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Welcome to the Big History Project!

Where did we come from? What causes change? Where are we heading?

Big History takes on these questions that originate with the dawn of time, and gives students a framework to tell the story of humanity’s place in the Universe. It’s more than a history course. Big History helps students see the overall picture and make sense of the pieces: it looks at the past from the Big Bang to modernity, seeking out common themes and patterns that can help us better understand people, civilizations, and the world we live in.

Big History arose from a desire to transcend traditional self-contained fields of study and grasp history as a whole, looking for linked ideas and connections across history’s entire spectrum. By teaching students to explore these connections, and to effectively question, analyze and postulate, it provides a foundation for thinking not only about the past, but also the future and the changes that are reshaping our world.

The Big History Project represents a strong collaboration between teachers, university faculty and technical professionals. Built from the ground up to support the Common Core and best practices from classrooms around the world, the course includes a rich and comprehensive set of videos, readings, infographics, and classroom activities for students and teachers. Throughout, students encounter challenging ideas and questions and learn to connect ideas across 13.8 billion years of time and an array of disciplines. The course asks students to thoughtfully and rigorously engage with the claims they encounter along the way.

Big History is a free online set of course materials. These materials will always be free. All we ask of teachers is to share what they have learned so we can continually make the course better. The best ideas within the course have always come from the teachers that teach it. Here’s what teachers have said about teaching Big History for the first time—we look forward to hearing about your experience!

Big History requires students to examine big questions:

- How has the Universe and life within it grown more complex over the past 13.8 billion years?
- How do we know what we know about the past?
- How can we judge claims about the past?
- Why does what we “know” change over time?
- How does what happened during the early days of the Universe, the Solar System, and the Earth shape what we are experiencing today?

Students get to participate in the important and exciting work of exploring, developing, and testing big answers.
Who Should Teach Big History?

The Big History Project is an interdisciplinary study of change over time from the Big Bang to the future, but at its core, it is a history course. To that end, Big History is designed as a ninth- to tenth-grade history course (for 14-15 year old students). Students will still achieve many of the same outcomes of a high school world history course. Many schools teach Big History in place of world history, world geography or as an elective course in the history department. Some middle schools have offered Big History, simplifying some of the most complex readings. Big History is also used as a capstone course for high school seniors, as there are infinite opportunities for students to delve deeply into complex topics across a range of subjects. Although Big History is designed as a full-year course, some schools will teach it in a single semester, skipping some of the Investigations or the project-based learning (PBL) activities.

The Big History Project (BHP) is a technology-based course, but it is not a self-taught course. BHP assumes a teacher is available to discuss content with students, and to evaluate student work. The course relies heavily on a series of videos, including talks from Big History founder David Christian and other noted scholars. While the various articles and graphic content may be printed and shared in hard copy, it would be very difficult to teach BHP without showing the videos. At the same time, the Big History Project does not require every student to have a computer in the classroom. Many schools teach Big History by showing the videos in class and distributing hard copies of readings for use at home.
Course Themes

The Big History course focuses on three essential skills and three key concepts that we want students to master. The essential skills are: thinking across scales, integrating multiple disciplines, and making and testing claims. The core concepts are: thresholds, collective learning, and origin stories.

Essential Skills

Thinking across scales
- Big History encourages students to think across scales, from the massive expanse of the Universe to the smallest of atoms.
- Students need to think across scale in terms of both time and distance. This helps us to frame our experience at the level of the personal, family, community, national human and geologic experience.

Integrating multiple disciplines
- Big History encourages the use of interdisciplinary thinking and methodologies. Students should integrate the insights of multiple disciplines when analyzing and drawing conclusions about historical information, including social, physical, and natural sciences.
- Students should become aware of a range of scholarly disciplines and understand the types of questions they ask, the types of conclusions that they draw, and the types of evidence they use to support their findings.

Making and testing claims
- Big History encourages students to develop a thoughtful, consistent, and rigorous approach to testing new ideas and information.
- Students should apply these techniques in their writing and other academic discourse.

Core Concepts

Thresholds
- Big History looks at the Universe as a series of moments called thresholds. These moments are characterized by a set of ingredients and just-right ‘Goldilocks Conditions’ that result in new forms of complexity. Big History tells the story of the Universe by using these moments to describe Universal change.
- The use of thresholds is unique to Big History, but it provides a helpful means of analysis that can be applied to more traditional historical contexts and other disciplines.

Collective learning
- Collective learning is the human ability to share, preserve, and build knowledge over time. In Big History, this is the defining characteristic that separates humans from other species.

Origin stories
- There are numerous explanations of the origins of our planet as well as the Universe as a whole. Since the time of the earliest humans, we have struggled to make sense of our world. Big History represents one point of view, and is considered a modern, scientific origin story.
- The Big History origin story is incomplete and will continue to evolve as science and scholarly inquiry continue to advance.
Course Learning Outcomes

1. Explain how thresholds of increasing complexity, differing scales of time and space, claim testing, and collective learning help us understand historical, current, and future events as part of a larger narrative.

2. Integrate perspectives from multiple disciplines to create, defend, and evaluate the history of the Universe and Universal change.

3. Deepen an understanding of key historical and scientific concepts and facts; use these in constructing explanations.

4. Engage in meaningful scientific inquiry and historical investigations by being able to hypothesize, form researchable questions, conduct research, revise one’s thinking, and present findings that are well-supported by scientific and historical evidence.

5. Critically evaluate, analyze, and synthesize primary and secondary historical, scientific, and technical texts to form well crafted and carefully supported written and oral arguments.

6. Communicate arguments to a variety of audiences to support claims through analysis of substantive texts and topics; use valid reasoning and relevant and sufficient evidence through individual or shared writing, speaking, and other formats.

7. Locate and understand how our own place, our community’s place, and humanity as a whole fit into and impact Big History’s narrative.

8. Engage in historical analysis using the theories and practices from multiple disciplines, toward an integrated, interdisciplinary understanding of the history of the Universe.
Course Structure

Part 1: Formations and Early Life

Unit 1: What Is Big History?

Driving Question: Why do we look at things from far away and close up?

1. Define thresholds of increasing complexity, origin stories, and scale. (CO1)
2. Understand that Big History is a modern, science-based origin story that draws on many different types of knowledge. (CO2, CO8)
3. Understand how you fit into the Big History narrative, using the concept of “thresholds” to frame your past, present, and future, as well as the history of the Universe. (CO1, CO7)
4. Understand what disciplines are and consider how the viewpoints of many different scholars can be integrated for a better understanding of a topic. (CO2, CO8)
Unit 2: The Big Bang

Driving Question: How and why do individuals change their minds?

1. Explain the basics of the Big Bang theory and the primary evidence that supports this theory. (CO1, CO3, CO6)
2. Using evidence from texts, explain why views of the Universe have changed over time and the roles that scientists played in shaping our understanding of the origin of the Universe. (CO3, CO5)
3. Understand how to use claim testing to evaluate a claim or resource. (CO1, CO3, CO5, CO6)

Unit 3: Stars and Elements

Driving Question: How can looking at the same information from different perspectives pave the way for progress?

