



Big Era One
Humans in the Universe
13 Billion - 200,000 Years ago



Panorama Teaching Unit
How Did We Get Here, Anyway?
The Foundations of Human History
13,000,000,000 - 200,000 Years Ago

[PowerPoint Overview Presentation](#)
[Hominids Walk the Earth](#)

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Why this unit?

Have humans always been here on earth? Will we always be here? These are questions of central and enduring interest and importance. Human history is set on the stage of Planet Earth. We cannot understand our own history as a species during the time that we *have* been on earth without understanding the long-term physical and natural setting in which human history has taken place. It is a setting that all people share regardless of the differences between us that we so often emphasize.

Human evolution has occurred over a huge span of time when compared to the lifetime of any individual. Yet the time it has taken us to evolve into *Homo sapiens*, a species distinct from our predecessors and from other animals, is only the blink of an eye compared to the scale of astronomical and geological change. Understanding the vast scales of time within which *Homo sapiens* arose is critical to appreciating how little time it has taken us to develop into the most influential species in our planet's history. Big Eras Two through Nine encompass the entire history of *Homo sapiens* – yet, together those eras cover only 1/6500 of 1 percent of the time span of Big Era One, the period before our species appeared on earth!

The lessons in this panorama unit highlight three issues that establish the context in which human history has taken place.

- Lesson 1 explores the scales of time in which the evolution of our universe, the earth within that universe, and humans on that earth have occurred. Through kinesthetic exercises, students compare the scale of such changes with scales of time to which they can relate from their own experiences. The purpose of the lesson is to develop students' "chronological literacy."
- Lesson Two examines how humans fit into the biological realm by distinguishing the *physical* characteristics that make us different from any other organism.
- Lesson Three further establishes our distinctive nature in terms of the *cultural* characteristics, notably language, that define us as uniquely human. This lesson sets the stage for Big Era Two, in which students explore how humans' development of symbolic language led to the immense cultural changes that make up our history.

Unit objectives

Upon completing this unit, students will be able to:

1. Construct a simple timeline incorporating important events in the history of the universe, the earth, and human evolution.
2. Explain the length of a human life compared to the time from which humans first appeared on earth to the time since the universe, the sun, the earth, and life on earth came into existence.
3. List dates of important events in the evolution of the universe, the earth, life on earth, and the human species and describe the relative lengths of time between these dates.
4. Identify the important physical differences that distinguish humans from other organisms.
5. Identify important cultural differences that distinguish humans from ancestral hominids.

Time and materials

The total instructional time required to cover the central concepts of the three lessons should be about 250 minutes: Lesson One, 150 minutes; Lesson Two, 50 minutes; Lesson Three, 50 minutes. Use of extension activities may increase these times.

Almost all materials used in the lessons, including student handouts (to be printed in multiples) are included here. You will also need:

- One sheet of 13” x 18” colored construction paper and one sheet of 13” x 18” heavyweight construction paper per student (Lesson One).
- Scissors, glue, crayons, colored pencils, markers, and assorted scrap materials such as fabric, buttons, and string (Lesson One).
- One roll of cash register tape to construct a “Timeline of the Universe” (Lesson One).
- PowerPoint Overview Presentation for this teaching unit.

Teachers may also wish to supplement both Lesson One and the web resources identified for Lesson Three with books, several of which are identified in the Resources section of this unit.

Author

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Lesson One

How Long is “A Long Time”?

Preparation

Create a “Timeline of the Universe” by decoratively marking a roll of cash register tape with the following events at the given intervals on a scale of 100 feet. Choose an overall length for the timeline to coincide with the length of a large space, such as a hallway or yard. Use that space to conduct the “...or is it?” section of Lesson One (pp. 9-10). In the table, “BP” means “Before Present”, that is, “years ago”.

