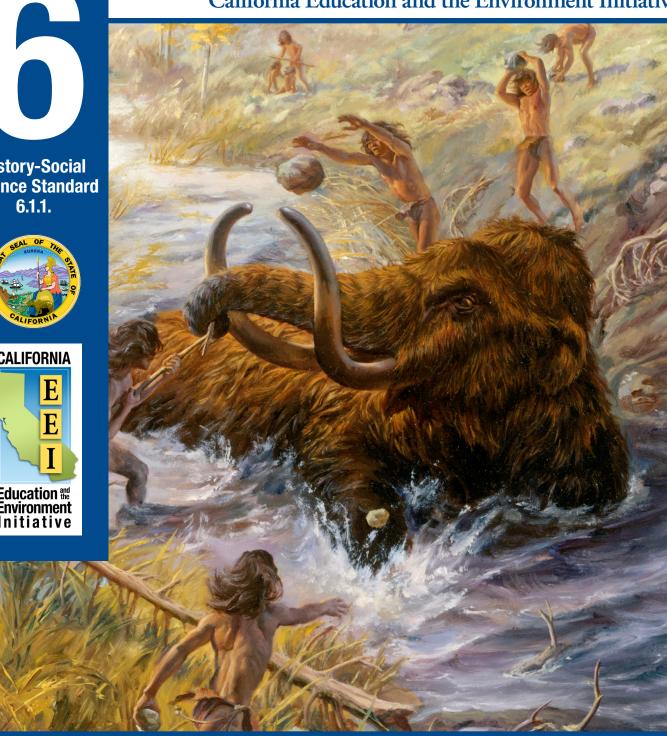
# Student Workbook California Education and the Environment Initiative









# Paleolithic People: Tools, Tasks, and Fire

## **California Education and the Environment Initiative**

Approved by the California State Board of Education, 2010

### The Education and the Environment Curriculum is a cooperative endeavor of the following entities:

California Environmental Protection Agency California Natural Resources Agency Office of the Secretary of Education California State Board of Education California Department of Education California Integrated Waste Management Board

### Key Leadership for the Education and Environment Initiative:

Linda Adams, Secretary, California Environmental Protection Agency Patty Zwarts, Deputy Secretary for Policy and Legislation, California Environmental Protection Agency Andrea Lewis, Assistant Secretary for Education and Quality Programs, California Environmental Protection Agency Mark Leary, Executive Director, California Integrated Waste Management Board Mindy Fox, Director, Office of Education and the Environment, California Integrated Waste Management Board

### **Key Partners:**

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# Lesson 1 Hunting and Gathering

Focus on	Fishing	 	 	 	 	 	 	 2

Lesson 2	Life in Paleolithic Times	
Paleolithic Ever	nts Timeline	
Comparing and	d Contrasting Cultures	

# Lesson 3 Investigating Implements

Important Implements	
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# Lesson 4 Fabulous Fire

# Lesson 5 Mastodons and Modern Times

Influencing Natural Systems. 10

**Instructions:** After reading *California Connections: Gathering Resources from the Sea,* answer the following questions.

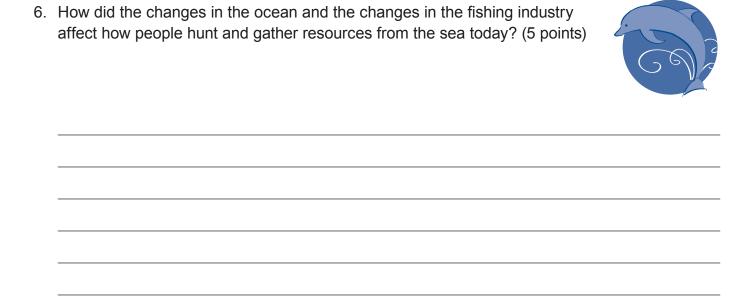
- 1. Who were the earliest people to harvest, or fish, off the coast of San Diego? (1 point)
- 2. Who was fishing off the coast of California by the 1920s? (1 point)
- 3. What happened to the ocean ecosystem after World War II? (Hint, think small, silver fish) (2 points)

