innocents who believed that your imprisonment made them safe are losing their grasp of reality. But these men are your brothers, your lost younger brothers, and if the word "integration" means anything, this is what it means, that we with love shall force our brothers to see themselves as they are, to cease fleeing from reality and begin to change it, for this is your home, my friend. Do not be driven from it. Great men have done great things here and will again and we can make America what America must become.

It will be hard, James, but you come from sturdy peasant stock, men who picked cotton, dammed rivers, built railroads, and in the teeth of the most terrifying odds, achieved an unassailable and monumental dignity. You come from a long line of great poets, some of the greatest poets since Homer. One of them said, "The very time I thought I was lost, my dungeon shook and my chains fell off."

You know and I know that the country is celebrating one hundred years of freedom one hundred years too early. We cannot be free until they are free. God bless you, James, and Godspeed.

Your uncle,

JAMES

The Struggle to Govern the Commons

Thomas Dietz,[1] Elinor Ostrom,[2] Paul C. Stern[3]*

Human institutions—ways of organizing activities—affect the resilience of the environment. Locally evolved institutional arrangements governed by stable communities and buffered from outside forces have sustained resources successfully for centuries, although they often fail when rapid change occurs. Ideal conditions for governance are increasingly rare. Critical problems, such as transboundary pollution, tropical deforestation, and climate change, are at larger scales and involve nonlocal influences. Promising strategies for addressing these problems include dialogue among interested parties, officials, and scientists; complex, redundant, and layered institutions; a mix of institutional types; and designs that facilitate experimentation, learning, and change.

In 1968, Hardin (*1*) drew attention to two human factors that drive environmental change. The first factor is the increasing demand for natural resources and environmental services, stemming from growth in human population and per capita resource consumption. The second factor is the way in which humans organize themselves to extract resources from the environment and eject effluents into it—what social scientists refer to as institutional arrangements. Hardin's work has been highly influential (*2*) but has long been aptly criticized as oversimplified (*3*–*6*).

Hardin's oversimplification was twofold: He claimed that only two state-established institutional arrangements—centralized government and private property—could sustain commons over the long run, and he presumed that resource users were trapped in a commons dilemma, unable to create solutions (*7*–*9*). He missed the point that many social groups, including the herders on the commons that provided the metaphor for his analysis, have struggled successfully against threats of resource degradation by developing and maintaining self-governing institutions (*3*, *10*–*13*). Although these institutions have not always succeeded, neither have Hardin's preferred alternatives of private or state ownership.

In the absence of effective governance institutions at the appropriate scale, natural resources and the environment are in peril from increasing human population, consumption, and deployment of advanced technologies for resource use, all of which have reached unprecedented levels. For example, it is estimated that "the global ocean has lost more than 90% of large predatory fishes" with an 80% decline typically occurring "within 15 years of industrialized exploitation" (*14*). The threat of massive ecosystem degradation results from an interplay among ocean ecologies, fishing technologies, and inadequate governance.

Inshore fisheries are similarly degraded where they are open access or governed by top-down national regimes, leaving local and regional officials and users with insufficient autonomy and understanding to design effective institutions (*15*, *16*). For example, the degraded inshore ground fishery in Maine is governed by top-down rules based on models that were not credible among users. As a result, compliance has been relatively low and there has been strong resistance to strengthening existing restrictions. This is in marked contrast to the Maine lobster fishery, which has been governed by formal and informal user institutions that have strongly influenced state-level rules that restrict fishing. The result has been credible rules with very high levels of compliance (*17*–*19*). A comparison of the landings of ground fish and lobster since 1980 is shown in Fig. 1. The rules and high levels of compliance related to lobster appear to have prevented the destruction of this fishery but probably are not responsible for the sharp rise in abundance and landings after 1986.

Resources at larger scales have also been successfully protected through appropriate international governance regimes such as the Montreal Protocol on stratospheric ozone and the International Commission for the Protection of the Rhine Agreements (*20*–*24*). Figure 2 compares the trajectory of atmospheric concentrations of ozone-depleting substances (ODS) with that of carbon dioxide since 1982. The Montreal Protocol, the centerpiece of the international agreements on ozone depletion, was signed in 1987. Before then, ODS concentrations were increasing faster than those of CO_2; the increases slowed by the early 1990s and the concentration appears to have stabilized in recent years. The international treaty regime to reduce the anthropogenic impact on stratospheric ozone is widely considered an example of a successful effort to protect the global commons. In contrast, international efforts to reduce greenhouse gas concentrations have not yet had an impact.

Knowledge from an emerging science of human-environment interactions, sometimes called human ecology or the "second environmental science" (*25*, *26*), is clarifying the characteristics of institutions that facilitate or undermine sustainable use of environmental resources under particular conditions (*6*, *27*). The knowledge base is strongest with small-scale ecologies and institutions, where long time series exist on many successes and failures. It is now developing for larger-scale systems. In this review, we address what science has learned about governing the commons and why it is always a struggle (*28*).

Why a Struggle?