1. Describe how stars form. (CO3, CO5)
2. Explain what happens in the life of a star and explain what happens when a star dies. (CO1, CO3, CO5)
3. Explain how the death of stars results in the creation of heavier elements. (CO1, CO3)
4. Explain why the formation of stars and the emergence of elements are so important in our world. (CO3, CO4, CO7)
5. Understand what scholars from multiple disciplines know about a topic and the questions they can ask to understand the topic from an integrated perspective. (CO2, CO5, CO8)

Unit 4: Our Solar System and Earth

Driving Question: How and why do theories become generally accepted?

1. Explain why planets are more complex than stars. (CO1, CO3)
2. Use evidence to explain how the Earth and its atmosphere developed and changed over time. (CO4, CO5, CO6, CO8)
3. Explain the basic mechanisms and key pieces of evidence for plate tectonics, and how plate tectonics impacts life on Earth. (CO3, CO4, CO5, CO6), (CO2)
4. Explain why geology is important to understanding the history of the Earth. (CO2, CO8)
5. Understand how geologists can work with scientists and historians from other disciplines to form a deeper understanding of the history of the Earth. (CO2, CO8)

Unit 5: Life

Driving Question: How are we still evolving?

1. Describe the conditions that made it possible for life to emerge on Earth. (CO1, CO3)
2. Explain the differences between life and nonlife. (CO3)
3. Describe the major events in the development of life on Earth and explain what is meant by the term biosphere. (CO3, CO5)
4. Use evidence to explain adaptation and evolution, including Darwin’s theory of natural selection and DNA. (CO4, CO5, CO6)
Part 2: Humans

Unit 6: Early Humans

Driving Question: *What makes humans different from other species?*

1. Describe human evolution, using evidence and connection to other species of mammals. (CO3, CO4, CO5)
2. Explain whether or not symbolic language makes humans different. (CO4, CO5, CO6, CO8)
3. Describe how early humans lived. (CO3, CO5)
4. Explain collective learning. (CO1, CO3)
5. Understand what scholars from multiple disciplines know about a topic and the questions they can ask to gain an understanding of the topic from an integrated perspective. (CO2, CO5, CO8)

Unit 7: Agriculture and Civilization

Driving Question: *Was farming an improvement over foraging?*

1. Define agriculture and describe where it emerged. (CO3, CO5)
2. Identify the features of agrarian civilizations. (CO3, CO5)
3. Understand the similarities and differences between the lifestyles of hunter-gatherers and farmers. (CO3, CO5, CO6)
4. Describe how early civilizations formed and their key features. (CO2, CO3, CO6)
5. Understand what scholars from multiple disciplines know about agriculture and civilization and the information each field offers to your overall understanding. (CO2, CO5, CO8)

Unit 8: Expansion and Interconnection

Driving Question: *What are the positive and negative impacts of interconnection?*

1. Analyze what propelled the expansion and interconnection of agrarian civilizations. (CO2, CO3, CO5)
2. Investigate the implications of interconnected societies and regions by looking at how commerce has spread. (CO2, CO3, CO5, CO8)
3. Explain how new networks of exchange accelerated collective learning and innovation. (CO1, CO3, CO5, CO6, CO8)

Unit 9: Acceleration

Driving Question: *To what extent has the Modern Revolution been a positive or a negative force?*

1. Describe accelerating global change and the factors that describe it. (CO3, CO5, CO6, CO8)
2. Understand the key features that define the Anthropocene. (CO2, CO3, CO5, CO6, CO7, CO8)
3. Describe how economies have developed and changed since the Industrial Revolution. (CO2, CO3, CO4, CO5, CO8)
Unit 10: The Future

Driving Question: What’s the next threshold?

1. Explain the Big History story and its defining features and patterns. (CO1, CO2, CO3, CO4, CO7, CO8)
2. Identify important human and environmental issues that affect the future of our species and the biosphere. (CO2, CO3, CO4, CO6, CO7, CO8)
3. Propose a vision of the future based on new understandings of the past. (CO4, CO6, CO7, CO8)
Course Content

The Big History Project course includes a wide range of materials. All course contents come with teaching notes, are available online, and can be downloaded for offline use. These resources include the following:

- **Videos**: A series of talks by historian David Christian, Crash Course, and other noted scholars presenting challenging topics to students, including visualizations of more complex ideas.

- **Texts**: A series of articles and essays by eminent scholars and BHP staff, including first source material. All texts in the course have been leveled, and each article has three or four versions to accommodate students of all reading levels.

- **Activities**: Lessons include both standard activity types (vocabulary activities, for example) as well as customized activities to maximize student engagement and learning.

- **Infographics**: Data-rich illustrations created to illuminate complex topics such as the life of stars and the chemical make-up of the oceans.

- **Image galleries**: Each lesson includes a set of historical and informational illustrations to highlight key ideas and concepts.
Lesson resources

BHP provides a flexible structure for teachers to present the content to their students. The course is divided into units that roughly align with the eight thresholds. Each unit is divided into a set of suggested lessons. Teachers may use this structure, including a set of lessons written by experienced BHP classroom teachers, or incorporate the material into their own lesson plans. Each unit includes the following lesson resources:

Activities

Activities are woven into every unit and are an integral part of every lesson to help students learn, experience, practice, and test concepts covered in the course. Certain activity types are included in multiple units, offering students and teachers consistent practices for exploring Big History themes. Our “Closing” activities are used for formative assessment throughout the course.

Investigations

Investigations ask students to further explore some of the big issues tackled in each unit by answering the unit’s driving question. They encourage students to use the provided material to make arguments and explanations about change over time, while developing student literacy and critical thinking skills. Each investigation asks students to:

1. Frame a historical or other social science problem.
2. Read, analyze, corroborate, and synthesize sources from a selected library of texts and experiences.
3. Develop an explanation or build an argument to resolve their research question.
4. Evaluate their own and others’ claims.

Project-based Learning Activities

Project-based learning (PBL) is an opportunity for students to deeply explore a complex question, problem, or challenge. The Big History Project includes three PBL activities:

- Unit 5: Invent a Species
- Unit 7: How Many People Could Earth Support Now and 100 Years from Now?
- Unit 10: What Is the Next Threshold?
Each of these activities covers two weeks of instructional time. Students work in groups to research their questions, compose a written response, and share their results with their class and the community. Each of these projects is written to follow the PBL methodology of the Buck Institute for Education: [http://www.bie.org/](http://www.bie.org/).

**Guiding Documents**

In every lesson, we provide methodologies that address reading, writing, and approaches to teaching and learning. These guiding documents offer suggested approaches, but you can adapt all lessons to your preferred format. You’ll find the guides in the Teaching Big History section of this document.

**Additional Resources**

Web links to relevant public content are available in every unit. A unit-specific glossary and easy access to the complete course glossary are available on each unit’s main page. Students can also search for glossary terms in the Search field on every page of the site.
Extended Big History Offerings

In addition to the course offered at the Big History Project website, there are a number of other Big History offerings for students and the larger community. These resources, used in tandem with the school course, can provide ways for teachers to involve parents in Big History’s content.

Big History Public Course
https://www.bighistoryproject.com/pages/syllabus

Big History’s public course is shorter and targeted at individuals who simply want to learn more about the subject. Following a magazine-style layout, the site presents 8 to 12 hours of content (in contrast to the school version’s 80 to 150 hours.)

Some schools have used this site to engage parents in the material and even had contests to see which class got the most certified parents.