<u>Event</u>	<u>Location</u>
Big Bang: Origin of the Universe (13 Billion BP)	0
First Stars and Galaxies (12 Billion BP)	7’ 8”
Our Solar System: Sun and Planets (4.6 Billion BP)	64’ 7”
Oceans on Earth (4 Billion BP)	69’ 3”
Life on Earth (3.8 Billion BP)	70’ 9”
First Life on Land (400 Million BP)	96’ 11”
First Dinosaurs (220 Million BP)	98’ 4”
Disappearance of Dinosaurs (67 Million BP)	99’ 6”
First Ancestral Humans (24 Million BP)	99’ 11-3/4”
First Homo Sapiens (200,000 BP)	100’
Dawn of Agriculture (10,000 BP)	100’
Birth of Jesus Christ / Start of Modern Calendar (2,000 BP)	100’
Industrial Revolution (250 BP)	100’

Alternatively, you may draw an individual 4” x 6” card for each event and attach the cards to a length of twine at the given intervals.

Prepare for the PowerPoint presentation by running through the show yourself to get the feel for the preset timings built into the animations. Note that the timelines are color-coded to indicate changes in the scale of time shown. This feature is relevant to the discussion near the end of this lesson.

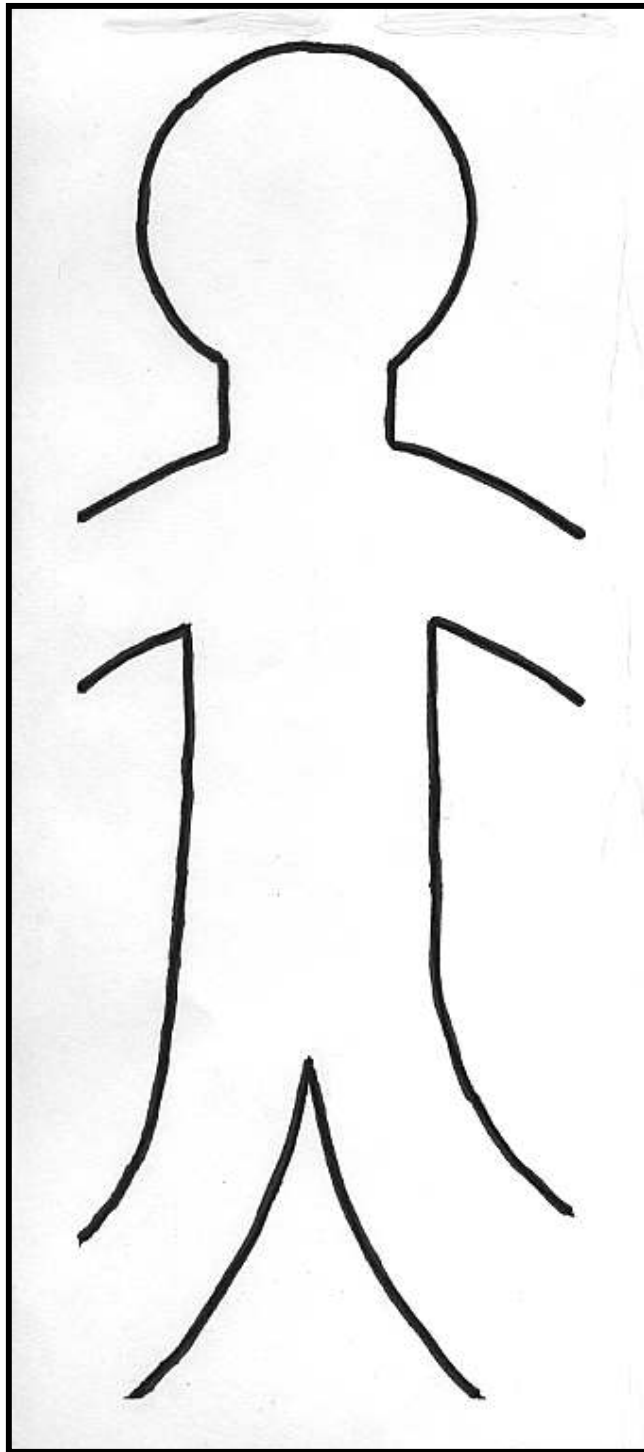
Pre-Activity: Doll Timeline

For homework or as a classroom activity, assign students the task of creating a panel of four dolls on heavy construction paper that will represent four generations within their family. See Student Handout 1.1. Using crayons, colored pencils, markers, and a variety of scrap materials (fabric, string, buttons, glitter, et cetera), ask students to dress the dolls in clothing appropriate to teens living during the past four generations. For consistency, establish that one generation = 25 years. The first doll on the panel represents the student herself/himself in contemporary dress, the

second the student's father or mother in dress from 25 years ago, and so on. Students will need to use online or other research materials to determine how members of their family may have dressed over the generations. Students may also want to refer to family pictures and recollections.

