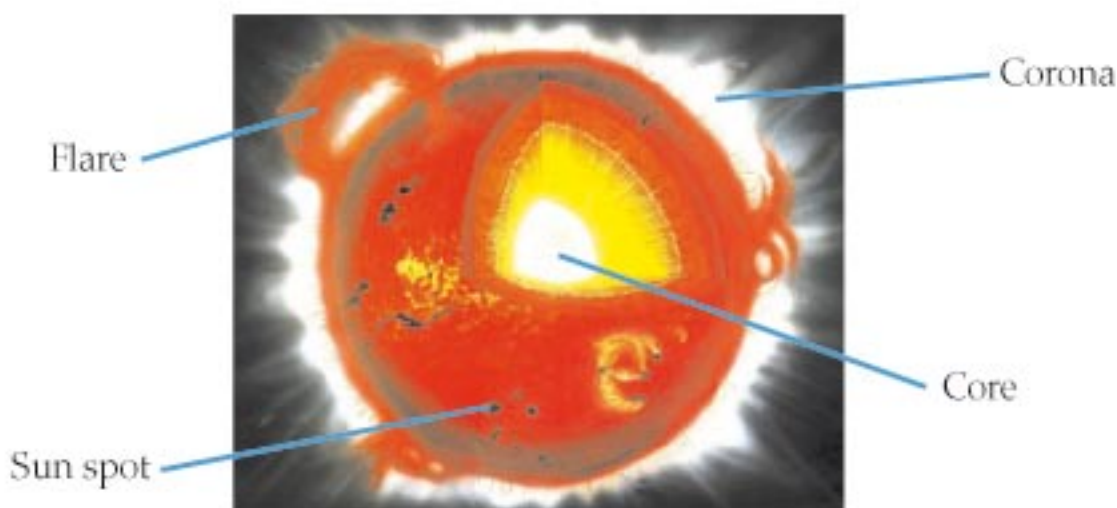


## California Content Standards

5.a. Students know the Sun, an average star, is the central and largest body in the solar system and is composed primarily of hydrogen and helium.

Like all stars, the Sun is made up of gases. Our Sun is made up mainly of hydrogen and helium. Because there is so much pressure and such extreme heat in the Sun, hydrogen atoms join together in a process called “fusion”. Two hydrogen atoms “fusing” together form a helium atom. The process creates a tremendous amount of energy. On Earth we can see that energy in the form of light and feel it in the form of heat.



Astronomers want to learn more about the Sun. They know that the bright ring around the outside is part of the Sun’s atmosphere. It is called the “corona”. They also know that sometimes there is an extra high-energy explosion of hydrogen called a “flare”. They know that sometimes there are storms on the surface of the Sun. These storms are called “sunspots”. By observing the sunspots scientists have discovered that the Sun rotates just like Earth does. They know that sunspots occur according to a cycle and have something to do with magnetic fields; but they don’t know why and they don’t know what.

“Scientists do know that the more they find out, the more questions there are.”



## Focus Question

A lot of energy is continuously created by the Sun. How is this energy created?



Hydrogen gas is combining to form helium atoms. A lot of energy is released during this reaction.

Answer