Big History on Khan Academy
https://www.khanacademy.org/partner-content/big-history-project

The Khan Academy website is hosting a slightly condensed version of the Big History course. Aimed at individuals, it includes many of the classroom materials as well. This allows classroom teachers to use the growing set of Khan Academy analytic tools and mobile applications, while still delivering the same great Big History course.

Big History on YouTube
https://www.youtube.com/user/bighistoryproject

All of the video assets we can share publicly are available on You Tube. This makes it easy for teachers and students to reuse and re-purpose our content for presentations or other content.

Crash Course Big History
https://www.youtube.com/user/crashcourse

John and Hank Green take on Big History with their unique sense of humor and serious insights. The web series, developed in cooperation with the Big History Project, provides a complementary point of view on the course content.
Planning your course

Every teacher teaches Big History a little differently to reflect the needs and interests of their students, their school and themselves. We designed Big History as a year-long course aimed at 9th graders (14-15 year olds). However, many teach the course over a semester. We provide support for this model as well.

Many schools teach Big History by integrating the course with other subject areas. For example, a version of Big History that combines English / Language Arts might align the fiction reading selections to help students develop strategies for reading complex informational texts as well as expository writing. While the Big History Project does not formally support any of the integrated versions of the course, we do provide exemplar course plans from schools are teaching the course this way.

To help you plan your Big History course, we have provided a series of sample course plans shaped by our classroom teachers who are teaching the course in the 2014-15 school year. In addition to the exemplars, we have a planning template to help you document where you might deviate from one of these example course plans.

- Sample Big History Full Year Course Plan
- Sample Big History Semester Course Plan
- Sample Big History Full Year Integrated ELA Course Plan
- Sample Big History Full Year Integrated World History Course Plan

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Teaching Big History

A massive course like Big History, with its new approaches, digital content and curriculum, can challenge the most seasoned teacher. In this section, we provide instructional guides developed along with Big History teachers to help all teachers explore how to get the most out of the course.

The guides aim to provide a consistent and coherent approach to teaching and learning. Each guide, shaped with feedback from our teaching community, shows how we construct lessons, present individual videos and readings, and think about assessment throughout the course.

These guides are suggestions. You may have your own approach in many of these areas. Please share your experiences as they can help to make the course better.

In this section, you will find the following guides:

- Reading
- Discussion
- Writing
- Assessment
- Driving Question Notebook
- Little Big History (LBH)
- Project-Based Learning (PBL)
- Openings
- Vocab Activities
- Interpreting Infographics
- Homework

Teacher as Lead Learner

Before delving into the individual guides, we want to share the Big History instructional philosophy regarding the teacher’s role in the classroom. Big History is interdisciplinary and uses a wide range of knowledge and methods, which can feel daunting to teachers. Indeed, Big History is really, really big. But you don’t have to be an expert on everything. You can successfully teach Big History knowing what you already know. The most important thing is teaching how to learn.

Veteran teachers of Big History quickly realize that it is not possible to have complete command over 13.8 billion years of history. Instead, their role in the classroom is to model historical analysis—a method of systematic and deliberate exploration that seeks to make sense of the past. In Big History, the teacher moves from being the source of knowledge into the role of lead learner.

While science, for instance, is a major element of Big History, we don’t always ask students to go very deep on the underlying mechanics of scientific phenomena.

Instead, we ask them to fold the consequences of scientific understanding into historical analysis, and to think through the implications of scientific insights. For example, we do ask students and teachers to understand that the
distribution of chemical elements in the Earth has influenced critical components of humans’ social and political behaviors. Mining and trading of gold is one illustration. Why is gold found where it’s found? Why is it used as currency? Why can’t we produce more gold? These are all topics covered in the course.

Big History is, after all, a history course. Historical analysis has always sought to draw upon the insights of a variety of disciplines, both social and scientific in nature. So do the fields of geography, geology, anthropology, and archaeology. What makes Big History unique is that it draws upon an even broader array of disciplines, such as chemistry, physics, and astronomy to inform historical analysis.

This course emphasizes how one engages with new ideas and information rather than a single set of concepts and facts. Students have to learn how to hypothesize, ask questions, seek out resources, analyze documents and content, make claims, support those claims, and write clear and cogent arguments. You already know how to do all of these things, and our course guides will help you teach them well.

You are skilled at all of the intellectual practices needed to help your students be successful in Big History. As the lead learner, you are not expected to be the holder of all knowledge—instead, you are the leader in seeking knowledge. You may not know how stars formed, but you know how to figure out how they formed. You know how to model finding this knowledge. And sometimes that might even mean finding an expert in a particular field.

You will certainly find a place for the content you love to teach. As you begin to go through the course materials and explore the Big History story, you will start to recognize where you could use additional resources such as other primary source materials or how to weave pieces of literature and art into the narrative. What’s important, especially as part of developing your students’ twenty-first century skills, is that students know how to ask questions, find and make sense of information, and apply what they’ve learned.

Perhaps the most important aspect of teaching and learning Big History is to remember not to lose sight of the narrative. The purpose of the Big History story is for students to learn how the Universe progressed from something incredibly simple to the most complex lifeforms that we are currently aware of today. While the vast majority of the Universe’s history has revolved around the creation of stars, planets, and galaxies, Big History focuses on how humans are connected to everything in the Universe and how humans will deal with the challenges of the future.

Big History veteran teachers have found the following list of books extremely helpful in supplementing their knowledge of the topics covered in the course:

- Cynthia Stokes-Brown, *Big History From the Big Bang to the Present*, 2008
- Bill Bryson, *A Short History of Nearly Everything*, 2002
Big History Reading Guide

The Big History course provides you and your students with a lot of difficult readings, so we provide a variety of resources and a particular instructional approach to help ensure that your students understand course material. Note that this is about helping your students read in general, it’s not a guide on how to teach reading history.

Reading Resources for Teachers

We offer these resources to help you provide each student with appropriate readings.

1. Lexile Measures—The Lexile level of each text is provided so that you can differentiate accordingly for your students.
2. Multiple versions of readings—Newsela, a group that provides nonfiction news articles at varying reading levels, has edited our readings and provided three or four versions of each, ensuring that your students can access some version of each reading.
3. Vocabulary—Vocabulary activities are suggested throughout the course to help your students memorize key words. Understanding these words should ease comprehension of the course readings.
4. Teaching tips—As you move through the lessons, teaching tips are provided to help approach readings with your students.

Approach to Reading

Some of the reading involved in Big History can be challenging, but it is vital for the course. To help your students prepare to discuss each text, complete investigations and master Big History’s essential skills, we have mapped out a deliberate approach to the reading.

These methods have been borrowed from long-established methodologies and best practices for teaching reading.

We urge you and your students to go over each text three times: reading for gist, reading for facts, and reading for comprehension and extension.

While three close reads may sound like a lot, in the end it will save you and your students time. It will help ensure that students can decode and fully comprehend each article, allowing all students to access the information that will help them be successful in the course. Through this process, students will, in general, complete readings more quickly and with more understanding than with one read -- and avoid the frustration and disengagement that can come from approaching a complicated text cold.

In the course lessons, we’ve linked each of the three close reads to a section of every reading activity: The Preview section of each reading activity corresponds to the capturing gist read. The Key Ideas section corresponds to the factual read. The third read maps to the Conceptual Thinking section and addresses the text’s implications and why they matter.