Lesson 1

Student Handout No. 1.1—Doll Template



Connect all doll panels together and post them around the walls of the classroom. The entire string of dolls creates a visual “timeline” of generations of humans going back hundreds or even thousands of years, depending on the number of students you teach. This timeline helps students better understand the huge time scale of Big Era One and can be used throughout the school year.

For example, the 180th doll on the timeline, located at 4,500 BP, represents a student ancestor who lived somewhere on earth at the time the Egyptian pyramids were built. Pointing out this fact makes a highly personal connection between students and the past. This activity also serves to introduce students to the concept of clothing as an important aspect of culture

Motivational Hook

Ask students: “What’s the oldest thing in this room?” Accept all answers. (Students may identify the teacher first!) Redirect the discussion to a wooden object in the room such as a table. Ask students: “How old is this object?” A common answer will be based on when students think the table was built. Ask: “What about the wood itself? How old is that?” Establish that the wood comes from a tree, which is much older than the table. Ask: “How old is the tree?” Establish that the tree may be hundreds of years old, and even then came from a seed that came from a tree that is older still. Continue the logic as far back as it can go, introducing the concept of “matter” as being the original building block of everything we see.

Complete the discussion by asking: “How old is the air?” to reinforce this concept. Note that part of the air (hydrogen and helium) is probably 13 billion years old, while other gases in the air (oxygen, nitrogen, et cetera) were created in stars and supernovae and range in age from 12 to 1 billion years. Taking as our premise that students’ bodies are made up of these atoms, the students too are billions of years old. Substantial parts of their bodies (most of its weight consisting of water, which is hydrogen and oxygen) are 13 billion years old!

Pre-assessment (for the whole unit)

To determine students’ level of understanding of human origins, have students answer three questions:

- How did the universe come to be?
- Where did our earth come from?
- How and when did humans appear on earth?

Teachers may determine whether the students may express their answers in the form of paragraphs, individual sentences, pictures, brainstorm lists and webs, or a combination of these.

These three questions are at the core of the PowerPoint Presentation and, thus, the unit itself. Student responses may be used by teachers to guide instruction. They also will be used for reference during assessment at the end of the Panorama Teaching Unit.

PowerPoint Presentation

Run the PowerPoint Presentation. Students should take notes identifying all important events and dates. Then have students draft a simple timeline that incorporates those important events and dates. At this stage, give students no explicit instructions on how to make a timeline!

“Playing with time”

Ask students: “How far back is the 200,000 years identified on your timeline as when *Homo sapiens* first appeared? Does this seem like a long time to you or not? How does it compare to an individual person’s lifetime?”

200,000 years is a long time...

Tell students: “Let’s experience just one minute. Close your eyes and stay quiet. I will tell you when one minute has gone by.” Afterward, discuss how one minute can feel like “a long time”.

Ask students: “How long do you think 200,000 minutes is?” Give the class fifteen seconds to jot down a gut estimate, which can be in terms of hours, days, weeks, months, or years. The answer is approximately six months. Two hundred thousand *is* a big number. That’s a lot of minutes!

Discuss with students how 200,000 years (the time since *Homo sapiens* appeared on earth) is to one year as six months is to one minute. (200,000 years : one year :: six months : one minute). From another perspective, if those 200,000 years were “squeezed” into one year, then the entire past year would only have started at 11:58 PM on December 31! Using the doll timeline created in the pre-activity, figure out how many human lifetimes it would take to go back 200,000 years? The answer is 8,000 lifetimes. Yes, that is a long time!

...or is it?

Walk students through the large space (hallway or yard, for example) that you identified earlier. Roll out the “Timeline of the Universe”. Stop as you reach each new event and ask students for reactions.

When you reach the end of the timeline, ask: “So now what do you think? Is 200,000 years a long time?” Discuss.

Read to students these two descriptions of time.

Suppose, O Monks – the Buddha once told his followers – there was a huge rock of one solid mass, one mile long, one mile wide, one mile high, without split or flaw. And at the end of every hundred years a man should come and rub against it once with a silken cloth. Then that huge rock would wear off and disappear quicker than a world-period (*kalpa*). But of such world-periods, O Monks, many have passed away, many hundreds, many thousands, many hundred thousands. (Nyanatiloka, *Buddhist Dictionary*, 3rd ed. [Taipei, 1970]).

