

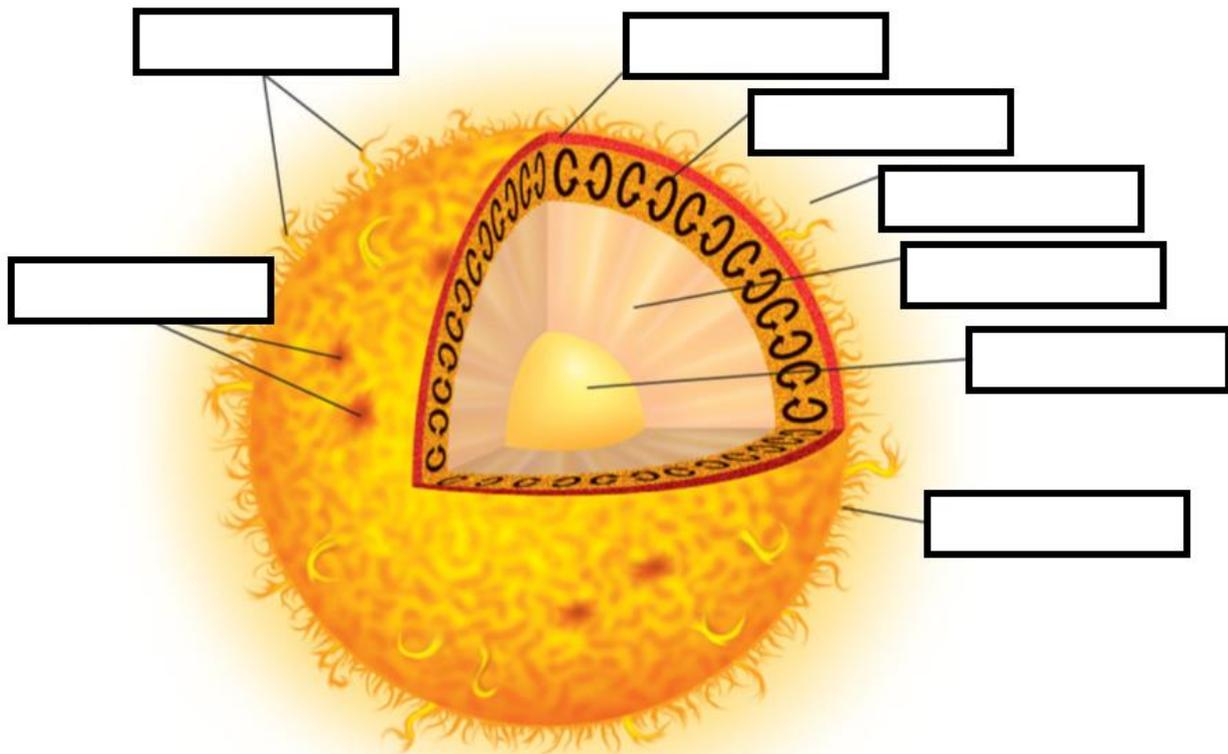
The Sun

Our sun is a _____-sized star, and is the _____ of the solar system. It formed inside a _____ and began shining approximately _____ years ago. Our Sun may continue to shine for another _____ years.

The sun emits energy in the form of _____, _____ and other types of radiation including _____ radiation.

The Sun is composed mainly of _____ and _____, and produces energy through the process of _____ at its core.

The Sun has _____ layers. Starting from the centre and moving outwards, the layers are: the _____, the _____ zone, the _____ zone, the _____, the _____ and the _____.



core
photosphere

corona
radiative zone

convective zone
solar flares

chromosphere
sunspots

The Layers of the Sun

The Core

The _____ layer of the Sun and the site of _____ fusion. The core is an area of very high _____ where temperatures can reach _____ °C.

The Radiative Zone

Surrounds the _____ and extends three quarters of the way to the _____. _____ and _____ emitted from the core move through this layer. Light takes at least _____ to travel from the core through the radiative zone.

The Convective Zone

Outside the _____ zone. _____ circulate here and bubble towards the surface, carrying _____.

The Photosphere

Considered the _____ between the inside and outside of the Sun. This is the part that we see from _____ and gives the sun its _____ colour. The lowest temperatures at this layer are _____ °C.

The Chromosphere

The _____ layer _____ the photosphere. _____ in colour but only seen during a _____.

The Corona

The _____ layer, extending _____ of kilometers beyond the chromosphere.

Surface Features of the Sun

Sunspots

Appear as _____ patches on the _____ and are _____ than the surrounding areas.. They come and go and each is larger than _____.

Prominences

Large, _____ stream of particles extending outward from the _____ into the _____. They may last for many _____.

Solar Flares

Massive _____ of solar _____ at Sun's surface. Solar flares fling hot _____ out into space and can damage orbiting _____ and _____ transmission lines on the ground.

An extremely powerful solar flare is called a _____. These flares can reach Earth over the course of about _____ days where it meets Earth's _____ field. When the flare reaches the field, the energy is diverted away from the planet's _____ resulting in vivid and active _____.

The Sun's Effects on Earth

Solar Wind

The incredible amounts of _____ at the surface of the Sun produces a steady stream of _____ particles that emanates out from the Sun in all directions.

Aurora Borealis

Commonly known as the _____, aurora borealis is created by the _____, and results in displays of _____ and _____ light. The aurora borealis is produced when the charged _____ of the _____ collide with Earth's _____. These particles are _____ by Earth's _____ field and are swept toward the _____.