

Northern Lights





Chalk Art

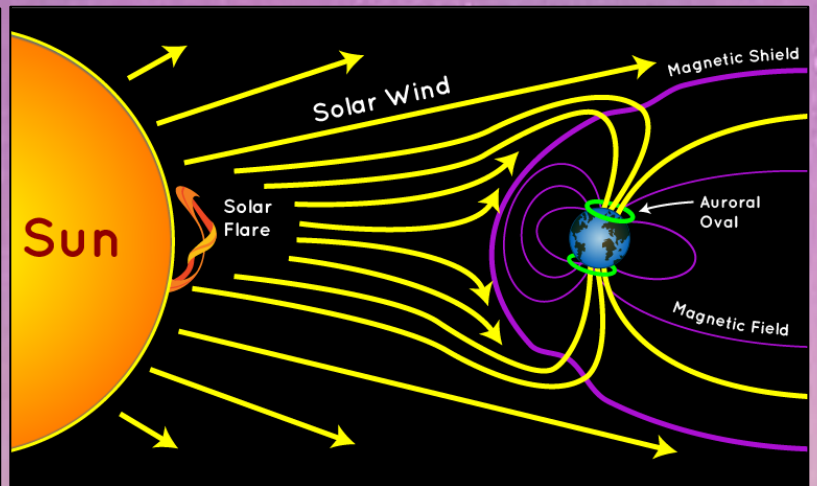


The Northern Lights have been extra visible around North America this year, inspiring people to travel in pursuit of this beautiful phenomenon! Creating Northern Lights Chalk Art is a beautiful way for children to try their hand at blending art techniques while discovering the science behind one of nature's most spectacular light shows.

What are the Northern Lights?

Auroras are magnificent, colorful displays of light that sometimes appear in the night sky. They appear in earth's far southern and far northern regions, and here in the Northern Hemisphere, they are called aurora borealis, or the northern lights. These sweeping displays of colored light take the shape of rays and arcs and swirls, creating waves of colorful light that looks like clouds. This amazing display is caused by the sun! The sun emits a stream of electrically charged particles called solar wind, which travels from the sun toward the earth. The earth's magnetic field pushes the particles toward the planet's north and south pole regions. As the particles move down through earth's atmosphere, they crash into gasses, which causes the atoms and molecules to give off light. This light is an aurora! The different gasses determine the light's colors.

RED Excited atomic oxygen at high altitudes Above 150 miles (241km)	
GREEN Excited atomic oxygen at lower altitudes Up to 150 miles (241km)	
PURPLE Ionized molecular nitrogen Above 60 miles (96.6km)	
BLUE Below 60 miles (96.6km)	



Create!

MATERIALS

Sturdy Black Paper
Colored Chalk
Pencil



STEPS

- 1) Draw your picture using a pencil. Start at the bottom of the paper and draw your landscape. This can be trees, mountains, a house in a field, etc. Next, draw wavy lines in the sky.
- 2) Use one color of chalk to draw over your wavy lines. Repeat this with all colors until all wavy lines have a color. Note: Do not “color” with the chalk, simply draw over the pencil lines.
- 3) Blend! Use two fingers to lightly spread and smear your chalk colors in an upward direction to create cloudy streaks of light across the sky, blending as you see fit. If you don't like the outcome, simply add new streaks and continue blending.
- 4) Before moving onto your landscape, hold your paper over a trash can and carefully tip and tap it so the loose chalk falls off it.
- 5) Enhance your landscape! White can be used to create snowy mountains, black can be used to create tree silhouettes, etc.
- 6) Use white chalk to add stars to your sky.!



Opportunities for Expanded Learning

What is an Aurora?

Discover what NASA has to say about this phenomenon [HERE!](#)

What is Solar Wind?

Learn more about this fascinating science with “Planets for Kids” [HERE!](#)

What Causes Northern Lights?

Explore the space conditions that create these amazing displays of life with NASA Space Place [HERE!](#)



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