



GUNFLINT TRAIL NIGHT SKY

The Gunflint Trail's rural location — far removed from glowing city lights — allows stars, planets, and other celestial bodies to shine brightly through the dark night sky. When you visit the Gunflint Trail, spend some time soaking up the fabulous nightscape. To get the best view, stand in an open area away from trees and buildings. As you peer up into the night sky, search for the following night sky landmarks:

The Milky Way

The Milky Way galaxy is visible as a large glowing white strip running through the sky; it almost looks like someone spilled a glass of milk in the sky. Although it's difficult to distinguish individual stars when you look at the Milky Way, a galaxy is in fact a large grouping of stars. The planet Earth is located inside the Milky Way. Although the Milky Way galaxy is disc-shaped, we only see a strip of the galaxy in the sky because we're looking out from inside the galaxy.

Constellations

Constellations are groups of stars which represent imaginary pictures in the sky. You have to play "connect-the-dots" and use your imagination to see the images that constellations represent. The constellations you see when you look at the night sky change with the time of year or night. Because the earth rotates and moves around the sun, when we look at the night sky, it's like we're looking up through the window of a moving car.

The Big Dipper: All year long, look north and try to spot seven stars that look like a dipper (or water scoop) hanging in the sky. The Big Dipper isn't actually a constellation; rather, it's part of the large constellation Ursa Major.

Cygnus the Swan: On a summer night, look straight above you and look for a bright star on the edge of the Milky Way. This star, Deneb, is located in the swan's tail. From Deneb, scan the surrounding sky to locate the stars arranged in a skewed cross which represents the swan's outstretched neck and wings. As you look around the sky, you might see two other stars as bright as Deneb. These three stars – Deneb, Vega, and Altair- make up a star pattern known as the Summer Triangle.

Orion the Hunter: On a winter evening, look to the south for three bright stars lined up at a slight diagonal. This is Orion's belt. Let your eyes wander around the sky surrounding Orion's belt and see if you can find Orion's feet, the club raised above his head and his outstretched shield.

Most constellations' names come from characters in Greek mythology. If you're interested in the stories behind the constellations, check out D'Aulaires' *Book of Greek Myths* from your local library.





Moon Phases

Each night we look up at the same moon, but every night it looks a little different. Some nights the moon appears big and round. Other nights it's just a teeny sliver. The moon's appearance changes because the moon circles the Earth.

It takes the moon 28 days to make one full revolution around the earth. As the moon circles the Earth, it comes in between the Earth and Sun and we can't see the side of the moon that's illuminated by the sun. This is the moon phase we call a new moon. As the moon continues around the Earth, the moon seems to grow, or wax, as the sun shines on a larger and larger portion of the moon as the moon moves around the Earth until the moon reaches the full moon phase. After the full moon phase, the moon continues on its route and appears to shrink, or wane as it moves in between the Earth and Sun.

You can tell if the moon is waning or waxing by noticing which side of the moon appears to have been bitten off. If the moon is missing a portion of its left side, the moon is nearing the full moon phase. If the moon is missing a portion of its right side, the moon is nearing the new moon stage.

Meteorite Showers

Every once in a while you might see what appears to be a star falling through the sky. Often called shooting stars, this streak of light is actually a meteor, or a bit of rock or debris falling through the earth's upper atmosphere. As the debris falls, it generates heat and usually burns up long before reaching Earth. On very rare occasions, meteors do collide with Earth.

There's a chance of seeing meteors any night. It's considered good luck to see a shooting star and some people believe you should make a wish when you see one. During certain times of the year, as the Earth travels around the sun, the Earth passes through an area of the sky with a lot of debris, usually left behind by a comet, and we see meteor showers.

Several meteor showers occur annually. The name of each meteor shower comes from the constellation near where the meteors originate in the sky:

Quadrantids (early January)

Lyrids (late April)

Eta Aquarids (early May)

Perseids (mid-August)

Orionids (late October)

Leonids (mid-November)

Geminids (mid-December)

Additional resources:

A Child's Introduction to the Night Sky
by Michael Driscoll and Meredith Hamilton

Night Sky Field Guide by Jonathan Poppele

The Glow in the Dark Night Sky Book
by Clint Hatchett