Reading 1: Preview — Capturing Gist

The first reading isn’t really a full reading—rather, it’s a skim and helps capture the general idea of what a reading is about. When reading for gist, we encourage you to follow this format:

1. Title—Have students read the title of the text. What do they think it’s going to be about?
2. **Headings**—Read all headings in a text (if any are present). Does this change what they think it’s about? Have they learned more?

3. **Resource quality**—Is it opinion? A primary document? A research report? Examine the author or resource. Is it legitimate? Have students use their knowledge of claim testing to assess the quality and veracity of the source and how that impacts the types of information they may encounter.

4. **Summarize**—Ask students to briefly summarize what this article is about. A fun way to do this is to ask students to “tweet this.” In 140 characters or less, they provide what they believe to be the gist of the article. This should point to the main theme, premise, or assertion. This is also an assessment of how they comprehend the importance of titles, authors, and other high-level elements of a text.

**Reading 2: Key Ideas — Factual**

Informational reading is the type of reading that students are most used to doing. This type of reading helps students ask questions such as: What was this article about? What are the main themes or claims in the reading? What new information do I know after reading this?

1. **Vocabulary**—As students begin to read, introduce them to any difficult vocabulary they may encounter. It’s important for students not to get tripped up on particular words, so you can help them get ready to read with one of the Big History vocab activities. Give them a list of words and definitions, or ask students to try to figure out words based on the context. If they can’t understand a sentence without knowing the meaning of that word, encourage them to look it up before moving on.

2. **Annotation**—At the end of each paragraph, have students stop and think about the content of that paragraph and make notes in a notebook or the text margins. If they don’t understand something, they can put a question mark to ask about later. This is not a space for thoughts or opinions, just simple facts.

3. **Retell and rank**—Either through writing or discussion, at the end of a reading have students share the key points from the article. Then, have them rank what they learned from most important to least important. This not only helps them remember the contents of the article, but also helps you understand if they are focusing on and understanding the key informational points. In addition, it gives the students access to what others think is the most important information, helping them to view content from a variety of perspectives.

**Reading 3: Conceptual Thinking**

This third reading goes beyond understanding the contents of the article, to understanding the implications of those contents. Why does that information matter? What does it have to do with the Big History narrative? This is arguably the most important part of the reading strategy, but students must first understand the basics of each article from the first and second readings.

After every article and video in the lessons, you will find a Conceptual Thinking section. The questions in this section prompt the exploration of big ideas; help compare, contrast, and explore contradictions; lead to deeper disciplinary and interdisciplinary understanding; promote transfer to familiar or less familiar situations, issues, ideas, and contexts; and encourage analysis and application. It’s important that you ask these types of questions throughout the course—and not just use the ones that are provided—to continue to deepen student understanding.

**Big History Discussion Guide**

One goal of Big History is to help students communicate and collaborate effectively. We want students not only to think and write like historians, but to talk like historians as well. Use the key terms in discussion. Explain how to respectfully disagree and challenge statements. Start with structured discussions at the beginning of the school
year, and soon, your students will learn to engage in thoughtful and meaningful discourse without prompting from you.

Goals for Discussion
1. Support the development of academic language
2. Press for justification and reasoning (that is, use claim testing in discussion)
3. Promote rich and engaging discourse

How to Meet These Goals
We don’t advise doing all of these things at once. Rather, practice each of the main goals and establish norms around those goals and then add the next goal to your list.

Keep in mind that the faster you and your class can master this type of accountable talk the better, but it is more important to do it right than to do it quickly. Finally, the development of rich classroom discourse is a joint effort between you and your students. Make sure to impress upon your students that getting everyone comfortable with historical and scientific argumentation is a shared responsibility—it isn’t easy for anyone, including teachers, to always engage in this way.

Goal 1: Support the Development of Academic Language

No matter what your students’ level of literacy and vocabulary understanding, the more you use academic language in the classroom, including glossary terms and key course terms, the more they will understand and use these words.

1. Start by explaining what academic language is to your students. Ask them: How do scientists talk? How do historians talk? How does this compare to everyday language? Remind them that in this class you are all going to communicate like historians.

2. Keep a word wall in the classroom. Add key terms to this wall throughout the year. Point each other to the word wall when academic language could be used in place of everyday talk.

3. Play discussion games. Note that the goal of these games is not meant to be overly negative or critical, but rather to create a fun way for students to learn to recognize the code switching from informal daily discourse to formal academic debate. Some ideas for discussion games:
   a. Make a few people in the class the “academic language police.” Make it their job to call people out when they are not using academic language when they could. Rotate the “police” game through a few different classes so everyone has a chance to play this metacognitive role.
   b. Have an academic language “swear jar.” Each time a student (or you) are caught not using academic language, you or your students have to complete a task related to that word: use it in a sentence, write the definition on the board, write a quiz question, and so on.
   c. Point out examples of academic language in both course readings and online videos. Have students annotate text to point out what language is academic and what is not. Or, while watching a video, have students note when a speaker is or isn’t using academic language.

4. Watch this video, College Talk, with your students: https://www.teachingchannel.org/videos/improving-student-vocabulary. It’s about a convention that a second grade teacher uses, but the idea behind it applies to all grade levels.
Goal 2: Press for Justification and/or Reasoning (i.e. Claim testing)

Big History teaches the importance of testing claims, and backing up conclusions or assertions. In using academic discourse in the classroom, we are forced to think about and use the concepts of authority, evidence, intuition, and logic. It holds us accountable to our assertions and moves beyond what something is and toward why something is the way that it is. There are many ways to ask students “why” questions, but if you can use a specific set of questions and prompts with your students, it’s easier to establish norms around these conventions.

We suggest you present the following list of questions to your students (and post these permanently in the room.) Discuss how each question connects to one of the claim testers, and then have the students ask you and each other these questions until they are part of everyday discourse.

• Does your answer seem reasonable? Why or why not?
• Would you describe your method and explain why it works?
• How would you prove that? What can you say or show that would convince us your conclusions make sense?
• Do you agree with what you’ve just seen and heard? Why or why not?
• Do you have a reason why you don’t agree?
• Did anyone else draw the same conclusion but have a different way to explain it?
• Can you convince the rest of us your answer makes sense?

Goal 3: Promote rich and engaging discourse

We hope that we’ve created lessons and activities in Big History that support rich and engaging discourse.

To ease discussion, it is important to create a classroom climate in which students feel comfortable both sharing their thinking, and graciously giving and receiving constructive feedback. It is also important to create an atmosphere where students have equal opportunity to share their thinking. Not all students are comfortable with whole-class discussion, so it’s important that while you are working on this type of discourse, you provide a variety of venues for participation. Some possibilities:

1. Turn and talk—Students turn and talk to the person next to them about the topic at hand. We encourage you to have students physically turn to one another in these types of discussion. Body orientation and eye contact matter for engaged discussion.

2. Think, pair, share—Similar to turn and talk, but allows students time to reflect on a topic or question before talking to a partner, and allows them to validate ideas with someone else before sharing with the entire class. This process often works well for students who like to have more time to formulate their thoughts before presenting to the class. Students can also share their partner’s ideas, which encourages effective listening and communication during the “pair” portion.