Devising ways to sustain the earth's ability to support diverse life, including a reasonable quality of life for humans, involves making tough decisions under uncertainty, complexity, and substantial biophysical constraints as well as conflicting human values and interests. Devising effective governance systems is akin to a coevolutionary race. A set of rules crafted to fit one set of socioecological conditions can erode as social, economic, and

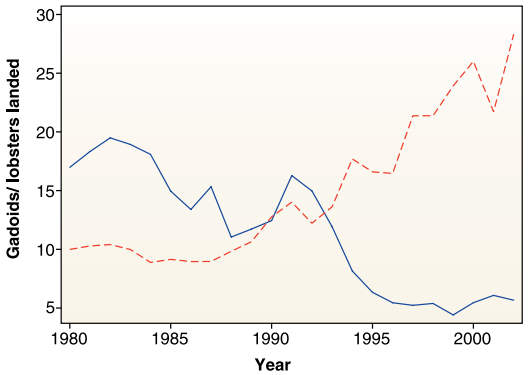

Fig. 1. Comparison of landings of ground fish (gadoids, solid blue line) and lobster (dashed red line) in Maine from 1980 to 2002. Measured in millions of kilograms of ground fish and lobsters landed per year. International fishing in these waters ended with the extended jurisdiction that occurred in 1977 (*155*).

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technological developments increase the potential for human damage to ecosystems and even to the biosphere itself. Furthermore, humans devise ways of evading governance rules. Thus, successful commons governance requires that rules evolve.

Effective commons governance is easier to achieve when (i) the resources and use of the resources by humans can be monitored, and the information can be verified and understood at relatively low cost (e.g., trees are easier to monitor than fish, and lakes are easier to monitor than rivers) (*29*); (ii) rates of change in resources, resource-user populations, technology, and economic and social conditions are moderate (*30*–*32*); (iii) communities maintain frequent face-to-face communication and dense social networks—sometimes called social capital—that increase the potential for trust, allow people to express and see emotional reactions to distrust, and lower the cost of monitoring behavior and inducing rule compliance (*33*–*36*); (iv) outsiders can be excluded at relatively low cost from using the resource (new entrants add to the harvesting pressure and typically lack understanding of the rules); and (v) users support effective monitoring and rule enforcement (*37*–*39*). Few settings in the world are characterized by all of these conditions. The challenge is to devise institutional arrangements that help to establish such conditions or, as we discuss below, meet the main challenges of governance in the absence of ideal conditions (*6*, *40*, *41*).

Selective Pressures

The characteristics of resources and social interaction in many subsistence societies present favorable conditions for the evolution of effective self-governing resource institutions (*13*). Hundreds of documented examples exist of long-term sustainable resource use in such communities as well as in more economically advanced communities with effective, local, self-governing rights, but there are also many failures (*6*, *11*, *42*–*44*). As human communities have expanded, the selective pressures on environmental governance institutions increasingly have come from broad influences. Commerce has become regional, national, and global, and institutions at all of these levels have been created to enable and regulate trade, transportation, competition, and conflict (*45*, *46*). These institutions shape environmental impact, even if they are not designed with that intent. They also provide mechanisms for environmental governance (e.g., national laws) and part of the social context for local efforts at environmental governance. Larger scale governance may authorize local control, help it, hinder it, or override it (*47*–*52*). Now, every local place is strongly influenced by global dynamics (*48*, *53*–*57*).

The most important contemporary environmental challenges involve systems that are intrinsically global (e.g., climate change) or are tightly linked to global pressures (e.g., timber production for the world market) and that require governance at levels from the global all the way down to the local (*48*, *58*, *59*). These situations often feature environmental outcomes spatially displaced from their causes and hard-to-monitor, larger scale economic incentives that may not be closely aligned with the condition of local ecosystems. Also, differentials in power within user groups or across scales allow some to ignore rules of commons use or to reshape the rules in their own interest, such as when global markets reshape demand for local resources (e.g., forests) in ways that swamp the ability of locally evolved institutions to regulate their use (*60*–*62*).

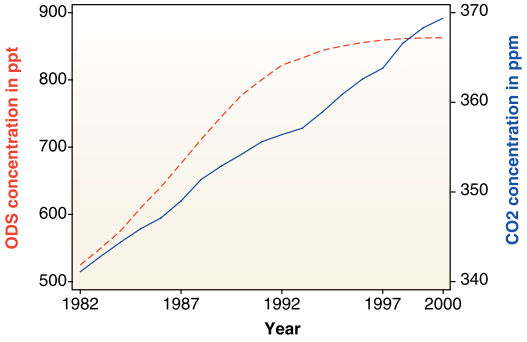

Fig. 2. Atmospheric concentration of CO_2 (solid blue line, right scale) and three principal ODS (dashed red line, left scale). The ODS are chlorofluorocarbons (CFCs) 11, 12, and 113 and were weighted based on their ozone-depleting potential (*156*). Data are from (*157*). ppt, parts per trillion; ppm, parts per million.

The store of governance tools and ways to modify and combine them is far greater than often is recognized (*6*, *63*–*65*). Global and national environmental policy frequently ignores community-based governance and traditional tools, such as informal communication and sanctioning, but these tools can have significant impact (*63*, *66*). Further, no single broad type of ownership—government, private, or community—uniformly succeeds or fails to halt major resource deterioration, as shown for forests in multiple countries (supporting online material text, figs. S1 to S5, and table S1).

Requirements of Adaptive Governance in Complex Systems

Providing information. Environmental governance depends on good, trustworthy information about stocks, flows, and processes within the resource systems being governed, as well as about the human-environment interactions affecting those systems. This information must be congruent in scale with environmental events and decisions (*48*, *67*). Highly aggregated information may ignore or average out local information that is important in identifying future problems and developing solutions.