4. Describe how fishing for tuna changed between 1920 and 1970? (5 points)



5. How did the changes in tuna fishing change the ocean ecosystem? (2 points)





Key: MYA = million years ago, BCE = before the common era, CE = common era

Geological (Earth) Events	Anthropological (Human) Events		
	<b>2.5 MYA</b> – The Paleolithic period begins. <i>Homo habilis</i> , living in eastern Africa, make the first stone tools.		
<b>1.8 MYA</b> – The Pleistocene epoch begins.	<b>1.7 MYA–420,000 BCE</b> – Several migrations of early humans out of Africa to Asia and Europe took place over this period ( <i>Homo erectus</i> ).		
<b>450,000 BCE–200,000 BCE</b> – During several warm periods at least two massive floods and rising sea levels cut the British Isles off from the European continent.	<b>300,000–125,000 BCE</b> – <i>Homo</i> <i>neanderthalensis</i> migrate all across Europe, the Middle East, and western and central Asia, but not into present-day Britain.		
<b>186,000 BCE</b> – The polar ice advances about this time.			
<b>125,000 BCE–90,000 BCE</b> – A long period of warming takes place. Severe droughts affect areas of eastern Africa over this period.	<b>150,000 BCE–80,000 BCE</b> – A large migration of humans ( <i>Homo sapiens</i> ) from Africa to the Middle East, Asia, and Europe took place over this period. They meet Neanderthal peoples already living in these areas.		
<b>74,000 BCE</b> – A major volcanic eruption occurs in Sumatra, causing global temperatures to drop;			
an ice age follows.	<b>70,000 BCE</b> – Human population shrinks– possibly below 2,000–in eastern Africa.		
	<b>65,000 BCE</b> – <i>Homo sapiens</i> continue to migrate out of Africa and settle along the coast of the Indian subcontinent and Southeast Asia.		
	<b>60,000 BCE</b> – Humans are living on the British Isles.		
<b>48,000 BCE–44,000 BCE</b> – In Australia, about 85% of the land-dwelling animals over 100 pounds go extinct. Some 55 species die off including the 230-pound flightless "thunder bird" called <i>Genyornis</i> .	<b>53,000 BCE–50,000 BCE</b> – Humans migrate to Australia. It is believed that they came in boats from Indonesia and southern China.		

Geological (Earth) Events	Anthropological (Human) Events		
<b>43,000 BCE</b> – Two different species of mammoth go extinct about this time.	<b>40,000 BCE</b> – The earliest evidence of humans using personal ornaments (jewelry) appears about this time.		
	<b>38,000 BCE</b> – Humans migrate to Europe from central Asia and the Middle East, in two waves that began about this time.		
	<b>35,000 BCE</b> – The Late Paleolithic period begins. Humans create symbols of themselves and the animals around them (art) and record time.		
<b>30,000 BCE</b> – The last major glacial period in the Pleistocene begins and lasts almost 10,000 years.	<b>31,000 BCE</b> – Humans are making regular trips to the islands in Southeast Asia. Humans are living in South America (present-day Chile).		
	<b>28,000 BCE</b> – Humans are living in Siberia, 300 miles north of the Arctic Circle.		
	<b>22,000 BCE–18,000 BCE</b> – People cross the Atlantic from the Iberian peninsula and settle in eastern North America.		
<b>18,000 BCE</b> – Glaciation during the last Ice Age reaches its maximum. A mile-high glacier covers the area of present-day Connecticut; on present-day Manhattan Island, the ice is a half-mile thick. Ice covers most of North America and northern Europe. In the Southern Hemisphere, there is ice in Australia, New Zealand, and southern South America. Sea levels fall by 350 feet.	<b>19,000 BCE-16,000 BCE</b> – Humans are living in the areas of present-day Pennsylvania, Virginia, and South Carolina on the East Coast of North America.		
<b>16,000 BCE</b> – The glaciers in North America from present-day New Jersey to present-day Seattle begin to recede.	<b>16,000 BCE</b> – Humans cross the Bering Land Bridge for the first time, and move south.		

# Geological (Earth) Events

**15,000 BCE** – The coast of present-day San Francisco extends out six miles past the Farallon Islands. The northern Channel Islands off present-day Santa Barbara are connected with one another, but not with mainland of present-day California.

