Solar cycles have guided human civilization from the development of agriculture to the massive famines in Europe in the 1300s when sunspot activity helped cause the Little Ice Age. This episode looks at the centrality of the sun to human existence, exploring the ways various cultures have worshipped the sun and how humans have counted on its heat to stay alive. From sundials to the modern calendar, humans have used the sun to track time. Viewers learn about the culture of the Aztecs, the ancient Roman roots of the modern calendar, and the role of satellites in monitoring the sun. A Big History view of the sun shows how and why it literally runs our world.

**Curriculum Links**

H2’s *Big History* series is a great fit with a range of courses and units on history, science and technology, social studies and global studies. It is most appropriate for high school students but is suitable for middle school students as well. The series can be used as a companion to the Big History Project online course and curriculum. (Visit [www.bighistoryproject.com](http://www.bighistoryproject.com) to learn more.)

**Identification Terms**

The terms below are used in this episode; defining them will help students understand some of the concepts explored in this series. Using a dictionary or another resource, students can find definitions for these terms before or after watching the episode. As they are watching, students can also keep a list of terms from each episode in the *Big History* series to define.

- coalesce
- divine
- equilibrium
- iconography
- infrared
- obelisk
- rogue
- jettison
- sage
- ultraviolet
- veneration

**Discussion Questions**

1. How was the sun created?
2. Why is the sun ideal for our solar system? What would happen if another star, such as Betelgeuse, was at the center of our solar system instead of the sun?
3. What role did the sun play in Aztec culture?
4. Why was the sun so important to early farmers? What are some of the ways early societies used the sun to mark the passing of time?
5. What is an obelisk and why were they important in ancient Egypt?
6. What are circadian rhythms and why are they important for humans? How are they affected by lightness and darkness?
7. What are some of the ways human vision differs from that of other mammals?
Extended Activities

1. **The Sun is Born.** The creation of the sun is explored in this episode. Based on what you learned and your own research, write a short essay about how the sun was formed.

2. **Marking Time.** From the earliest sundials to today’s modern calendar, the sun has always been used as a way of marking time. Choose one example of the use of the sun as a time marker from this episode or your own research and describe the historical context in a short essay or visual presentation.

3. **Egypt’s Obelisks.** Scholars believe that the ancient Egyptians created obelisks as dedications to sun gods. Research obelisks and create a drawing or other visual presentation depicting an obelisk, with a short written explanation of its role in ancient Egyptian culture.

4. **A World Without the Sun.** Imagine the sun disappeared tomorrow. What would happen to Earth? Based on a group discussion and what you learned from this episode, describe how and why life on Earth is depended on the sun.

Reflections After Watching

What were the three most interesting things you learned from watching this episode of *Big History*?

**Web Links**

Learn more about the Aztecs:
www.history.com/topics/aztecs

Short clip about Egyptian obelisks:
www.history.com/videos/engineering-an-empire-egypt---erecting-an-egyptian-obelisk

Big History Project:
www.bighistoryproject.com

**Related Reading**

**NOTE:** These books are recommended for educators and advanced student readers who may want to read selections from these books to further their understanding of the topics explored in this episode.