For example, in 2002, a moratorium on all fishing for northern cod was declared by the Canadian government after a collapse of this valuable fishery. An earlier near-collapse had led Canada to declare a 200-mile zone of exclusive fisheries jurisdiction in 1977 (*68*, *69*). Considerable optimism existed during the 1980s that the stocks, as estimated by fishery scientists, were rebuilding. Consequently, generous total catch limits were established for northern cod and other ground fish, the number of licensed fishers was allowed to increase considerably, and substantial government subsidies were allocated for new vessels (*70*). What went wrong? There were a variety of information-related problems including: (i) treating all northern cod as a single stock instead of recognizing distinct populations with different characteristics, (ii) ignoring the variability of year classes of northern cod, (iii) focusing on offshore-fishery landing data rather than inshore data to "tune" the stock assessment, and (iv) ignoring inshore fishers who were catching ever-smaller fish and doubted the validity of stock assessments (*70*–*72*). This experience illustrates the need to collect and model both local and aggregated information about resource conditions and to use it in making policy at the appropriate scales.

Information also must be congruent with decision makers' needs in terms of timing, content, and form of presentation (*73*–*75*). Informational systems that simultaneously meet high scientific standards and serve ongoing needs of decision makers and users are particularly useful. Information must not overload the capacity of users to assimilate it. Systems that adequately characterize environmental conditions or human activities with summary indicators such as prices for products or emission permits, or certification of good environmental performance can provide valuable signals as long as they are attentive to local as well as aggregate conditions (*76*–*78*).

Effective governance requires not only factual information about the state of the environment and human actions but also information about uncertainty and values. Scientific understanding of coupled human-biophysical systems will always be uncertain because of inherent unpredictability in the systems and because the science is never complete (*79*). Decision makers need information that characterizes the types and magnitudes of this uncertainty, as well as the nature and extent of scientific ignorance and disagreement (*80*). Also, because every environmental decision requires tradeoffs,

knowledge is needed about individual and social values and about the effects of decisions on various valued outcomes. For many environmental systems, local and easily captured values (e.g., the market value of lumber) have to be balanced against global, diffuse, and hard-to-capture values (e.g., biodiversity and the capability of humans and ecosystems to adapt to unexpected events). Finding ways to measure and monitor the outcomes for such varied values in the face of globalization is a major informational challenge for governance.

Dealing with conflict. Sharp differences in power and in values across interested parties make conflict inherent in environmental choices. Indeed, conflict resolution may be as important a motivation for designing resource institutions as is concern with the resources themselves (*81*). People bring varying perspectives, interests, and fundamental philosophies to problems of environmental governance (*74*, *82*–*84*), and their conflicts, if they do not escalate to the point of dysfunction, can spark learning and change (*85*, *86*).

For example, a broadly participatory process was used to examine alternative strategies for regulating the Mississippi River and its tributaries (*87*). A dynamic model was constructed with continuous input by the Corps of Engineers, the Fish and Wildlife Service, local landowners, environmental groups, and academics from multiple disciplines. After extensive model development and testing against past historical data, most stakeholders had high confidence in the explanatory power of the model. Consensus was reached over alternative management options, and the resulting policies generated far less conflict than had existed at the outset (*88*).

Delegating authority to environmental ministries does not always resolve conflicts satisfactorily, so governments are experimenting with various governance approaches to complement managerial ones. They range from ballots and polls, where engagement is passive and participants interact minimally, to adversarial processes that allow parties to redress grievances through formal legal procedures, to various experiments with intense interaction and deliberation aimed at negotiating decisions or allowing parties in potential conflict to provide structured input to them through participatory processes (*89*–*93*).

Inducing rule compliance. Effective governance requires that the rules of resource use are generally followed, with reasonable standards for tolerating modest violations. It is generally most effective to impose modest sanctions on first offenders, and gradually increase the severity of sanctions for those who do not learn from their first or second encounter (*39*, *94*). Community-based institutions often use informal strategies for achieving compliance that rely on participants' commitment to rules and subtle social sanctions. Whether enforcement mechanisms are formal or informal, those who impose them must be seen as effective and legitimate by resource users or resistance and evasion will overwhelm the commons governance strategy.

Much environmental regulation in complex societies has been "command and control." Governments require or prohibit specific actions or technologies, with fines or jail terms possible for punishing rule breakers. If sufficient resources are made available for monitoring and enforcement, such approaches are effective. But when governments lack the will or resources to protect "protected areas" (*95*–*97*), when major environmental damage comes from hard-to-detect "nonpoint sources," and when the need is to encourage innovation in behaviors or technologies rather than to require or prohibit familiar ones, command and control approaches are less effective. They are also economically inefficient in many circumstances (*98*–*100*).

Financial instruments can provide incentives to achieve compliance with environmental rules. In recent years, market-based systems of tradable environmental allowances (TEAs) that define a limit to environmental withdrawals or emissions and permit free trade of allocated allowances under those limits have become popular (*76*, *101*, *102*). TEAs are one of the bases for the Kyoto agreement on climate change.

Economic theory and experience in some settings suggest that these mechanisms have substantial advantages over command and control (*103*–*106*). TEAs have exhibited good environmental performance and economic efficiency in the U.S. Sulfur Dioxide Allowance Market intended to reduce the prevalence of acid rain (*107*, *108*) and the Lead Phasedown Program aimed at reducing the level of lead emissions (*109*). Crucial variables that differentiate these highly successful programs from less successful ones, such as chlorofluorocarbon production quota trading and the early EPA emission trading programs, include: (i) the level of predictability of the stocks and flows, (ii) the number of users or producers who are regulated, (iii) the heterogeneity of the regulated users, and (iv) clearly defined and fully exchangeable permits (*110*).

