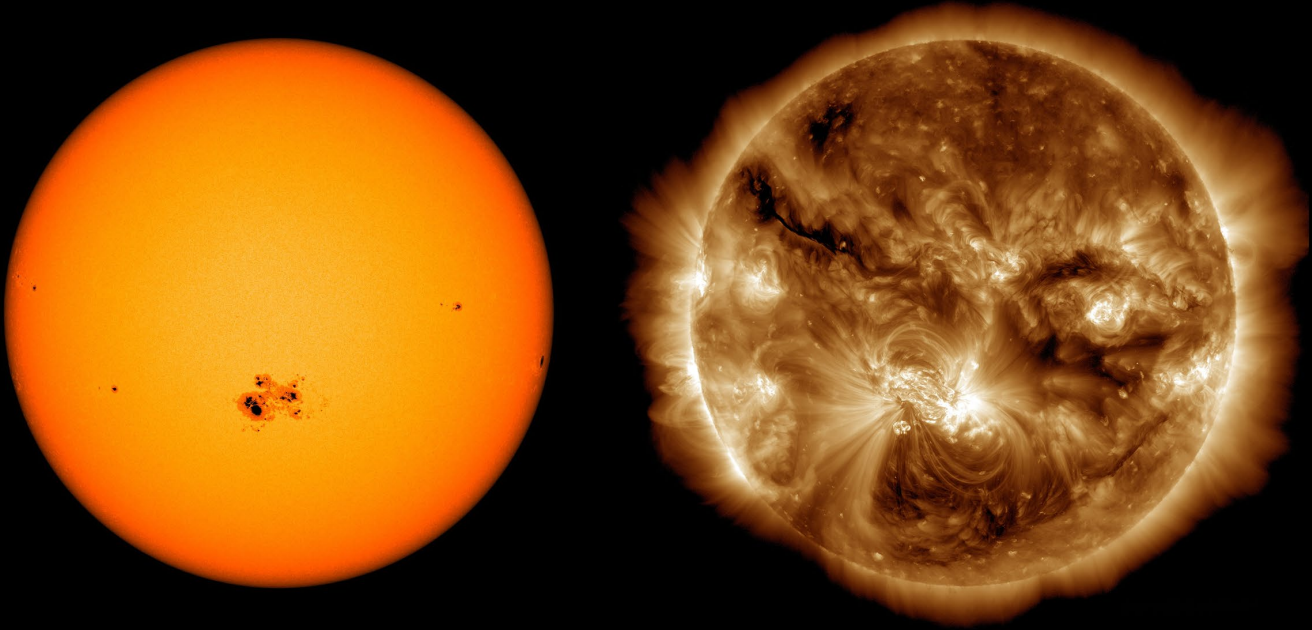


# Sunspots and the Solar Cycle

NASA scientists study the Sun at different energy levels of light.



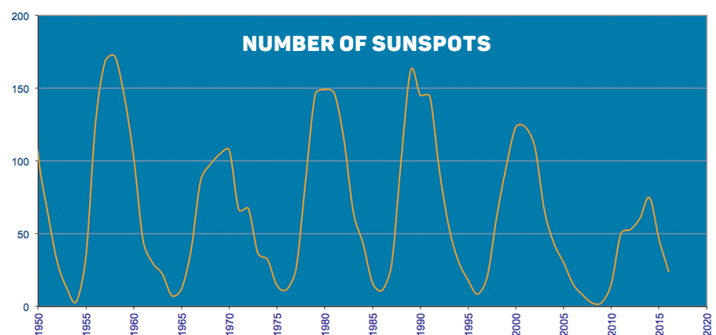
NASA's Solar Dynamics Observatory took these images of the Sun in October 2014. A large cluster of sunspots can be seen near the middle of the visual light image on the left. The image on the right, taken using ultraviolet light, shows the magnetism and particles associated with the sunspot cluster.

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## Sunspots can be counted each day and recorded as a measure of solar activity.

There's a pattern in how the number of sunspots changes over time. The peak in sunspot count is called *solar maximum*, while the low counts are called *solar minimum*. After many years of observation, scientists have shown this solar activity cycle lasts about 11 years. During solar maximum, events of intense activity on the

Sun, or *solar storms*, often interfere with our satellite technology or cause power outages in our cities. At the same time, *auroras* (the northern lights and southern lights) can appear brighter, more colorful and dynamic, and can be seen at lower latitudes. NASA scientists, together with other scientists around the world, monitor the Sun and its "stormy weather" to better understand its workings and potential impact on Earth and our society.



Sunspot activity measured over time shows an 11-year cycle.