**12,000 BCE–11,000 BCE** – Glacial melting raises the sea levels 300 feet, flooding the lands between present-day Alaska and Siberia, putting the land bridge under the Bering Sea. Earth warms and temperate forests appear.

**11,000 BCE** – Wildfires break out across the present-day United States and Canada after an extraterrestrial object, roughly a kilometer across, grazes Earth.

**10,900 BCE** – A mass extinction of large animals occurs in present-day North America, including the mastodon, the mammoth, and the saber-toothed cat.

**10,700 BCE** – Melting glaciers in present-day northeastern Canada put 2,000 cubic miles of fresh water in the Atlantic. The temperature of the water in the North Atlantic drops, and as a result, the temperatures in Greenland drop by 18° F.

**10,500 BCE** – The climate of Earth abruptly warms by another 20° F or more. The ice all over the world melts down rapidly.

**8,000 BCE** – The Holocene epoch begins.

# Anthropological (Human) Events

**15,000 BCE** – Humans are now living on every continent except Antarctica.

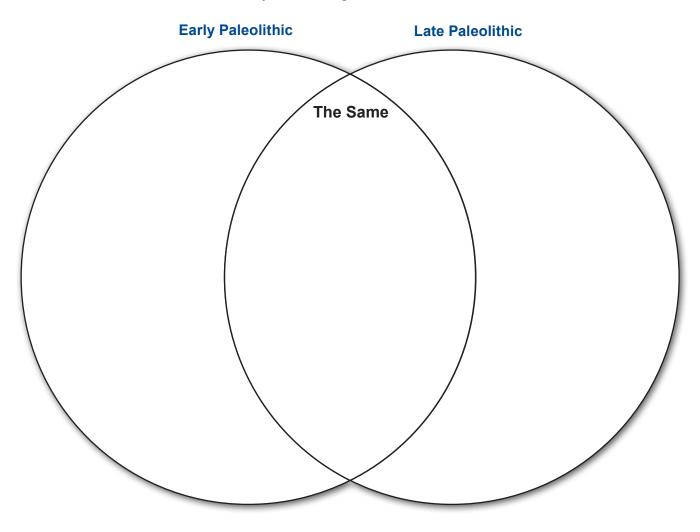
**13,000 BCE** – Another migration of humans occurs from present-day Siberia, over the Bering Land Bridge, and then southward into the Americas.

**12,000 BCE–10,000 BCE** – Humans are living in the midwestern part of North America, possibly the descendants of ice age hunters who populated the eastern coast of North America then migrated west.

**9,000 BCE** – The Neolithic period, or New Stone Age, begins. Humans begin to practice agriculture. The world's human population reaches 5 million at this time.

**Instructions:** Look at this diagram before reading the two stories about Paleolithic people. While you read the stories, fill in the diagram with information that answers these questions:

- How did Early and Late Paleolithic people meet their needs?
- What helped them get shelter, food, water, and stay warm?
- What natural resources did they hunt and gather?



In your opinion, what was the biggest difference between life in the Late Paleolithic and life in the Early Paleolithic? Why? (10 points)

**Instructions:** You have learned about some popular tools made by people during the Paleolithic period, and what they were used for. Do you think all of these tools were equally important to people living during that time, or were some tools more important than others?

Fill in the chart below by ranking the nine tools you learned about in order of how important you think they were to the people in Paleolithic times. You may write more than one tool in a space, if you think both are equally important. When you are done, read and answer the question below.

# Most important tools:



Why did you choose the tool you did to be the most important? Why did you choose the tool you did to be the least important? Explain your choices. (10 points)

**Instructions:** The inventions below are connected to something humans in the Paleolithic period learned about. Think about how Paleolithic people may have "discovered" these tools (or something very similar) almost a million years ago, and write about how that might have happened. (5 points each)

Modern Day Tool	Use	How Paleolithic people may have "discovered" it
Refrigerator	To keep food cold so that is does not decay or spoil.	
Pencil	To write or draw on surfaces; to communicate.	

**Instructions:** Think about the two animals you studied in class—the mastodon and the tuna. What do you think caused the population decline of each species? Could human practices have caused the decline? Explain your thinking in the space below.



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