The Sun Heats Up

A solar flare blasts away from the sun

From Earth, our sun looks like a round yellow ball in the sky. The sun looks as if it never changes. But it is really a boiling, seething ball of gas that's always changing.

When the sun is active, dark spots, or *sunspots*, dot its surface. And huge streams of gas, called *flares*, explode from the surface.

Sunspots and flares can happen at any time, but they are more common when the sun is active. For the rest of this year and next year, the sun will be extra active, scientists say.



The bright areas in this photo show flares erupting from the sun.

Meet the Sun

The sun is the hottest object in our solar system. Our sun has been making heat and light since it formed 4.5 billion years ago. It does that by changing hydrogen into another element, helium.

Heat from the center of the sun slowly bubbles to the surface. The sun's surface looks like a rapidly boiling pot of water. The temperature at the surface is about 7,000 degrees Fahrenheit.

Streams of gas, called flares, can explode from the sun's surface. Those streams of gas soar through space and sometimes collide with Earth's atmosphere.

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Sunspots are storms on the sun. They look dark because they are cooler than the surrounding surface. Each sunspot, however, is very hot--about 5,000 degrees Fahrenheit.

When gases from the sun reach Earth's atmosphere, they cause the atmosphere to glow. The glowing lights are called an *aurora*. Auroras are usually seen when the sun is active.

'Zat a Fact?

The sun is nearly 1,000,000 miles across. Jupiter is almost 89,000 miles across. Earth is almost 8,000 miles across.

Hot Facts

The sun is about 93 million miles from Earth.

It takes a beam of light eight minutes to travel from the surface of the sun to Earth.

A car traveling at 55 miles an hour would take 193 years to travel from Earth to the sun.