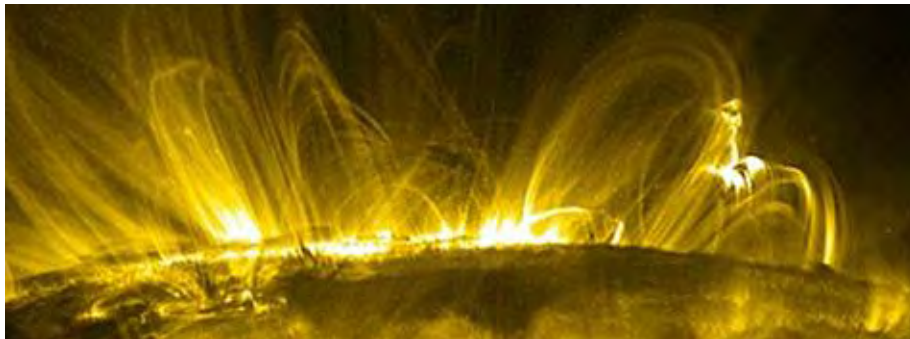


# The Sun's Atmosphere

The Sun's *corona* (Latin for "crown") is the outermost part of its atmosphere. It is a jacket of extremely hot gases that reaches far into space. The magnetic energy and heat on the surface of the Sun makes it an incredibly active place. From the corona comes the solar wind that travels through our solar system.



Coronal loops on the Sun's surface. *Image: NASA/TRACE.*

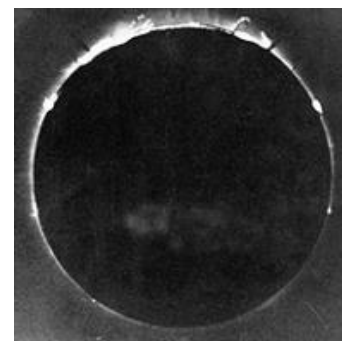
We usually cannot see the Sun's corona because it is hidden by the bright light of the Sun's surface. However, the corona can be seen during a total solar eclipse, when the Moon casts a shadow on Earth and blocks the Sun's light. For hundreds of years, astronomers have sketched what they observed during solar eclipses. The first photographs of eclipses were taken around 1860.



*Image: NASA.*



Left: Sketch of 1860 total solar eclipse showing a coronal mass ejection. *Image: G. Temple/NASA.*



Right: First photograph of a solar eclipse, in 1860. *Image: C. Young/NASA.*

Today, scientists use special telescopes to observe the corona. They are studying why the corona is so hot, how features such as coronal streamers and loops are formed, and how the corona interacts with the Sun's magnetic fields.

**Discover more about the Sun's corona:**

[spaceplace.nasa.gov/sun-corona/en/](https://spaceplace.nasa.gov/sun-corona/en/)

# Eclipse Chalk Art

Create chalk art and discover the Sun's corona!



## Materials Needed:

Cardstock or thin cardboard, black construction paper, chalk, scissors, pencil, round object for tracing.

*Optional:* Tissues.

## Instructions:

**Step 1:** Trace and cut out a cardstock or thin cardboard circle, about 4 inches (10 cm) in diameter.



**Step 2:** Color the circle heavily with chalk. Make thick lines with lots of chalk. If available, use multiple colors such as white, yellow, and orange.

**Step 3:** Place the circle in the center of the black paper, chalk side up.

**Step 4:** With your fingers or a tissue, smudge the chalk from the circle outward on the black paper to create rays all around the Sun. And more chalk if needed.

*Hint:* Help your child by holding the circle in place so it doesn't move around.

**Step 5:** Remove the circle to reveal the solar eclipse!



**During an eclipse, the Sun's corona ("crown"), the outermost part of its atmosphere, is visible!**

[Activity adapted from NASA Eclipse Activity Guide.](#)