TEAs, like all institutional arrangements, have notable limitations. TEA regimes tend to leave unprotected those resources not specifically covered by trading rules (e.g., bycatch of noncovered fish species) (*111*) and to suffer when monitoring is difficult (e.g., under the Kyoto protocol, the question of whether geologically sequestered carbon will remain sequestered). Problems can also occur with the initial allocation of allowances, especially when historic users, who may be called on to change their behavior most, have disproportionate power over allocation decisions (*76*, *101*). TEAs and community-based systems appear to have opposite strengths and weaknesses (*101*), suggesting that institutions that combine aspects of both systems may work better than either approach alone. For example, the fisheries tradable permit system in New Zealand has added comanagement institutions to complement the market institutions (*102*, *112*).

Voluntary approaches and those based on information disclosure have only begun to receive careful scientific attention as supplements to other tools (*63*, *77*, *113*–*115*). Success appears to depend on the existence of incentives that benefit leaders in volunteering over laggards and on the simultaneous use of other strategies, particularly ones that create incentives for compliance (*77*, *116*–*118*). Difficulties of sanctioning pose major problems for international agreements (*119*–*121*).

Providing infrastructure. The importance of physical and technological infrastructure is often ignored. Infrastructure, including technology, determines the degree to which a commons can be exploited (e.g., water works and fishing technology), the extent to which waste can be reduced in resource use, and the degree to which resource conditions and the behavior of humans users can be effectively monitored. Indeed, the ability to choose institutional arrangements depends in part on infrastructure. In the absence of barbed-wire fences, for example, enforcing private property rights on grazing lands is expensive, but with barbed wire fences, it is relatively cheap (*122*). Effective communication and transportation technologies are also of immense importance. Fishers who observe an unauthorized boat or harvesting technology can use a radio or cellular phone to alert others to illegal actions (*123*). Infrastructure also affects the links between local commons and regional and global systems. Good roads can provide food in bad times but can also open local resources to global markets, creating demand for resources that cannot be used locally (*124*). Institutional infrastructure is also important, including research, social capital, and multilevel rules, to coordinate between local and larger levels of governance (*48*, *125*, *126*).

Be prepared for change. Institutions must be designed to allow for adaptation because some current understanding is likely to be wrong, the required scale of organization can shift, and biophysical and social systems change. Fixed rules are likely to fail because they place too much confidence in the current state of knowledge, whereas systems that guard against the low probability, high consequence possibilities and allow for change may be suboptimal in the short run but prove wiser in the long run. This is a principal lesson of adaptive management research (*31*, *127*).

Strategies for Meeting the Requirements of Adaptive Governance

The general principles for robust governance institutions for localized resources (Fig. 3) are well established as a result of multiple empirical studies (*13*, *39*, *128*–*137*). Many of these also appear to be applicable to regional and global resources (*138*), although they are less well tested at those scales. Three of them seem to be particularly relevant for problems at larger scales.

Analytic deliberation. Well-structured dialogue involving scientists, resource users, and interested publics, and informed by analysis of key information about environmental and human-environment systems, appears critical. Such analytic deliberation (*74*, *139*, *140*) provides improved information and the trust in it that is essential for information to be used effectively, builds social capital, and can allow for change and deal with inevitable conflicts well enough to produce consensus on governance rules. The negotiated 1994 U.S. regulation on disinfectant by-products in water that reached an interim consensus, including a decision to collect new information and reconsider the rule on that basis (*74*), is an excellent example of this approach.

Nesting. Institutional arrangements must be complex, redundant, and nested in many layers (*32*, *141*, *142*). Simple strategies for governing the world's resources that rely exclusively on imposed markets or one-level, centralized command and control and that eliminate apparent redundancies in the name of efficiency have been tried and have failed. Catastrophic failures often have resulted when central governments have exerted sole authority over resources. Examples include the massive environmental degradation and impoverishment of local people in Indonesian Borneo (*95*), the increased rate of loss and fragmentation of high-quality habitat that occurred after creating the Wolong Nature Reserve in China (*143*), and the closing of the northern cod fishery along the eastern coast of Canada partly attributable to the excessive quotas granted by the Canadian government (*70*).

Institutional variety. Governance should employ mixtures of institutional types (e.g., hierarchies, markets, and community self-governance) that employ a variety of decision rules to change incentives, increase information, monitor use, and induce compliance (*6*, *63*, *117*). Innovative rule evaders can have more trouble with a multiplicity of rules than with a single type of rule.