3. Role assignment—Students are assigned a position to represent. For example, each student might be assigned one of the pressing-for-justification questions and they are responsible for using those questions to ensure accountable talk is taking place. Or, each student takes on the role of one of the claim testers, using authority, evidence, intuition, or logic.
Big History Writing Guide

Writing is a key component of the Big History course. Students need to write well to communicate their understanding and ideas in investigations, closing assignments, and projects. The process of writing and teaching writing can be difficult for students and teachers. This guide is meant as a starting place and we suggest you explore the additional resources to dig deeper into instructional models for teaching writing.

Writing in Big History should build on the literacy skills your students are gaining through close reading of texts and learning key vocabulary. We suggest the following three-part approach for guiding students’ writing and encourage you to build upon your own instructional strategies:

Part I: Prewriting

Prewriting is the act of preparing to write. In many ways, it is comparable to the “Capturing Gist” section of the Reading Guide. In this section, students will address the following:

- **Thesis** – What is the main idea or point you want to get across and why?
- **Brainstorming** – List all the ideas you want to include in the paper.
- **Sources** – Find the sources you might use to support your ideas, using claim testing to evaluate the quality of each source.
- **Scope** – Is the topic too big or too small?
- **Audience** – Is the topic appropriate for the audience?

Part II: Outlining and Drafting

This is where the paper starts to take shape for students. Outlining helps students organize their ideas, present their material in a logical form and flow, show the relationships among ideas, and show where ideas need to be supported with evidence. There are many possibilities for constructing outlines. What most have in common are the following:

- Thesis statement is at the top.
- Ideas are organized into related groups.
- Headings are created from these groupings. Subheadings are then created as needed.
- Supporting evidence is mapped to the different idea groups or headings.
- Conclusions are sketched out.

Once the outline is completed, students should start writing. They turn their basic ideas into sentences and get their ideas out as much as possible. This is not the point where students need to worry about polish – rather, they should be getting their thoughts onto paper.
Part III: Revising and Finalizing

This is the final stage of the writing process. Students should do at least two edits of their paper. The first edit should attend to the ideas in the paper, while the second attends to the mechanics of the paper. When editing for ideas, students should be able to answer yes to the following questions:

- Does the paper follow a logical flow?
- Are the ideas in the paper supported by evidence?
- Is the thesis supported throughout?
- Do ideas transition well from one to the next?

Does the conclusion drive the point home and sufficiently wrap up the paper? When editing for mechanics, students should attend to the following:

- Spelling
- Grammar
- Punctuation
- Formatting

Before submitting the paper, we recommend that students review their own papers using the Big History Writing Rubric. Peer review is another great way to accomplish a review before students submit the final product. A Peer Review Worksheet to help you with this is available for download on the website.

Additional Resources

4. The National Writing Project, a network devoted to improving the teaching of writing: nwp.org
5. Literacy Design Collaborative, an instructional model for Common Core literacy: ldc.org
6. Teaching Channel, a video showcase of teaching practices: teachingchannel.org
Openings Guide

Most Big History lessons start with an opening activity. Opening activities are short warm-up exercises to informally assess students’ understanding and knowledge about the day’s topic. They are also meant to be fun and easy. We strongly encourage all teachers to use the opening activities—these are in many ways just as important as assessment activities since what you learn from your students in the opening may change the way you approach that day’s lesson.

Openings serve the following purpose:

1. **Transition**—All openings serve as a transition into class. They all start with a prompt, question, or other activity that students can start working on independently as soon as they are ready. Establishing this transition routine early in the school year will help students to get the hang of automatically engaging with this when they come in the door.

2. **Activate prior knowledge**—All openings allow for students to think or talk about information they may already know related to the day’s topic. This prepares them to learn and also helps you understand the gaps in prerequisite knowledge that may exist in your classroom.

3. **Reveal misconceptions**—It is easy to develop misconceptions about scientific and historical concepts. The opening activities can give you a sense of your students’ misunderstandings, so you can directly target them.

4. **Assess student understanding**—Openings are an informal assessment activity, but they can still provide invaluable knowledge to both you and your students about what they know and what they still need to learn.

5. **Fun!**—Openings are meant to be fun, low-pressure activities. They invite student participation and aim to engage all students and ease transition into each Big History lesson.
Assessment in Big History

Big History takes a multifaceted approach to assessment. We embed assessment throughout the course, every activity is developed for students and teachers to gain insight into their understanding. The course gives teachers many opportunities to review student work both formally and informally, and find opportunities for improvement and enrichment. However, all assessments are optional and to be used at the teacher’s discretion.

It is important to note that the importance of assessment goes far beyond the teacher: if a student does not have insight into assessment processes and outcomes, the results are only providing the teacher with information about how to change instruction. Students can also monitor their own learning, strengths and weaknesses, and course expectations. Throughout the course, students should reflect on their own work and learn to provide constructive feedback on the work of peers. We encourage this type of reflection through student use of rubrics and peer review, in addition to the daily assessment that comes through using the Big History approaches to discussion.

Rubrics

We have a consistent set of rubrics to grade student writing, presentations, and the Little Big History activities. We provide a standardized set of rubrics for a few reasons. First, it’s confusing for students and teachers alike if we are constantly changing some of the core evaluating mechanisms in the course. Second, consistent standards give students a clear understanding of how to meet the expectations and be successful in the course. Before students are ever graded using Big History rubrics, they first use those rubrics to grade other work. This way, they clearly understand all of the elements of an assignment. Using the same rubric also helps students track their own improvement throughout the course, providing a tangible way to see how their writing is improving and the particular things that they need to focus on.

Closings

Each lesson in the Big History curriculum closes with an assessment activity. These come in many forms and may include quick activities such as a class vote or an exit card, a small group or whole class discussion, or a peer review. They may also be more formal assessments, often in the form of a final paper or investigation writing.

For the most part, the assessment activities are intended to serve as formative assessment, so that both you and your students can regularly monitor their understanding of the concepts in the course. Depending upon how your students respond and perform in these various activities, you may choose to reinforce certain concepts as needed.

Writing Assessments

Throughout the course there will be formal writing assessments. There are formal research papers as well as investigation-related writing. Writing assignments are one of the most important activities in Big History. Not only do students improve their general writing, a skill that is of paramount importance, but they also learn how to write historical and scientific papers. As part of these papers, students learn to ask important questions, hypothesize, conduct research, synthesize information, and justify their claims. In assessing student writing, you will not only get a sense of how your students are developing these vital skills, but you will also be able to gauge their understanding of the course material at a deeper level. In addition, when students peer review others’ writing in the course, they will gain an even deeper understanding of their own strengths and weaknesses.
Lesson Quizzes

There are quizzes for each lesson in the course. These quizzes were created by seasoned Big History teachers using Big History learning outcomes and key vocabulary. One thing to keep in mind with these quizzes is that in many cases they are better used as a class exercise rather than a typical assessment test. It’s nearly impossible to prevent students from finding the answers to the quizzes—they can find a way to create a teacher account on the Big History website and get all of the answers they need. That said, the information in the quizzes include things that we really want students to know to be successful in the class. So, if you approach a quiz as a group activity, you will get a great sense of what your students have learned, what they are struggling with, and what kinds of practices they need to improve upon. They are great for homework, studying, small group, and whole class activities.
Driving Question Notebook Guide

The Big History curriculum has students keep a course-related journal focused on what we call the Driving Question Notebook – referred to as the DQ Notebook throughout the course. This particular journal focuses upon the driving questions from each unit. The aim is to help both students and teachers connect back to the core themes and big ideas of the course.