‘In Farther Pommerania there is the diamond-mountain, one hour high, one hour wide, one hour deep. There every hundred years a little bird comes and whets its little beak on it. And when the whole mountain is ground off, then the first second of eternity has passed. (Brothers Grimm, quoted in Nyanatiloka, *Buddhist Dictionary*, 3rd ed. [Taipei, 1970]).

Assessment

Demonstrate to students how to construct a timeline. Use thirty seconds of class time as an example, *roughly* recording events (coughing, laughter, silence) as they occur at random intervals. Redraw the timeline *to scale*, establishing these principles in the process:

- arrows point to infinity
- earlier times to the left, later times to the right (usually)
- vertical marks identify specific points in time
- earlier or later *do not* imply cause and effect

Have students reconstruct two of the timelines from the PowerPoint presentation, using their notes to include all information contained:

- scale of Big Era One (the universe)
- scale of hominids

Each timeline should be drawn to scale, and the two timelines should be of identical length, say, twelve inches.

Have students compare their new timelines with the drafts they created immediately after the PowerPoint presentation. Discuss similarities and differences.

Discuss with students the concept of origins. If something did not exist at an earlier time (“point A”) but did exist at a later time (“point B”), it must have *originated* at some time between points A and B. Everything that exists today had a point of origin in the past!

For an associated writing activity, draw students’ attention to the different timeline scales used in the PowerPoint presentation, noting that the 200,000 year period encompassed by Big Eras Two through Nine becomes visible only viewed on the “scale of life after the dinosaurs.” Have students reflect on the following questions:

- In your view, is 200,000 years, the length of Big Eras Two through Nine and including all of human history, a long time? Use both timelines you created to lend perspective to your answer.
- How are the universe and our planet different today from the way they were 13 billion years ago? One billion years ago? Five hundred million years ago?

Lesson Two

Humans and Physical Evolution: What Makes Us Physically Human?

Motivational Hook

Ask students:

- “What makes us, as humans, physically different from all other living things on earth?”
- “Are we equally different from all other living things?”
- “If not, which living things are most similar to us? What makes us different from them?”

Small-Group Activity

Write the following list on the board. (You may wish to provide an image of each item to help younger students or English language learners with the activity.) Arrange in random order because this list is in “correct” order for answers you will later provide:

Rock
Tree
Worm
Fish
Kangaroo
Sloth
Chimp
Australopithecine
Homo erectus
Homo sapiens

Form small groups, and give each one a copy of Student Handout 2.1. Instruct the groups to fill in each space with one of the items from the list in order from “most unlike us” (at the left) to “most like us” (at the right). Then, have each group share its guesses with the class, describing the rationale for its choices.

Give each group a copy of Student Handout 2.2. Show them the list above in correct order. Say: “Each item listed on the sheet from top to bottom has a certain characteristic or characteristics that the items above it do not have but that all items below it do have.”

Instruct the groups to complete Student Handout 2.2 by:

- identifying the “distinguishing characteristic(s) of each item that make(s) it different from those above it on the list but similar to those below it.

- giving a “name” that describes the category into which that item belongs along with all those below it on the chart.

You may fill in the first two lines as examples:

- Trees (worms, fish, et cetera) are *alive*, but rocks are not. All items below rocks might be named “living things,” or “organisms.”
- Worms (fish, kangaroos, et cetera) *eat food* and *convert food into energy*, which trees and rocks do not. All items from worms to the end of the list might be labeled “animals”

