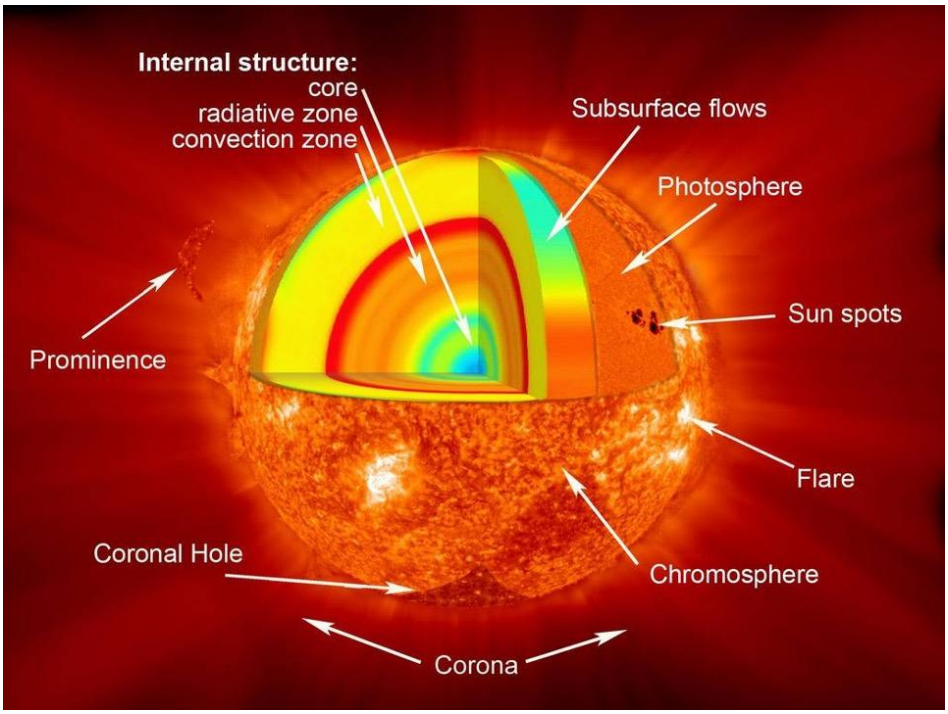
Structure of the Sun



Credit: NASA/Goddard

The Sun and its atmosphere consist of several zones or layers. From the inside out, the solar interior consists of:

- **Core** - the central region where nuclear reactions consume hydrogen to form helium. These reactions release the energy that ultimately leaves the surface as visible light.
- **Radiative Zone** - extends outward from the outer edge of the core to base of the convection zone, characterized by the method of energy transport - radiation
- **Convection Zone** - the outermost layer of the solar interior extending from a depth of about 200,000 km to the visible surface where its motion is seen as granules

The solar atmosphere is made up of:

- **Photosphere** -the visible surface of the Sun
- **Chromosphere** - an irregular layer above the photosphere where the temperature rises from 6000°C to about 20,000°C
- **Transition Region** - a thin and very irregular layer of the Sun's atmosphere that separates the hot corona from the much cooler chromosphere
- **Corona** - the Sun's outer atmosphere
- Beyond the corona is the **solar wind**, which is an outward flow of coronal gas. The Sun's magnetic fields rise through the convection zone and erupt through the photosphere into the chromosphere and corona. The eruptions lead to solar activity, which includes such phenomena as sunspots, flares, prominences, and coronal mass ejections.