

Nature's Light Show

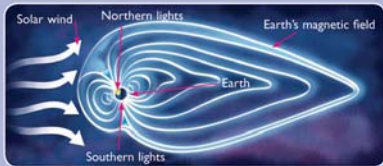
SHOCKER

During the northern lights of 1859, two **telegraph** operators in the United States were astonished. They turned off their power. However, they could still communicate. Their telegraph lines were running on solar wind power!

Northern lights, Canada

The northern and southern lights result from solar wind. Solar wind is a high-speed flow of **particles** from the sun. The particles have an electrical charge.

The earth has a **magnetic field** that protects it from most of the solar wind. However, some of the particles get trapped by the magnetic field. They travel toward the earth's poles. As they enter the earth's **atmosphere**, they release energy in the form of light. This light can be white, red, green, blue, or violet.



Southern lights, Antarctica

The scientific names for these lights are:

northern lights – *aurora borealis*
southern lights – *aurora australis*

Aurora was the Roman goddess of dawn. *Borealis* means "northern," and *australis* means "southern."