

Straw Painting the Sun

The Dynamic Sun

The Sun (also called Sol) is the star at the center of our Solar System. The Sun's surface is very active and always changing.

The Sun is made of gases that are always moving. This movement makes the surface of the Sun a very active. Other times, things are a bit quieter. Scientists on Earth monitor how quiet or active the Sun is.

Left: Eruption of the Sun (the flash of light on the right) in 2017.

There are areas of intense magnetic activity, called sunspots. They appear dark because they are cooler than other parts of the Sun. Sunspots are around 6,500 degrees Fahrenheit (3,600 degrees Celsius)! The number of sunspots increase and decrease in an 11-year solar cycle.

Right: Large sunspot in 2014. Image: NASA/SDO.

Solar flares are sudden explosions of energy on the Sun. They can cause coronal mass ejections, which send out huge amount of energy into space. When the Sun is very active, we sometimes see the aurora around the North and South Poles of the Earth, because the energy from the Sun interacts with the magnetic energy of the Earth.

Solar wind interacting with Earth's magnetic field. Image: SOHO (NASA & ESA).

Space weather can disrupt satellites and the work of astronauts.

Discover more about the energetic Sun:

spaceplace.nasa.gov/solar-activity/en/