Students will write in their DQ Notebooks multiple times over each unit. We provide a worksheet for each unit with the driving question and other relevant directions. You should only print these once per unit and the students should reuse them for each of the unit’s DQ Notebook activities. Each time students encounter the driving question, they will be asked to look at it from a new perspective, revising and refining their initial understanding of the unit’s core concepts. The emphasis here is for students to focus on concepts rather than formalized writing.

An additional focus of the DQ Notebook is assessment. While you might not want to formally grade these assignments, they should be useful in understanding how your students’ thinking is progressing, where they are gaining mastery, and where they might need additional instruction. Students can also use them to examine how their thinking has progressed over the course of a unit. Not only does this success feel encouraging, it also mimics the scientific process—as we gather more evidence, our thinking changes. Our earlier ideas may not have been wrong (or perhaps, they were), but the newer ideas are more informed and developed.

The DQ Notebook is a place for students to write informally. It is more about thoughts and ideas and less about perfect grammar and spelling. The Big History course offers many opportunities for formal academic writing; the DQ Notebook isn’t meant to be one of them. We still want students to be thoughtful, back up claims with evidence, and so on, but we really want this to be a space where students can respond to questions, hypothesize, and ask questions of their own without concern for “good” writing.

Who sees the DQ Book?

Everyone. The DQ Notebook will be used in a variety of ways. Students may write and share their thinking with the class. They may peer review one another’s DQ Notebooks, or if you use an online forum instead of using the provided worksheets, everyone will have the chance to read the entries. This will help your students to remain thoughtful and accountable since their entries should always be considered part of a public forum.
Vocab Activities Guide

The vocabulary in Big History is difficult, but vital to understanding the course content. To help reinforce the course vocabulary, we suggest you engage students in at least one vocab activity per lesson. This guide includes a set of teacher-recommended activities that you can use to target the key terms in the course.

Also, keep in mind that there are many online resources for learning vocabulary. These tend to be drill and practice exercises, which can work well for some learners. For example, some Big History teachers have used Quizlet.com to make flashcards for their students.

The menu of vocab activities is divided into three categories. The first group introduces students to vocabulary and helps them memorize words. The second category starts to push at student comprehension of vocabulary words, and the third category supports the application of those words.

Menu of Activities

Memorization
  • Memory/Concentration
  • Mnemonics
  • Crossword Puzzles

Comprehension
  • Game: Real or Fake
  • Quizzes
  • Word Charades

Application
  • Word Webs
  • Group Writing
  • Analogies

Memory/Concentration

This is a very simple—most likely familiar—activity, one that students usually find more fun than you might expect. It’s a simple way for students to practice memorizing vocabulary while playing a game. We suggest that you put students into small groups of three or four.

Process

1. Hand out to each group two 3x5 cards for each glossary term. (So if you have eight glossary terms and four groups of students, each group would receive 16 cards.)
2. Have the students write each glossary term on one side of one 3x5 card and its corresponding definition on one side of another 3x5 card.
3. Once they’ve finished writing all the words and definitions, have them mix up the cards and lay the cards face down on the table.

4. Students then each take turns picking up two cards to see if they can match a term with its correct definition. If the two cards don’t match, they show the other students in the group the cards, and then replace them from the same spots they picked them up.

5. Students continue through this process until all pairs are made.

6. The student with the most pairs wins.

**Mnemonics**

Mnemonic devices are commonly used to help learners remember words and their definitions. The act of creating mnemonics alone can reinforce a learner’s ability to remember and understand a concept. Put your students into teams of two or three. Assign each group a word or words for which they need to create a mnemonic, which they will share with the class. We recommend you compile the class mnemonics for everyone’s use.

There are many types of mnemonics. Although your students can develop their own types, you might want to share these with them before they get started:

- **Music**—A made-up song or jingle that’s the definition of a word. You can use a commonly known tune or something of your own.

- **Name**—The first letter of each word in a list of things to be memorized is used to make an acronym that’s the name of a person or thing. A common example of this is Roy G. Biv, often used to teach the colors of the spectrum (red, orange, yellow, green, blue, indigo, violet).

- **Expression or Word**—This is similar to a name mnemonic, but instead of a name, a phrase is made from the first letter of each word. So for example, for remembering the order of taxonomy in biology (kingdom, phylum, class, order, family, genus, species), you might say, King Phillip Cried Out for Good Soup.

- **Picture**—A sketch or picture that helps you recall a word. These are often silly and therefore easy to remember.

- **Poem**—A made-up poem (rhyming or not) that helps you remember a word.

**Crossword Puzzles**

Creating crossword puzzles for your students is very simple and there are a lot of online tools to help you, such as: Read, Write, Think, Just Crosswords, Variety Games, Armored Penguin, and Ed Helper. Use the definitions of words as clues, and then have students come up with the correct words to solve the puzzle. As an easier alternative, you can create word finds using the same websites.

**Comprehension Activities**

**Game: Real or Fake?**

This is a very quick and simple activity in which students come up with definitions for words and their classmates have to guess whether those definitions are real or fake. This will help test students’ knowledge and understanding of terms.
Process

Hand out words to individual students, and secretly assign each student to either the “real” or “fake” condition (it’s important to do this so not all students make up fake definitions for words). Tell students that they can’t use the glossary definitions for words if they are in the “real” condition. Also, tell them that if they are in the “fake” condition, they should really be trying to trick the other members of the class, so they shouldn’t make their definitions too silly.

1. Once students have created their definitions, have them post the words and definitions around the room. Ensure there is room for students to write at the bottom of the paper.
2. Have students circulate the room and place a star on the posted paper if they think the definition is real, and an X on the paper if they think it’s fake.
3. Have students reveal whether the definition is real or fake. If it’s fake, have students tell you what the real definition should be.
4. The student that tricks the largest number of students in the class wins.

Quizzes

Have students take vocab quizzes at home or in class, and then review and correct the quizzes as a group. The Glossary Challenges in each unit are great for this. You can even have students write vocabulary quizzes of their own for homework, and then take each other’s quizzes in class. Having students write quizzes goes beyond just comprehension to application and leads to deeper learning.

Word Charades

This is based on the idea of the commercial game “Catch Phrase.” Teams can gain or lose points, and the group with the most points in the end wins.

Process

1. Break students into groups of six or so.
2. Give each group a matching set of 3x5 cards with glossary terms written on one side and have them place the cards face down on the table.
3. Have students take turns picking a card from the pile without letting the other students see what’s on the card. Once a student picks up a card, that student has 60 seconds to describe the given word to see if the other students in the group can guess what the word is. The student who is describing CANNOT use that word or any derivative of that word. So for example, if a student picks the term “Goldilocks Conditions,” they can talk about the things that are necessary for a new threshold of increasing complexity to emerge, but they cannot say thing about “gold” or “locks” or “conditions.”
4. If a student does not use any key words and the group correctly guesses the word in 60 seconds, that group earns one point. If the student does use any key words, their turn is immediately over and the team loses a point. If the group does not guess the word in the 60 seconds, the card goes back in the pile and the team loses a point for that round.
Application Activities

**Word Webs**

Word webs are a great way for students to gain a deeper understanding of key vocabulary. They’re also a nice example of how the glossary terms in Big History are often connected to one another. There are so many different ways to create word webs and tons of online resources, but it’s also easy to do quick paper-and-pencil versions in class if you don’t have the electronic resources for building word webs online. Here are two different ways:

For learning individual terms:

1. Have students write the word in the middle of a piece of paper. Draw a circle around that word.
2. Draw a few lines leading away from the circle.
3. At the end of the lines, have students do all or any of the following:
   - Write synonyms for that word.
   - Write a definition of the word. (They must not use the original word in the definition.)
   - Write the major pieces of information that people should know about the word.
   - Write how the word relates to Big History.
4. If you want to continue this activity, have students circle any synonyms they wrote down, and then have them add more lines radiating away from that word. Repeat Step 3.
5. Keep going until students have exhausted what they can write about the word.

