

Lesson 6: The Agricultural Revolution

Big Ideas of the Lesson

- The end of the Paleolithic Era coincided with the last Ice Age, and by this time, humans had spread across most of the earth.
- The end of the last Ice Age is known as the Great Thaw, occurring about 10,000 years ago, and it generated warmer, wetter, and more productive climates.
- These changes marked one of the major turning points in human history, a gradual shift from a time when all humans gathered their food (foraging) to one in which most humans produced their food (agriculture).
- Settled agriculture appeared independently in several different regions of the world that were well suited for farming because of environmental factors and population patterns. However, some groups remained foragers (in fact foragers still exist today).

Lesson Abstract

In this lesson, students leave the Era of Foragers and begin their study of the Agrarian Era. In particular, they consider where, when, and why agriculture developed. The lesson begins with a “Previously On” discussion in which the teacher and students review ideas related to the Foraging Era and the Big Thaw. Next, students analyze two photographs of artifacts in order to make inferences about their origins and consider the difference between foraging and agricultural life. The lesson then moves to a guided reading activity with a timeline that introduces students to basic chronology and the different eras of human history. To develop students’ understanding of “turning points”, they engage in a map interpretation activity to explore the timeline and geography of early agriculture and then make inferences about the impact of climate and environment on this process. Finally, students talk in pairs and then write an exit slip making conjectures about why there were fewer humans before the Agricultural Revolution.

Content Expectations¹: 6 - W1.2.1; W1.2.2
6 and 7 – H1.1.1; H1.2.1; H1.4.2
7 - W1.1.2; W1.2.1; G1.1.1; G4.3.2

Common Core State Standards for Literacy in History/Social Studies: RH.6-8.2, 4, and 7; WHST.6-8.4, 9, and 10

Key Concepts

adaptation
agriculture
evidence

¹ The language of the content expectations and common core standards can be found in the Reference Section at the end of the lesson.

foraging
Neolithic Era
settlement

Lesson Sequence

1. Begin the lesson using a “previously on” strategy. This allows the teacher to conduct a quick review of what students have been studying by highlighting only the information necessary for students to be able to make sense out of the new material that will be presented in the lesson. This strategy is used often in television or movie series as a way to get the viewer up to speed so they can understand the episode that they are about to watch. To do this, have students work in small groups of three or four to answer the questions listed below. Make sure that all students are actively engaged by assigning roles such as recorder, timekeeper, encourager, and spokesperson. A copy of these questions has been included in the *Supplemental Materials (Unit 2, Lesson 6)* for convenience.
 - What were the key features of foraging communities?
 - What would a day in the life be like for someone living in a foraging community?
 - What tools would they have used?
 - What types of activities would be most important during the day?
 - What type of home would they have had?
 - How big would a community be and who would be in it?
 - What questions do you still have about humans in the foraging era?

Have each group share the highlights of their discussion and discuss the remaining questions they have. (This is a time to clarify any misunderstanding students might have as well as to answer remaining questions before moving on).

2. Remind students that for much of the Paleolithic Age, the Earth was a very cold place, much of the landmasses were tundra. Then, about 15,000 years ago the Earth went through the Great Thaw. Using Word Card #32, explain to students that during the Great Thaw glaciers shrank, sea levels rose, consuming the continental shelves, and temperatures increased. Plants, forests, and large expanses of vegetation grew. With more vegetation, animals began to flourish. There were so many natural resources available that bands of humans began to settle for long periods of time. Ask students to predict what changes the Great Thaw might have helped produce for humans.
3. Provide students with “**Handout 1, Artifact Observation Sheet,**” located in the *Supplemental Materials (Unit 2, Lesson 6)* or display it for the class. Ask students to guess what the artifacts are and push them to base their guesses upon specific observations. Have students answer the remaining questions on the worksheet in a think-pair-share format. During the share time, be sure to ask students to explain their thinking. If students do not observe that the items look heavy and would be difficult for foragers to carry with them from place to place, guide them to that conclusion with probing questions (e.g. “Do you think items would be easy to carry for long distances?”).
4. Next, explain to students that these artifacts come from settled, farming – or agrarian – communities and represent our first historical ‘turning point’ in the course, the shift from most people foraging to most people farming. Explain to students that they will be examining the

Agricultural Revolution, a time when some foraging humans began to farm and settle in one place for very long periods of time. This began about 10,000 years ago. Make the point that these changes were gradual and took place over thousands of years as people in some areas intensified their use of one spot to find, and gradually produce, food. Emphasize that this shift was not a conscious choice made by one group of people, but rather something that unfolded over a long period of time. Use the lesson graphic and Word Cards #33 - #36 to help students understand the terms Paleolithic Age, agrarian, turning point, and Agricultural Revolution.