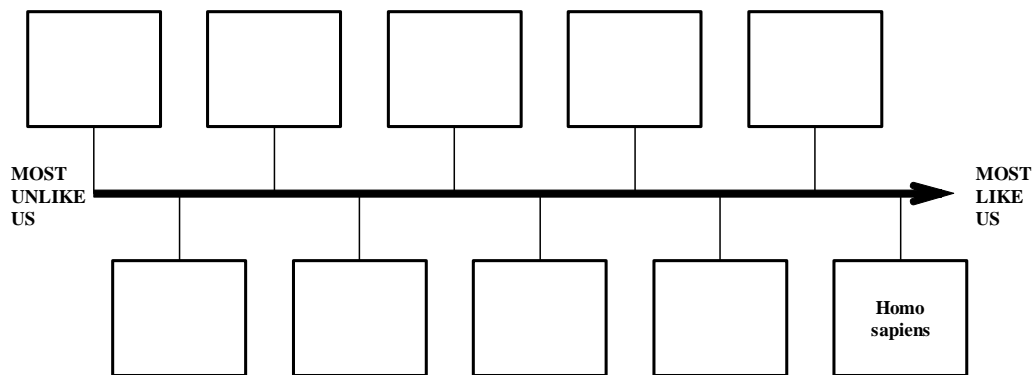
Have each group share its conclusions relating to one or two items on the chart.

Give a copy of Student Handout 2.3 to every student. Explain the categories of classification. Point out the relationship between the timeline and the evolutionary development of the distinguishing characteristics. (With more advanced students, you may wish to discuss how certain characteristics may be lost in the evolutionary process.) Clarify the explanation with questions such as:

- What characteristics do we share with other organisms, for example, with plants? (We are both alive.) With other mammals? (We are born live, nurse our young, have hair or fur, and have backbones. We also eat food and convert it into energy.)
- What ultimately distinguishes us from all other living organisms, and particularly from apes, our closest living relatives? (We walk upright and have large brains for our body size.)

