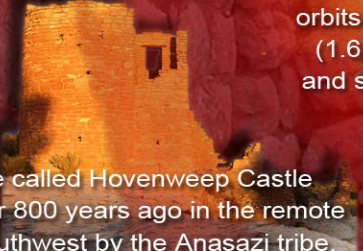




Find the Differences Activity

The next pages contain two versions of our Ancient Observatory poster. The first one is a copy of the original. The second one has 10 things that have been slightly changed (little things have been added, removed or just changed). If you are ready to accept the challenge, print both of the files out and see if you can find the changes. You might want to circle them to remember where they are. (Teachers: this can be done in teams of two.) These are both PDF files that can be printed with good detail even on ink jet printers. (The third page explains what the various images represent and can be printed for informational purposes.)


When you are done, the answer key is **HERE**.




This structure called Hovenweep Castle was built over 800 years ago in the remote American Southwest by the Anasazi tribe. Some of its windows suggest that it was partly used for observing the Sun and the seasons.




This American Indian rock drawing by the Chumach tribe of California as well as other artwork discovered suggests some astronomical and solar understandings.




The huge, famous stones of Stonehenge were arranged in a circle and expanded upon over 1,500 years in England, beginning back at about 3000 BC. It seems to have been aligned with the position of the rising Sun at the beginning of summer. Much is not understood of its purpose.



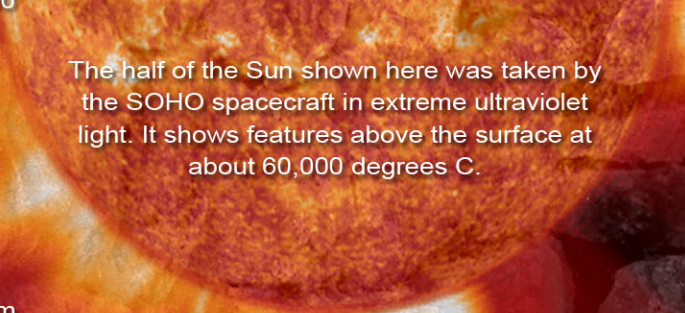
Astronauts are vulnerable to radiation from solar storms. NASA is working to gain a better understanding of the Sun and how to predict these storms.




A drawing of the SOHO spacecraft that studies the Sun from space. Launched in 1995, it orbits the Sun from a position one million miles (1.6 million km) towards the Sun from Earth and sends back data and hundreds of images every day.




This is part of the famed Mexican calendar stone, many hundreds of years old. It featured the Sun in its center and the Sun played a large part in Mexican culture.




The half of the Sun shown here was taken by the SOHO spacecraft in extreme ultraviolet light. It shows features above the surface at about 60,000 degrees C.




This is an old metallic representation of the Sun. The Sun played a large role in the lives of many cultures and this is reflected in their art.



This pyramid-like structure is called Chichen Itza in the Yucatan peninsula in Central America. Built almost 1,000 years ago, its orientation shows us its Mayan builders clearly had a solid understanding of the Sun and the seasonal changes of its position.



This is a Sun carved into rock found near Chaco Canyon, New Mexico. Many of the rock buildings there were aligned with the positions of the Sun. The structures seem to have served some ceremonial purposes.



The Sun, called Ra, was worshipped by the Egyptians and central to their culture. The drawing here shows the Sun's rays

Since the beginning of history, man has observed and tried to understand the movements of the sun, the moon and the stars. Around the world we have evidence of their efforts and continue to build on what they learned.



Ancient Observatories

Timeless Knowledge



(Changed version)

Since the beginning of history, man has observed and tried to understand the movements of the sun, the moon and the stars. Around the world we have evidence of their efforts and continue to build on what they learned.

Sun-Earth Day • March 20, 2005 • <http://sunearthday.gsfc.nasa.gov>