5. Project the “**World History Timeline**,” which can be found in the *Supplemental Materials (Unit 2, Lesson 6)* to the class. Guide students as they orient themselves to this particular timeline. Then, have students work in pairs to answer the questions on the handout, “**Student Handout #2 - World History Timeline Interpretation Guide**,” also located in the *Supplemental Materials (Unit 2, Lesson 6)*. An answer key has been provided in the *Supplemental Materials (Unit 2, Lesson 6)*.
6. When the students have completed their work, have different pairs share their answers for different questions so that each one is addressed. If students give an incorrect answer, ask other students to respond before doing so yourself. Push students to explain their thinking with statements like, “Tell me more...” or “That’s interesting, why do you think that?” or “How did you figure that out?”
7. Explain to the students that BCE is equivalent to BC and CE is the same as AD. BC stands for Before Christ, and AD stands for Anno Domini (after the year of our Lord). The terms BCE and CE were developed as more secular (non-religious) descriptions for our system of keeping track of years. Use Word Cards #37 and #38 to help explain these terms.

Teacher Note: *If you don’t have time to finish steps 1-7 in one class period, you can either assign the remainder as homework or carry it over to the next period.*

8. Next, have the students work with “**Student Handout #3 – The Development of Agriculture Across Time and Space**,” located in the *Supplemental Materials (Unit 2, Lesson 6)* along with the answer key. Introduce the exercise by asking a few students to share their favorite fruits or vegetables. Ask them next how long they think people have been growing and eating these products. Tell them they are going to explore some of the first crops ever purposefully cultivated (grown and harvested) by humans. Allow them to work in pairs on the handout. Move around the room and check for comprehension by looking at what students are writing and asking them to explain their answers. You may want to tackle the last two questions with the whole class using probing questions (examples provided) as they may be difficult for many students.
9. Now that students have looked at the big picture related to the development of agriculture, ask them to ponder these questions and venture some educated guesses. First have students Turn and Talk about the questions below. Tell them they will use their ideas from this discussion for a written Exit Slip, therefore they should take notes as they talk with their partner.
 - What is needed for humans to live as foragers?

- What would humans need to live in a village?
- What environmental changes might have changed how humans lived?
- If humans spent nearly 200,000 years living as foragers, why did they begin farming and staying in one place?

10. Next, have student pairs quickly discuss the Exit Slip prompt below, and then individually write their answer on the Exit Slip.

Exit Slip Prompt: Even though the Foraging Era lasted for more than 200,000 years and the Agrarian Era only lasted for about 10,000 years, 70% of all humanity lived during the Agrarian Era. Why do you think that such a small percentage of humans lived during the longest era of human history? Use examples from today's lesson and your prior knowledge to support your answer.

Reference Section

Content Expectations:

- 6 – W1.2.1: Describe the transition from hunter-gatherer to sedentary agriculture (domestication of plants and animals).
- 6 - W.1.2.2 Explain the importance of the natural environment in the development of agricultural settlements in different locations (e.g., available water for irrigation, adequate precipitation, and suitable growth season).
- 7 - W1.2.1:
- 6 and 7
H1.1.1: Explain why and how historians use eras and periods as constructs to organize and explain human activities over time.
- 6 and 7
H1.2.1: Explain how historians use a variety of sources to explore the past (e.g., artifacts, primary and secondary sources including narratives, technology, historical maps, visual/mathematical quantitative data, radiocarbon dating, DNA analysis).
- 6 and 7
H1.4.2: Describe and use themes of history to study patterns of change and continuity
- 7 – W1.1.2: Explain what archaeologists have learned about Paleolithic and Neolithic patterns of living in Africa, Western Europe, and Asia.
- 7 – G1.1.1: Explain and use a variety of maps, globes, and web based geography technology to study the world, including global, interregional, and local scales.
- 7 – G4.3.2: Describe patterns of settlement by using historical and modern maps.²

² In this lesson, students use a map to explore early agricultural settlements. Accordingly, while the expectation itself is addressed, the examples used to explain the expectation "(e.g., the location of the world's mega cities, other cities located near coasts and navigable rivers, regions under environmental stress such as the Sahel)" are not applicable in this context.

Common Core State Standards for Literacy in History/Social Studies

- RH.6-8.2:** Determine the main ideas or information of a primary or a secondary source; provide an accurate summary of the source distinct from prior knowledge or opinions.
- RH.6-8.4:** Determine the meaning of words and phrases as they are used in a text, including vocabulary specific to domains related to history/social studies.
- RH.6-8.7:** Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts.
- WHST.6-8.4:** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
- WHST.6-8.9:** Draw evidence from informational texts to support analysis, reflection, and research.
- WHST.6-8.10:** Write routinely over extended time frames (time for reflection and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Instructional Resources

Equipment/Manipulatives

Overhead projector/LCD projector

Student Resource

The Origins of Agriculture. The University of Sheffield. 20 April 2012.

<<http://aps.group.shef.ac.uk/apsrtp/aps-rtp-2010/kluyver-thomas/project.html>>

Teacher Resource

"Big Era Three." *World History for Us All*. San Diego State University. 20 April 2012

<<http://worldhistoryforusall.sdsu.edu/eras/era3.php>>.

Christian, David. *This Fleeting World: An Overview of Human History*. Berkshire Publishing Group, 2005.

McCarter, Susan. *Neolithic*. Routledge, 2007.

Woodward, Stacie and Darin Stockdill. *Supplemental Materials (Unit 2, Lesson 6)*. Teacher-made materials. Oakland Schools, 2012.