Watercolor Aurora Sky

Create a picture of the northern lights. Explore aurora mysteries!

Materials Needed:

Crayola or other water-based markers (blue, green, red, purple, yellow), pencil, Sharpie or other fine black marker, watercolor paper, paintbrush, water, paper towels, circular stencil or compass.

This activity is adapted from the Watercolor Galaxy Sky Tutorial by artist Jen Aranyi. Watch the video here: www.youtube.com/watch?v=Vps0EwzRHxk
About the artist: jenaranyi.com/about-jen/

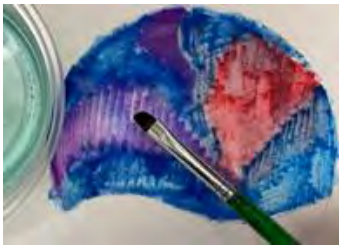
Instructions:

Step 1: Trace a circle on your watercolor paper with a pencil. Then trace an outline of the horizon (hills or flat) across the bottom third of the circle.

Step 2: With the water-based markers, color in the aurora with green, red, or purple markers in the top two-thirds of the circle. Aurora can look like wavy bands across the sky or large areas of color over the horizon. Fill in the sky with blue marker. Leave the area under the horizon line white.

Color Tip: Combine green and yellow to make a bright green. Combining red with green is not recommended as it may result in a brown color.

Step 3: Apply water over the colored area with a paintbrush. Rinse the brush regularly to avoid a muddy effect. Let this dry completely. Don't worry if you still see marker lines; as the water dries, a smoother blend of colors will appear.



Step 4: Trace the horizon line again with your black fine-tipped marker. Add trees, hills, houses, or any landscape you choose in front of your sky. Younger children can use a water-based black marker, as long as the paper is completely dry. Alternatively, use paper collage to create the landscape instead.

Optional: Paint or draw tiny white dots on the sky for stars. Cut out your aurora watercolor art circle and glue onto a black sheet of paper!

UNIVERSITY OF ALASKA
MUSEUM OF THE NORTH

Aurora Mysteries

One of the most beautiful natural displays of light in the night sky still holds many mysteries! Scientists are studying the aurora to find out more about it.

Distinct Versus Diffuse Aurora

Aurora scientists are investigating why some auroras look like intense bands of lights moving rapidly in the sky (distinct) while other aurora look more like a hazy area of light (diffuse).

Image: Jean Beaufort, publicdomainpictures.net.

Image: Frostnip907, flickr.com

Scientists have found that special waves, called Alfvén waves, accelerate electrons and lead to the streaks of lights. The charged particles from the solar wind caught in Earth's magnetic field are riding those waves in a similar way to surfers riding ocean waves.

Visit Science Friday for more information and a lesson plan (grades 9-12):
www.sciencefriday.com/educational-resources/some-aurora-appear-in-distinct-lines/

Citizen scientist image of STEVE.
Image: NASA Goddard.

What is STEVE?

NASA scientists called on photographers and citizen scientists to help understand the mystery of this unusual purple aurora.

Read about the STEVE phenomenon:
www.nasa.gov/feature/goddard/2018/mystery-of-purple-lights-in-sky-solved-with-help-from-citizen-scientists

UNIVERSITY OF ALASKA MUSEUM OF THE NORTH