Lesson 2

Student Handout No. 2.1—Most Unlike/Like Us



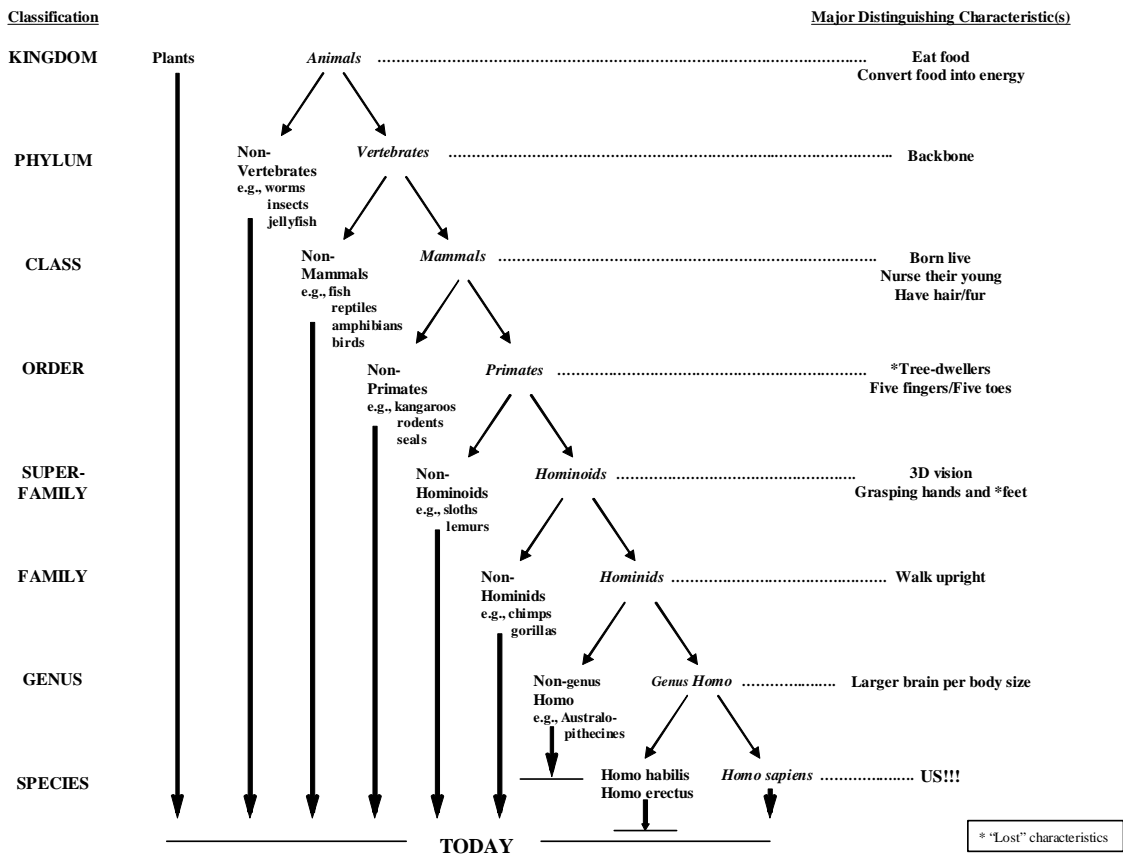
Lesson 2

Student Handout 2.2—Most Unlike/Like Us

MOST UNLIKE US	DISTINGUISHING CHARACTERISTIC(S)	"NAME" OF GROUP
Rock	XXXXXXXXXXXXXXXXXXXX	<u>NON-LIVING THINGS</u>
Tree		↓
Worm		↓
Fish		↓
Kangaroo		↓
Sloth		↓
Chimpanzee		↓
Australopithecine		↓
<i>Homo erectus</i>		↓
<i>Homo sapiens</i>		US

Lesson 2

Student Handout 2.3—Most Unlike/Like Us



Lesson Three

Humans and Cultural Evolution: What Makes Us Culturally Human?

Motivational Hook

Focus student attention on the last image of the PowerPoint presentation, which shows a group of modern *Homo sapiens*, that is, a group of students! Say: “By about 200,000 years ago, *Homo sapiens*, our species, had appeared on the earth. These early *Homo sapiens* were *physically* almost identical to us. Yet as far as we know, they did not create any artistic works or have any religious practices. Some people would say that they were modern humans, but others would say they were not. What do *you* think? How would you decide? What criteria would you use to determine whether or not they were modern humans?” Engage the class in a short discussion.

What is Culture? Small-group or whole-class activity

Say: “All groups of people have behaviors, activities, and beliefs that they pass on from generation to generation. These constitute the elements of *culture*. Certain categories of behaviors, activities, and beliefs are part of the cultural lives of *all* groups. How these categories are expressed, however, varies from group to group. For example, all peoples eat foods, but different groups eat different foods and may practice different customs connected to eating. Those common categories of activities, behaviors, and beliefs are what we call “cultural universals.”

Establish with the class what different categories may constitute cultural universals. For younger students, an excellent resource to read together is Peter Speier’s book *People*. The book identifies categories such as:

- Food
- Clothing
- Shelter
- Economics (work, trade, transportation)
- Politics (power)
- Religion and philosophy
- Family and society (including social hierarchies)
- Communications (including language)
- Art, literature, and architecture
- Recreation

For higher grade levels, small groups should work to develop similar categories. The class as a whole shares each group’s work and comes to consensus on categories to use.

Do Animals Have Cultures? Worksheet-based activity

Say: “We can see that humans have culture. But do animals have culture as well? Besides the physical differences we identified in the last lesson, what *cultural* characteristics make us unique in the animal kingdom?”

Pass out the appropriate version of Student Handouts 3.1 and 3.2 to each group. For younger students, or to save time, use Student Handout 3.1, which includes pre-written questions related to several cultural universals. (These questions will be used in the next section to distinguish modern humans culturally from other species, both ancestral humans and non-humans.) With more time or older students use Student Handout 3.2. Groups will use this handout to identify questions related to cultural universals that serve as criteria for distinguishing what makes modern humans unique as possessors of culture. Use Student Handout 3.1 and the Answer Key provided as guides to help lead this effort.

In whole-class discussion, fill in the columns for “dogs” and “modern humans” on Student Handout 3.1 or 3.2. (Dogs are used as a comparison group for two reasons: they represent a non-human species, and they are a species with which students are familiar.). Small groups then do research in order to complete the columns for “chimps” and “*Homo erectus*” on either of the Student Handouts.

After completing the worksheet, groups identify those cultural characteristics that distinguish modern humans from other species. From among those distinguishing characteristics, students choose the one they consider the most “fundamentally human”, specifying the rationale they use to make their choice.

As a whole class, discuss each group’s conclusions. Focus on the rationale each group used. Ask: “What if your rationale were: Choose the characteristic that would have had to come first in order for the others to arise.” Establish (symbolic) language as the essential human ability that most logically must have arisen before others (religion, art, et cetera) could have developed. (This activity acts as a bridge into Big Era Two.)