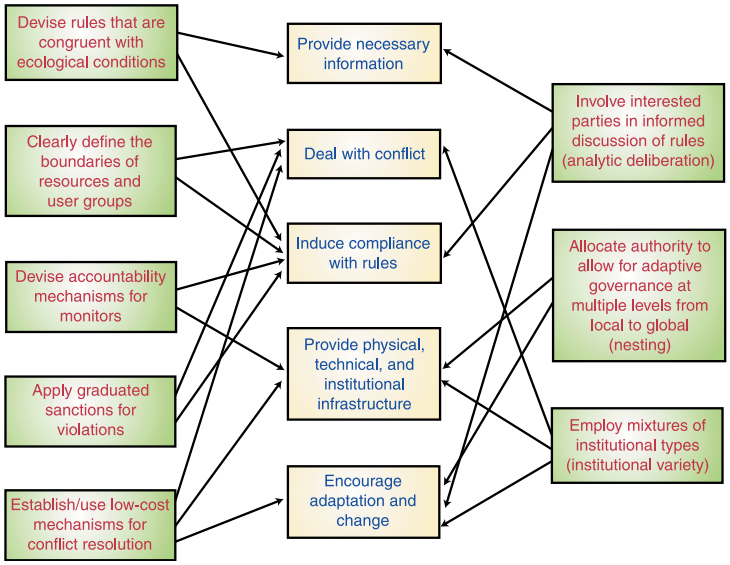

Fig. 3. General principles for robust governance of environmental resources (green, left and right columns) and the governance requirements they help meet (yellow, center column) (*13*, *158*). Each principle is relevant for meeting several requirements. Arrows indicate some of the most likely connections between principles and requirements. Principles in the right column may be particularly relevant for global and regional problems.

Conclusion

Is it possible to govern such critical commons as the oceans and the climate? We remain guardedly optimistic. Thirty-five years ago it seemed that the "tragedy of the commons" was inevitable everywhere not owned privately or by a government. Systematic multidisciplinary research has, however, shown that a wide diversity of adaptive governance systems have been effective stewards of many resources. Sustained research coupled to an explicit view of national and international policies as experiments can yield the scientific knowledge necessary to design appropriate adaptive institutions.

Sound science is necessary for commons governance, but not sufficient. Too many strategies for governance of local commons are designed in capital cities or by donor agencies in ignorance of the state of the science and local conditions. The results are often tragic, but at least these tragedies are local. As the human footprint on the Earth enlarges (*144*), humanity is challenged to develop and deploy understanding of large-scale commons governance quickly enough to avoid the large-scale tragedies that will otherwise ensue.

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Supporting Online Material
www.sciencemag.org/cgi/content/full/302/5652/1907/DC1
SOM Text
Fig. S1 to S5
Table S1

Web Resources
www.sciencemag.org/cgi/content/full/302/5652/1907/DC2

AP Seminar End-of-Course Exam

Weight: 45% of the AP Seminar score

AP SEMINAR

PART A

SUGGESTED TIME – 30 MINUTES

Directions: Read the passage below and then respond to the following three questions.

1. Identify the author's argument, main idea, or thesis.
2. Explain the author's line of reasoning by identifying the claims used to build the argument and the connections between them.
3. Evaluate the effectiveness of the evidence the author uses to support the claims made in the argument.

From "The Uncertainty of Science" in *The Meaning of It All: Thoughts of a Citizen Scientist* by Richard P. Feynman (1998, 2005)

Scientists . . . are used to dealing with doubt and uncertainty. All scientific knowledge is uncertain. This experience with doubt and uncertainty is important. I believe that it is of very great value, and one that extends beyond the sciences. I believe that to solve any problem that has never been solved before, you have to leave the door to the unknown ajar. You have to permit the possibility that you do not have it exactly right. Otherwise, if you have made up your mind already, you might not solve it.

When the scientist tells you he does not know the answer, he is an ignorant man. When he tells you he has a hunch about how it is going to work, he is uncertain about it. When he is pretty sure of how it is going to work, and he tells you, "This is the way it's going to work, I'll bet," he still is in some doubt. And it is of paramount importance, in order to make progress, that we recognize this ignorance and this doubt. Because we have the doubt, we then propose looking in new directions for new ideas. The rate of the development of science is not the rate at which you make observations alone but, much more important, the rate at which you create new things to test.

If we were not able or did not desire to look in any new direction, if we did not have a doubt or recognize ignorance, we would not get any new ideas. There would be nothing worth checking, because we would know what is true. So what we call scientific knowledge today is a body of statements of varying degrees of certainty. Some of them are most unsure; some of them are nearly sure; but none is absolutely certain. Scientists are used to this. We know that it is consistent to be able to live and not know. Some people say, "How can you live without knowing?" I do not know what they mean. I always live without knowing. That is easy. How you get to know is what I want to know.

Note: The inclusion of source material in this exam is not intended as an endorsement by the College Board or ETS of the content, ideas, or values expressed by the authors.

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This freedom to doubt is an important matter in the sciences and, I believe, in other fields. It was born of a struggle. It was a struggle to be permitted to doubt, to be unsure. And I do not want us to forget the importance of the struggle and, by default, to let the thing fall away. I feel a responsibility as a scientist who knows the great value of a satisfactory philosophy of ignorance, and the progress made possible by such a philosophy, progress which is the fruit of freedom of thought. I feel a responsibility to proclaim the value of this freedom and to teach that doubt is not to be feared, but that it is, to be welcomed as the possibility of a new potential for human beings. If you know that you are not sure, you have a chance to improve the situation. I want to demand this freedom for future generations.

Doubt is clearly a value in the sciences. Whether it is in other fields is an open question and an uncertain matter. I expect in the next lectures to discuss that very point and to try to demonstrate that it is important to doubt and that doubt is not a fearful thing, but a thing of very great value.

END OF PART A

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AP SEMINAR

PART B, QUESTION 4

SUGGESTED TIME – 90 MINUTES

Directions: Read the four sources carefully, focusing on a theme or issue that connects them and the different perspective each represents. Then, write a logically organized, well-reasoned, and well-written argument that presents your own perspective on the theme or issue you identified. You must incorporate at least two of the sources provided and link the claims in your argument to supporting evidence. You may also use the other provided sources or draw upon your own knowledge. In your response, refer to the provided sources as Source A, Source B, Source C, or Source D, or by the authors' names.