For understanding how Big History terms connect to one another:

1. Assign students three or four words and have them write them down, spreading out their placement on the paper (a triangle formation works well).
2. Have students circle each word, and then connect lines between each word. You can also have them write each word’s definition inside the circle.
3. On the connecting lines, students should write how the two words related to one another.
4. In the space in the middle, have students write a sentence or two about how all three words connect.

**Group Writing**

Assign groups of students a few vocabulary words, and then have them write a cohesive and logical paragraph using them. Then, share out with the entire class. This could also be used as an individual homework assignment. This can be a surprisingly difficult activity, so consider providing the following directions to students to help them construct their paragraphs.

1. Find a common theme in your list of vocabulary word. (Note: you should also consider assigning groups of related words—this will usually happen seamlessly because the lessons and units have related vocabulary.
2. Create a hierarchy of the words. Is there one word that really describes the theme and the other words support that?
3. Think about what part of speech the individual words belong to: Are they nouns? Verbs? Adjectives? (Note: This will help your students fit the words into sentences.)
4. Begin the paragraph with a very clear topic sentence.
5. Use synonyms to reinforce the meaning of the words in the paragraph.
6. The paragraph should be at least four sentences.
7. Do not use the words and their definitions in your sentences—this isn’t a list of words and definitions. Use the words to describe concepts, build statements, and so on.

**Analogies**

Creating analogies for words is a great activity not only for comprehension, but also for memorization. Analogies help students more deeply understand the meaning of words and concepts. For this activity, we suggest having students work in pairs or small groups. Give each group of students a few vocabulary words to work with, and ask them to create metaphors or analogies for each word. If you need to review what metaphors and analogies are with students, here are some tips:

1. Remind them that metaphors and analogies are comparisons between unlike things that might have some particular elements in common. Ask for or give them some examples of common metaphors and analogies such as:
   - The apple does not fall far from the tree.
   - The human eye is like a camera.
   - It costs an arm and a leg.
2. Create one or two analogies as a whole class exercise. To do this, select a concept that students are familiar with that has some similarities with a new concept. In Big History, you might choose to create an analogy for a claim tester. To do this, you might select the familiar or related idea of evidence. As a class, brainstorm characteristics or qualities that are shared by the two concepts, and those that are not. The categories of comparison should help you come up with an analogy or metaphor for the original word.
3. You may also want to use a graphic organizer to help students draw analogies. An online search for “Analogy Graphic Organize” will yield a large variety of options.
Interpreting Infographics Guide

Infographics are visual representations of information meant to simplify complex concepts by presenting data in a way that tells a story or makes an argument. Big History often uses infographics to display and summarize information. Interpreting them is a skill that requires students to understand the relationships between the data displayed, the technical vocabulary, and what the author is trying to say through the visual representation. We recommend you provide your students with a set of questions that will help them pick out the key features of an infographic. In addition, while some students might easily understand the information, there are other elements of infographics, such as sources, that are easily forgotten.

For example, this infographic from Unit 3 helps students to understand the life cycle of stars, the different kinds of stars that exist, and what the stars produce.

Have students ask themselves the following questions when they look at an infographic. These questions are also in the Infographic Worksheet for students to refer to throughout the course.

1. What is the first thing that catches your eye? What might this tell you about what you are looking at?
2. What is the title? Does that reinforce your thoughts regarding what you thought this was about, or change them?
3. What is the story that the infographic is trying to tell? Is it a pure visualization, does it show change over time, is it comparing and contrasting?
4. What are the patterns and connections visible in the infographic?
5. What is the quantitative information presented in the graphic? What does it tell you?
6. What is the data source? Use your claim testers to determine if this data source is valid and robust.
7. Why do you think the authors chose to present the information in this way? Who is their audience?
8. Summarize the infographic in a few sentences. What is the gist of the infographic and what are the most important take away points?
Homework Guide

Homework is an important aspect of any type of learning. The development of mastery and expertise can only happen through repeated deliberate practice, and the way that people use their time to learn has a large impact on learning. Learning scientists have shown that “deliberate practice” around a topic, including the monitoring of one's own learning, is what leads to successful learning. Therefore, the process of doing homework that you carefully assign not only helps students recall and revisit what they have learned, but it is also a “deliberate” way of doing this, requiring a process of self-monitoring out of the classroom that will lead to maximum learning.

We chose not to include homework suggestions in the lessons—we know many schools have conventions around homework and we don’t want to disrupt that process. We expect that homework will often emerge organically from course content, often for work that you did not have time to finish with your students in class. However, sometimes it is helpful to be more deliberate around homework, and we’ve received some great tips and tricks from Big History teachers about reinforcing learning beyond the classroom.

Video

We love the idea of using videos as homework. Videos are vital to the course, but can take up a lot of class time. While it’s hard to ensure access for all students, if you assign video homework with enough notice, you can help students find a way to watch the videos in a school library, a public library, or on a smart phone, for example.

Some things to keep in mind when assigning video homework:

• We strongly recommend that you begin the course by watching the videos in class in order to help students grasp the complex information that is being presented. View the main content videos multiple times to ensure students understand the material. Watch the video all the way through the first time and then show it again, stopping at moments where content needs to be explained more thoroughly.

• It’s best to assign an activity along with the video. Passive video watching, like passive reading, often leads to little or no comprehension of the video. The discussion questions we provide can be great prompts for students. Or, you might assign a larger question for students to think and write about in relation to the video.

• Assigning a 10-minute video along with an activity will likely take students a lot longer than 10 minutes. Please keep that in mind when thinking about assigning videos for homework.

Readings

As with videos, it’s important to ensure that reading is an active process. We suggest sending the Three Close Reads Worksheet home with students. If students don’t have technology access at home, reading assignments can always be printed at school for students to take with them.

• As described in our reading guide, we provide three or four different versions of the same article for students at different reading levels. This allows all students to access the same content, but it is differentiated to fit their specific academic needs.

• As with the video homework assignments, carefully gauge how long it will take to read an article. If the reading assignment is particularly long, consider having students do the first and second close reads at home, and then have them do the third read in class.
Little Big History

The Little Big History (LBH) project is the culminating project of the Big History course. It allows students the opportunity to delve into an event, object or idea from a Big History perspective. This project has both collaborative and individual aspects, and results in either a presentation or service project.

Exactly what is a Little Big History? A LBH will do the following:

- With a compelling narrative, it tells the story of an object across at least three thresholds (one of them pre-human)
- It incorporates the perspectives of at least three disciplines, including history.

Working in teams, your students might choose to investigate one of the following:

- an object or a commodity (anything that is bought and sold)
- a process or technical innovation
- a social construct or institution
- an activity

Basically, it can be just about anything that interests them and that they can research. However, many teachers have reported it is much easier for students to research objects than more abstract concepts. To make things simpler for their students, one team of teachers limits the class to “things they can buy at Walmart.”