Lesson 3***Student Handout 3.1—Cultural Universals***

Cultural Universal	Questions	Dogs	Chimps	<i>Homo Erectus</i>	<i>Homo Sapiens (Modern Humans)</i>	Unique To <i>Homo Sapiens</i>?
Economics/ Technology	Do they use tools?					
	Do they make tools?					
Food	Do they prepare their food before eating it?					
Clothing	Do they wear clothes?					
Shelter	Do they build shelters?					
Politics	Do they have leaders?					
	Do they compete for leadership?					
Religion	Do they have beliefs about the “unknown”?					
	Do they have rituals associated with their					
Family/Society	Do they live in communities?					
Communications	Do they communicate?					
	Do they use spoken languages?					
Arts	Do they express their values and ideas					
Recreation	Do they play games?					
Personal	Do they feel fear?					
	Do they feel lonely?					
	Do they have emotions?					
Overall	Do they learn from each other?					
	Do they pass on knowledge to young?					

Lesson 3***Student Handout 3.2—Cultural Universals***

Cultural Universal	Dogs	Chimps	<i>Homo Erectus</i>	<i>Homo Sapiens</i> (Modern Humans)	Unique To <i>Homo Sapiens</i>?
Economics/ Technology					
Clothing					
Shelter					
Politics					
Religion					
Family/Society					
Communi- cations					
Arts					
Recreation					
Personal					
Overall					

Answer Key

For Student Handouts 1 and 2

The overall purpose of this activity is to demonstrate that an evolutionary “progression” (not to be confused with “progress”) towards collective learning has occurred. Humans are the only species capable of highly sophisticated patterns of teaching and learning from each other over large scales of time and space. Those endeavors unique to *homo sapiens* have always been dependent on this process of collective learning.

Economics/Technology

Do they use tools?

Dogs: no evidence

Chimps: yes (e.g., use twigs to extract termites from mounds)

Homo erectus: yes

Homo sapiens: yes

Do they make tools?

Dogs: no evidence

Chimps: yes (e.g., modify twigs for termite extraction)

Homo erectus: yes

Homo sapiens: yes

Food

Do they prepare their food before eating it?

Dogs: no evidence

Chimps: may use tools to crack open nuts but no evidence of modifying food before eating

Homo erectus: evidence supports slicing, cooking, et cetera

Homo sapiens: cooking, et cetera

Clothing

Do they wear clothes?

Dogs: no evidence (unless humans help them!)

Chimps: no evidence

Homo erectus: indirect evidence of tools that could be used to cut and scrape hides

Homo sapiens: yes

Shelter

Do they build shelters?

Dogs: no evidence

Chimps: build sleeping nests
Homo erectus: evidence of simple shelters
Homo sapiens: yes

Politics

Do they have leaders?

Dogs: yes
Chimps: yes
Homo erectus: yes (inferential evidence)
Homo sapiens: yes

Do individuals compete for leadership?

Dogs: yes
Chimps: yes
Homo erectus: yes (inferential evidence)
Homo sapiens: yes

Religion

Do they have beliefs about “the unknown”?

Dogs: no evidence
Chimps: no evidence
Homo erectus: sketchy evidence
Homo sapiens: yes

Do they have rituals associated with their beliefs?

Dogs: no evidence
Chimps: no evidence
Homo erectus: sketchy evidence
Homo sapiens: yes

Family/Society

Do they live in communities?

Dogs: yes
Chimps: yes
Homo erectus: yes
Homo sapiens: yes

Communications

Do they communicate?

Dogs: yes

Chimps: yes

Homo erectus: yes

Homo sapiens: yes

Do they use spoken languages?

Dogs: no evidence

Chimps: no evidence

Homo erectus: no clear evidence

Homo sapiens: yes

Art

Do they express their values and ideas through art?

Dogs: no evidence

Chimps: no evidence

Homo erectus: no evidence

Homo sapiens: yes

Recreation

Do they play games?

Dogs: yes, but no evidence of “rules”

Chimps: yes, with evidence of simple “rules”

Homo erectus: yes (inferential evidence)

Homo sapiens: yes, with highly complex rules

Personal

Do they feel fear?

Dogs: yes

Chimps: yes

Homo erectus: yes (inferential evidence)

Homo sapiens: yes

Do they feel lonely?