Source A

From "Why Great Revolutions Will Become More Rare" in *Democracy in America* by Alexis de Tocqueville (1840)

Among a people whose ranks are nearly equal, no ostensible bond connects men together or keeps them settled in their station. None of them have either a permanent right or power to command, none are forced by their condition to obey; but every man, finding himself possessed of some education and some resources, may choose his own path and proceed apart from all his fellow men. The same causes that make the members of the community independent of each other continually impel them to new and restless desires and constantly spur them onwards. It therefore seems natural that in a democratic community men, things, and opinions should be forever changing their form and place, and that democratic ages should be times of rapid and incessant transformation.

But is this really the case? Does the equality of social conditions habitually and permanently lead men to revolution? Does that state of society contain some perturbing principle which prevents the community from ever subsiding into calm and disposes the citizens to alter incessantly their laws, their principles, and their manners? I do not believe it; and as the subject is important, I beg for the reader's close attention.

Almost all the revolutions that have changed the aspect of nations have been made to consolidate or to destroy social inequality. Remove the secondary causes that have produced the great convulsions of the world and you will almost always find the principle of inequality at the bottom. Either the poor have attempted to plunder the rich, or the rich to enslave the poor. If, then, a state of society can ever be founded in which every man shall have something to keep and little to take from others, much will have been done for the peace of the world.

GO ON TO THE NEXT PAGE.

Source B

"A Sane Revolution"
by D. H. Lawrence (1929)

If you make a revolution, make it for fun,
don't make it in ghastly seriousness,
don't do it in deadly earnest,
do it for fun.

Don't do it because you hate people,
do it just to spit in their eye.

Don't do it for the money,
do it and be damned to the money.

Don't do it for equality,
do it because we've got too much equality
and it would be fun to upset the apple-cart
and see which way the apples would go a-rolling.

Don't do it for the working classes.
Do it so that we can all of us be little aristocracies on our own
and kick our heels like jolly escaped asses.

Don't do it, anyhow, for international Labour.
Labour is the one thing a man has had too much of.
Let's abolish labour, let's have done with labouring!
Work can be fun, and men can enjoy it; then it's not labour.
Let's have it so! Let's make a revolution for fun!

GO ON TO THE NEXT PAGE.

Source C

From "Civil Disobedience"
by Henry David Thoreau (1849)

I HEARTILY ACCEPT the motto, — "That government is best which governs least"; and I should like to see it acted up to more rapidly and systematically. Carried out, it finally amounts to this, which also I believe, — "That government is best which governs not at all"; and when men are prepared for it, that will be the kind of government which they will have. Government is at best but an expedient; but most governments are usually, and all governments are sometimes, inexpedient. The objections which have been brought against a standing army, and they are many and weighty, and deserve to prevail, may also at last be brought against a standing government. The standing army is only an arm of the standing government. The government itself, which is only the mode which the people have chosen to execute their will, is equally liable to be abused and perverted before the people can act through it.

. . . Governments show thus how successfully men can be imposed on, even impose on themselves, for their own advantage. It is excellent, we must all allow. Yet this government never of itself furthered any enterprise, but by the alacrity with which it got out of its way. It does not keep the country free. It does not settle the West. It does not educate. The character inherent in the American people has done all that has been accomplished; and it would have done somewhat more, if the government had not sometimes got in its way. For government is an expedient by which men would fain succeed in letting one another alone; and, as has been said, when it is most expedient, the governed are most let alone by it. . . .

But, to speak practically and as a citizen, unlike those who call themselves no-government men, I ask for, not at once no government, but at once a better government. Let every man make known what kind of government would command his respect, and that will be one step toward obtaining it.

. . . All men recognize the right of revolution; that is, the right to refuse allegiance to, and to resist, the government, when its tyranny or its inefficiency are great and unendurable. But almost all say that such is not the case now. But such was the case, they think, in the Revolution of '75. If one were to tell me that this was a bad government because it taxed certain foreign commodities brought to its ports, it is most probable that I should not make an ado about it, for I can do without them. All machines have their friction; and possibly this does enough good to counterbalance the evil. At any rate, it is a great evil to make a stir about it. But when the friction comes to have its machine, and oppression and robbery are organized, I say, let us not have such a machine any longer. In other words, when a sixth of the population of a nation which has undertaken to be the refuge of liberty are slaves, and a whole country is unjustly overrun and conquered by a foreign army, and subjected to military law, I think that it is not too soon for honest men to rebel and revolutionize. What makes this duty the more urgent is the fact that the country so overrun is not our own, but ours is the invading army.

GO ON TO THE NEXT PAGE.

Source D

From "Death of Rosa Parks - Senate Floor Statement"
Statement of Senator Obama (October 25, 2005)

Mr. President, today the nation mourns a genuine American hero. Rosa Parks died yesterday in her home in Detroit. Through her courage and by her example, Rosa Parks helped lay the foundation for a country that could begin to live up to its creed.

Her life, and her brave actions, reminded each and every one of us of our personal responsibilities to stand up for what is right and the central truth of the American experience that our greatness as a nation derives from seemingly ordinary people doing extraordinary things.