At the end of the project, each member of the group will complete a collaborative group paper, an individual paper, and a group presentation on the subject of their LBH. The best Little Big History projects are great stories, that highlight connections and insights about the subject. Students need to work together to ensure they bring their story to life.

The Little Big History Project is a significant amount of work. Students begin work selecting their topics in the second half of the course and begin writing in earnest in unit 8. To help prepare students to work on their Little Big Histories, students are exposed to activities that help them view examples or become familiar with the rubrics that will be used to evaluate their work later in the year.

It is worth noting that the History Channel program Big History was inspired by the Little Big History Project. The episodes of this show provide students with a wealth of examples of what a Little Big History can be, for example, tracing the role of salt or silver in trade and civilization.

LBH Preparation Units 1-5

In the first half of the course, students spend time practicing the skills needed to complete an LBH, such as essay writing or use of the rubrics

Lesson 3.1.6 – A Little Big History of Silver

- Students encounter their first “Little Big History” in this article. This will begin to familiarize them with the idea behind a LBH.
Lesson 3.1.7 – Watch Silver Supernova

- Students watch the H2 video Silver Supernova, an episode from the History Channel’s Big History series. Not only should this video continue to deepen their understanding of what makes an LBH, but it should also give them some ideas about how you might present an LBH.

Lesson 3.1.8 – Grading Silver Supernova

- Students use the presentation rubric to evaluate Silver Supernova. This is the same rubric that will be used to evaluate their LBH presentations at the end of the year.

Lesson 3.1.9 – Little Big History of an Element

- This activity is a continuation of the previous activity, Grading Silver Supernova. This time, students will work on their own to further their understanding of the Big History Presentation Rubric. Understanding the importance of narrative in explaining complex ideas is often a challenge for students, and it is something they have to include as part of their LBH projects.

Lesson 4.1.4 – Evaluating Writing

- Students evaluate “Early Earth,” a sample Big History essay, using the rubric that will be used to grade their own writing in the course. The goal of this activity is to familiarize students with the rubric by asking them to review the rubric’s categories and the descriptions of the standards by applying them to a sample paper. This is the same rubric that will be used to evaluate the writing in their LBH’s.

Lesson 5.2.7 – Convincing Narratives

- Students will use their claim testing abilities as well as their research and writing skills to evaluate a Big History H2 video, and then write a persuasive essay about the importance of meteors. This not only exposes them to yet another example of an LBH, but also allows them the opportunity to work on narrative writing, an important element of a good LBH.

LBH Project Units 6-10

In the second half of the course, you will encounter LBH activities that help students complete the project. The LBH projects are big, and it’s important to be sure to pace the last few units appropriately so students have time to work on them. It’s also a great idea to make an event of the final presentations – this tends to invite a higher quality product from students and generates a lot of excitement.

Lesson 6.1.6 – Little Big History Kickoff

- Students are introduced to the LBH project for the first time. They will get into their LBH project groups and begin brainstorming some possible ideas for their projects.

Lesson 6.3.7 – Little Big History – Choosing Your Focus

- Students make a final decision about the LBH object they’ll study and research for their culminating project of the year.

Lesson 7.0.8 – Little Big History Biography

- Students will answer a general set of questions about their Little Big History topic. This activity will help them become more familiar with their LBH topic and formulate better research questions when they start their
final project. In addition, students will spend focused time reviewing and applying the collaboration rubric that will be used at the end to grade their participation in the group.

Lesson 7.2.7 - LBH – Research Questions

• Students explore the questions they might answer in researching their Little Big History project.

Lesson 8.2.7 – Little Big History Final Project

• This is the last structured Little Big History activity before the final presentations. Students will narrow down the subject of their paper and to choose how they would like to present it.

At this point, please be sure to schedule class time, check-ins, or homework around these final activities so students continue to work on the projects. We highly recommend that you do not have students working on other projects at the same time that they are working on their LBH’s.
Project-based learning

Project-based learning (PBL) is an instruction method that has students explore a complex question, problem, or challenge in depth. Veteran Big History teachers have reported having great fun, and successful learning when using these projects. Each activity covers two weeks of instructional time. The Big History Project includes three PBL activities:

• **Unit 5:** Invent a Species — This project challenges groups to invent a new species. They have to decide where their species came from, how it evolved, what skills and abilities it has, the trends that led to its survival, and so on. The development of their species must be grounded in scientific thought and reason. The deliverables for the project are a model of the species and a Wikipedia entry about that species.

• **Unit 7:** Feeding the World — This PBL, asks pairs of students to determine how many people the Earth could support now and in 100 years, and what conditions would be necessary to support those numbers. The deliverables for this project are an infographic, a narrative of each condition, and a structured poster presentation.

• **Unit 10:** What Is the Next Threshold? — In groups, students determine the next threshold. But rather than just imagining something, they have to use their knowledge of the prior threshold to rationally and scientifically predict what is next. They will create a threshold card and a podcast or newscast that explains the next threshold and the rationale behind why this prediction is logical and based in reason.

In each, students work in groups for two weeks to research their questions, compose a written response, and share their results with their class and the community. Each of these projects is written to follow the PBL methodology of the Buck Institute for Education: [http://www.bie.org/](http://www.bie.org/).
Join the Community

This course is driven by a deeply engaged group of educators. We draw much of the instructional content from the best practices of Big History veteran teachers. By contributing feedback and suggesting new ideas, current teachers play an immensely important role in the continual improvement of the Big History course.

You can join other Big History teachers in community discussions (online and offline), and by attending our Big History Project summits and "cluster meetings" to share your ideas and help shape the course.

BHP Teacher Community

Use the appropriate Group to talk about course preparation, Unit content, Little Big Histories, assessments or make general comments.

Search for posts across the Big History Teacher Community

Description of the discussion Group

Members participating in this Group

Core resources highlighted for this Group

Posts related to the Group
Big History Project Evaluation efforts

As part of our ongoing efforts to make the course as good as it can be, the Big History Project has teamed up with the University of Michigan to run an ongoing evaluation effort. The goal of these efforts is to help us answer the following questions:

• What are the reactions of students and teachers to the BHP program and materials?
• What is the impact of the Big History Project on student reading and writing abilities?
• What can be done to improve the quality of the BHP materials and program?

To provide insight into these questions, we ask teachers and students to complete a set of brief surveys as well as a series of short assessments. All data collected is stored anonymously, in accordance with the requirements of the University of Michigan Institutional Review Board.

A subset of the larger Big History community has been identified as ‘Design Partners’. These schools have agreed to provide data on a specified schedule for the 2014-15 school year in the United States and for the 2015 school year in Australia. While we will review survey data from all schools in the Big History Community, we will only score data coming from our design partners.

Design Partners in the United States have been asked to submit data on the following schedule:

Wave 1 September 15
• Teacher Perception Survey
• Student Perception Survey
• Investigation 2

Wave 2 February 2
• Teacher Perception Survey
• Student Perception Survey
• Student Concept Assessment
• Investigation 6

Wave 3 June 1
• Teacher Perception Survey
• Student Perception Survey
• Student Concept Assessment
• Investigation 9

Unit Logs Due at the conclusion of each unit

If you have any questions about the evaluation program or any other topic related to Big History, please contact us at help@bighistoryproject.com.