

ACTIVITY 1

IN THE SKY, I CAN SEE...

Grades :
K-4

Level of preparation :
easy

Student groupings:
**individual or
small groups**

Length :
**20-30
minutes**

Location of activity :
in class

BRIEF DESCRIPTION

This short activity allows students to reflect on what is visible in the sky during the day and at night. As a team, they complete the activity sheet by drawing or writing what they can see in the night sky and in the daytime sky. A class discussion is encouraged at the end.

LEARNING GOALS

- Identify what is visible in the sky with the naked eye.
- Name familiar celestial objects and phenomena.
- Notice differences between the night sky and the day sky.

MATERIALS

- 1 activity sheet for each child
- crayons (if children draw on the worksheet)

INTRODUCTION

In most children's books, images of the daytime sky show the Sun while night sky images show us the Moon and stars. But is that all that is visible? Are there no other objects or phenomena that we can see?

This simple activity will allow students to reflect on the visible objects and phenomena in the sky and they will discover that many things are visible when we take the time to look up.

PREPARATION

Print the worksheet so that every student has one.

METHOD

Distribute the activity sheets and have students work in small groups to identify visible objects and phenomena in the sky, during the day and at night. Have them find as many as possible. Depending on the age of the children, they can either draw or write a list.

After 10-15 minutes, come back in a large group and start a class discussion on what students have written or drawn. The list will probably be very long! If students did not list the Moon themselves, it may be worthwhile to make them realize that it is also visible during the day.

ADDITIONAL INFORMATION

Several objects and phenomena are visible to the naked eye in the sky. We just need to think about looking up to be able to see them!

Here we present a list of astronomical phenomena visible at night and during the day. Note that students may also mention things which are not astronomical in nature, such as airplanes, rainbow sky, clouds, birds, lightning

BY NIGHT

- **Stars:** It is possible to see thousands of stars in a very dark sky, away from light pollution. However, this number drops to only a few dozen in cities because of artificial lights.
- **Moon:** The Moon is the easiest object to observe in the night sky. Different phases can be observed during a 30-day cycle. It is also possible to observe lunar eclipses during the night, but these are rare.
- **Planets:** Five planets are visible to the naked eye: Mercury, Venus, Mars, Jupiter and Saturn. Without an instrument such as a telescope, they simply look like stars. Some, like Venus, Mars and Jupiter, can become quite bright and it becomes easier to identify them amongst the background stars.
- **Shooting stars or meteors:** Shooting stars are not stars, but space dust particles falling through the Earth's atmosphere at high speed. The heat created when they pass through the atmosphere leaves a trail of light we can observe.
- **Milky Way:** Under a very dark sky, away from city lights, it's possible to see a whitish band across the sky. This is the disk of our galaxy, where there are so many stars that the light from all of them combines to form this white band.
- **Northern lights:** This phenomenon is rare in southern Canada, but can be seen more often as we get closer to the North Pole. People living in northern Canada, such as the territories, are very well situated to observe them. The northern lights, or aurora borealis, are created by the interaction of particles from the Sun with our atmosphere.



- **Artificial satellites:** When watching the night sky for a few minutes, many bright dots can be seen moving from one horizon to the other in a few minutes. They are artificial satellites orbiting the Earth. If a bright dot has rapidly flashing lights or lights of different colours, it is a plane and not a satellite.

BY DAY

- **Sun:** The Sun, our star, dominates the daytime sky. It's interesting to mention to students that the Sun is a star like the others we see at night. It's simply much closer to us. So in reality, it's appropriate to say that we can see stars during the day and at night!
- **Moon:** Most people are surprised to realize that the Moon is visible in daylight! In fact, it is visible in the day almost as often as at night, but it is more difficult to notice because of the brightness of the sky. It's also possible to observe solar eclipses during the day, but these are very rare.
- Other objects and astronomical phenomena can be observed during the day, but they are extremely rare, bright objects, such as a small asteroid entering the atmosphere and causing a very bright meteor. Some experienced observers can also detect planets and satellites in the daytime by knowing exactly where to look.

Name: _____

IN THE SKY, I CAN SEE...

Draw or write everything you can see in the sky during **the day**.



Draw or write everything you can see in the sky **at night**.