Rosa Parks' life was a lesson in perseverance. As a child, she grew up listening to the Ku Klux Klan ride by her house and lying in bed at night fearing that her house would be burnt down. In her small hometown in Alabama, she attended a one-room school for African American children that only went through the sixth grade. When she moved to Montgomery, Alabama, to continue her schooling, she was forced to clean classrooms after school to pay her tuition. Although she attended Alabama State Teachers College, Rosa Parks would later make her living as a seamstress and housekeeper.

. . .

Of course, her name became permanently etched in American history on December 1, 1955, when she was arrested for refusing to give up her seat to a white passenger on a Montgomery bus. It wasn't the first time Rosa Parks refused to acquiesce to the Jim Crow system. The same bus driver who had her arrested had thrown her off a bus the year before for refusing to give up her seat.

Some schoolchildren are taught that Rosa Parks refused to give up her seat because her feet were tired. Our nation's schoolbooks are only getting it half right. She once said: "The only tired I was, was tired of giving in."

This solitary act of civil disobedience became a call to action. Her arrest led a then relatively unknown pastor, Martin Luther King, Jr., to organize a boycott of the Montgomery bus system. That boycott lasted 381 days and culminated in a landmark Supreme Court decision finding that the city's segregation policy was unconstitutional.

This solitary act of civil disobedience was also the spark that ignited the beginning of the end for segregation and inspired millions around the country and ultimately around the world to get involved in the fight for racial equality.

STOP

END OF EXAM

AP Capstone Tips for Students

1. Be prepared to perform your best on AP Exams! Your academic performance provides evidence of your academic achievements as a result of your hard work in AP.
2. Send your AP Exam scores! During AP Exam registration, be sure to indicate the code for the colleges you want to receive your scores. This alerts them of your interest as a potential applicant and invites college recruiters to reach out to you to learn more about your AP Capstone experience and future research interests. The volume of AP scores received by postsecondary campuses helps drive support for credit and placement policies.
3. Indicate your participation in AP Capstone and your future research interests in college applications. It might prompt further consideration of your application and may even yield a scholarship possibility.
4. Be prepared to succinctly describe your AP Capstone experience and a summary of your research and findings. This brief conceptual summary will help you advocate for college credit/placement and allow you to capture the attention of colleges offering undergraduate research opportunities that you may want to further explore.
5. Check the AP Capstone website for more information about the colleges and universities that support the AP Capstone program and offer credit/placement for qualifying scores in AP Seminar and AP Research.

AP Seminar Glossary

alignment — Cohesion between the focus of an inquiry, the method of collecting information, the process of analysis of the information, and the conclusions made to increase understanding of that focus

argument — A claim or thesis that conveys a perspective developed through a line of reasoning and supported by evidence

assumption — A belief regarded as true and often unstated

author — One who creates a work (e.g., article; research study; foundational, literary, or philosophical text; speech, broadcast, or personal account; artistic work or performance) that conveys a perspective and can be examined

bias — A personal opinion, belief, or value that may influence one's judgment, perspective, or claim

claim — A statement made about an issue that asserts a perspective

commentary — Discussion and analysis of evidence in relation to the claim which may identify patterns, describe trends, and/or explain relationships

complex issue — Issue involving many facets or perspectives that must be understood in order to address it

concession — Acknowledgment and acceptance of an opposing or different view

conclusion — Understanding resulting from analysis of evidence

context — The intent, audience, purpose, bias, situatedness, and/or background (larger environment) of a source or reference

conventions — The stylistic features of writing (e.g., grammar, usage, mechanics)

counterargument — An opposing perspective, idea, or theory supported by evidence

credibility — The degree to which a source is believable and trustworthy

cross-curricular — Goes beyond the traditional boundary of a single content area or discipline

deductive — A type of reasoning that constructs general propositions that are supported with evidence or cases

evidence — Information (e.g., data, quotations, excerpts from texts) used as proof to support a claim or thesis

fallacy — Evidence or reasoning that is false or in error

generative artificial intelligence — tools that use predictive technology to produce new text, charts, images, audio, video, etc.

implication — A possible future effect or result

inductive — A type of reasoning that presents cases or evidence that lead to a logical conclusion

inquiry — A process for seeking truth, information, or knowledge through a study, research investigation, or artistic endeavor/work

interdisciplinary — Involving two or more areas of knowledge

issue — Important problem for debate or discussion

lens — Filter through which an issue or topic is considered or examined

limitation — A boundary or point at which an argument or generalization is no longer valid

line of reasoning — Arrangement of claims and evidence that leads to a conclusion

literature — The foundational and current texts of a field or discipline of study

perspective — A point of view conveyed through an argument

plagiarism — Failure to acknowledge, attribute, and/or cite any ideas or evidence taken from another source

point of view — A position or standpoint on a topic or issue

primary source — An original source of information about a topic (e.g., study, artifact, data set, interview, article)

qualification — A condition or exception

qualitative — Having to do with text, narrative, or descriptions

quantitative — Having to do with numbers, amounts, or quantities

rebuttal — Contradicting an opposing perspective by providing alternate, more convincing evidence

refutation — Disproving an opposing perspective by providing counterclaims or counterevidence

reliability — The extent to which something can be trusted to be accurate

resolution — The act of solving a problem or dispute

scaffolding — The provision of temporary structured support for students to aid skill development

secondary source — A commentary about one or more primary sources that provides additional insight, opinions, and/or interpretation about the primary source data, study, or artifacts

sequencing — The organization of curriculum content into an order which progresses from simple to more complex

solution — A means of answering a question or addressing a problem or issue

text — Something composed (e.g., articles; research studies; foundational, literary, and philosophical texts; speeches, broadcasts, and personal accounts; artistic works and performances) that conveys a perspective and can be examined

thesis — A claim or position on an issue or topic put forward and supported by evidence

tone — The way in which an author expresses an attitude about his or her topic or subject through rhetorical choices

validity — The extent to which an argument or claim is logical

vocal variety — Changing vocal characteristics (e.g., pitch, volume, speed) in order to emphasize ideas, convey emotion or opinion, or achieve other specific purposes