Dogs: yes

Chimps: yes

Homo erectus: yes (inferential evidence)

Homo sapiens: yes

Do they have emotions?

Dogs: yes

Chimps: yes

Homo erectus: yes (inferential evidence)

Homo sapiens: yes

Overall

Do they teach and learn from each other?

Dogs: no evidence

Chimps: yes

Homo erectus: yes (inferential evidence)

Homo sapiens: yes

Do they pass knowledge on to their young?

Dogs: no evidence

Chimps: no evidence

Homo erectus: no evidence

Homo sapiens: yes

Final Assessment

As a culminating activity, have students reflect upon their responses to the pre-assessment. In writing, art, or other form, have them respond to these questions:

- What did you learn while doing this unit?
- Which of your views about human origins remain the same?
- Have any of your views changed? If so, how have they changed?

This Unit and the Standards in Historical Thinking

Historical Thinking Standard 1: Chronological Thinking

The student is able to (E) interpret data presented in time lines and create time lines by designating appropriate equidistant intervals of time and recording events according to the temporal order in which they occurred.

Historical Thinking Standard 2: Historical Comprehension

The student is able to (H) utilize visual, mathematical, and quantitative data presented in charts, tables, pie and bar graphs, flow charts, Venn diagrams, and other graphic organizers to clarify, illustrate, or elaborate upon information presented in the historical narrative.

Historical Thinking Standard 3: Historical Analysis and Interpretation

The student is able to (D) draw comparisons across eras and regions in order to define enduring issues as well as large-scale or long-term developments that transcend regional and temporal boundaries.

Historical Thinking Standard 4: Historical Research Capabilities

The student is able to (D) identify the gaps in the available records and marshal contextual knowledge and perspectives of the time and place in order to elaborate imaginatively upon the evidence, fill in the gaps deductively, and construct a sound historical interpretation.

Historical Thinking Standard 5: Historical Issues-Analysis and Decision-Making

The student is able to (C) identify relevant historical antecedents and differentiate from those that are inappropriate and irrelevant to contemporary issues.

Resources

Instructional resources for teachers

- Boyd, Robert and Joan B. Silk. *How Humans Evolved*. New York: W.W. Norton, 2nd ed, 2000.
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- Christian, David. *Maps of Time: An Introduction to Big History*. Berkeley: University of California Press, 2004.
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- Croswell, Ken. *The Alchemy of the Heavens*. New York: Oxford University Press, 1996. On the life and death of stars.
- Davies, Paul. *The Fifth Miracle: The Search for the Origin of Life*. New York: Penguin, 1999. Very good discussion of the Origins of Life.
- Delsemme, Armand. *Our Cosmic Origins: From the Big Bang to the Emergence of Life and Intelligence*. Cambridge: Cambridge University Press, 1998. One book that covers almost all of Big Era 1.
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- Ferris, T. *Coming of Age in the Milky Way*. New York: William Morrow, 1988; and *The Whole Shebang: A State of the Universe(s) Report*. New York: Simon & Shuster, 1997. On cosmology.
- Flannery, Tim. *The Future Eaters: An Ecological History of the Australasian Lands and Peoples*. New York: G. Braziller, 1995; and *The Eternal Frontier: An Ecological History of North America and its Peoples*. New York: Atlantic Monthly, 2001. Superb and readable, accounts of the history of two important regions of the earth over the last fifty million years.
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- Gowlett, John. *Ascent to Civilization: The Archaeology of Early Man*. New York: Alfred A. Knopf, 1984.

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Instructional resources for students

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Correlations to National and State Standards and to Textbooks

National Standards for World History

Era One: The Beginnings of Human Society, 1A: The student understands early hominid development in Africa.

California: History-Social Science Content Standards

Grade Six, 6.1: Students describe what is known through archaeological studies of the early physical and cultural development of humankind from the Paleolithic era to the agricultural revolution.

New York: Social Studies Resource Guide with Core Curriculum

Unit One: Ancient World – Civilizations and Religions (4000 BC – 500 AD), A. Early peoples, 1. Human and Physical Geography.

Virginia Standards of Learning

World History and Geography to 1500 AD. Era 1: Human Origins and Early Civilizations, Prehistory to 1000 B.C. WHI.2: The student will demonstrate knowledge of early development of humankind from the Paleolithic Era to the agricultural revolution.