About the Appendixes

The following pages include useful information and references for students, parents, educators, consultants or expert advisers, and colleges:

- **Appendix A: AP Seminar QUEST Framework**

  A quick-reference list of the overarching AP Seminar Curriculum Framework big ideas and the essential questions associated with each.

- **Appendix B: AP Seminar Timeline**

  A timeline for teachers and school administrators showing key dates and activities.

AP Seminar QUEST Framework

Q Question and Explore

Challenge and expand the boundaries of your current knowledge

- How does the context of a problem or issue affect how it is interpreted or presented?
- How might others see the problem or issue differently?
- What questions have yet to be asked?
- What voices or perspectives are missing from my research?
- What do I want to know, learn, or understand?
- How does my research question shape how I go about trying to answer it?
- What information do I need to answer my question?
- What keywords should I use to search for information about this topic?

U Understand and Analyze

Contextualize arguments and comprehend authors' claims

- What strategies will help me comprehend a text?
- What is the argument's main idea and what reasoning does the author use to develop it?
- Why might the author view the issue this way?
- What biases may the author have that influence his or her perspective?
- Does this argument acknowledge other perspectives?
- How do I determine if a source is trustworthy?
- What are the implications of these arguments?
- How does this conclusion impact me and my community? Or my research?

E Evaluate Multiple Perspectives

Consider individual perspectives and the larger conversation of varied points of view

- What patterns or trends can be identified among the arguments about this issue?
- What are the implications and/or consequences of accepting or rejecting a particular argument?
- How can I connect the multiple perspectives? What other issues, questions, or topics do they relate to?
- How can I explain contradictions within or between arguments?
- From whose perspective is this information being presented, and how does that affect my evaluation?

S Synthesize Ideas

Combine knowledge, ideas, and your own perspective into an argument

- How do I connect and analyze the evidence in order to develop an argument and support a conclusion?
- What line of reasoning and evidence would best support my argument? Is my reasoning logical?
- Are there other conclusions I should consider?
- What am I taking for granted? How do I acknowledge and account for my own biases and assumptions?
- What is the best way to acknowledge and attribute the work of others that was used to support my argument?
- How can I avoid committing plagiarism?

T Team, Transform, and Transmit

Collaborate, reflect, and communicate your argument in a method suited to your audience

- How can I best appeal to and engage my audience?
- What is the best medium or genre through which to engage my audience?
- What common misconceptions might my audience have?
- How might I adapt my argument for different audiences and situations?
- How might my communication choices affect my credibility with my audience?
- What contributions can I offer to a team?
- What is the benefit of revision?
- How can I benefit from reflecting on my own work?

AP Seminar Timeline

Academic Year 1

AP Seminar instruction begins in the fall

DATE	ACTIVITY
June–August	AP Seminar professional learning.
Summer	**AP Classroom** and **AP Registration and Ordering** open.
August–September	AP Seminar instruction begins. Students can access EBSCO and Turnitin through the **AP Digital Portfolio** once they have enrolled in their AP Seminar class section in My AP.
October	Preferred deadline for AP coordinators to order AP Exams through **AP Registration and Ordering**. See **AP Central** for current deadline.
November 15, 11:59 p.m. ET	Final deadline for the AP coordinator to submit the exam order through **AP Registration and Ordering**, without incurring additional fees. Exams ordered or canceled after this date may incur a fee. See **AP Central** for current deadline.
December	Required online scoring training for AP Seminar launches (for TMP and IMP).
January	Stimulus material for the AP Seminar Individual Research-Based Essay and Presentation is released to AP Seminar teachers in the **AP Digital Portfolio**.
January 31	Final deadline for new teachers to complete and returning teachers to renew the **AP Course Audit**.
January–March	Begin scheduling current AP Seminar students for AP Research and recruiting new AP Seminar students.
March	Spring course orders and fall order changes deadline for AP coordinators to make final updates to the school's order through **AP Registration and Ordering**, if needed. Fees may apply. See **AP Central** for current deadline.
March	Recommended deadline for all AP Seminar teachers to complete required online scoring training modules (TMP and IMP).
April 30, 11:59 p.m. ET	Deadline for all student work to be submitted as final in the **AP Digital Portfolio** and for teachers to submit scores for all presentations in the AP Digital Portfolio.
May 10, 11:59 p.m. ET	Deadline for teachers to submit scores for all student presentations and complete affirmations for required checkpoints in the AP Digital Portfolio.
May AP Exam window	Administration of AP Seminar End-of-Course Exam.
Late May	Late-testing administration of the AP Seminar End-of-Course Exam.
May–June	AP Research teachers should meet AP Seminar students to discuss the course, get students ready to work with a consultant/expert adviser, identify a topic of interest, and develop a research question.
July	AP score reports, including AP Capstone awards, released online.

Academic Year 2

AP Research instruction begins in the fall

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