

How to Stellarium - Part 2		Grade 6 - Earth and Space Science
Lesson Plan	Safety Notes	N/A
<p>Description</p> <p>In this lesson students will learn more on how to use Stellarium Web in order to navigate the night sky at different locations, as well as find key celestial objects, like the Milky Way, the Orion Nebula, planets, and the southern constellations.</p> <p>Listed below are the concepts that will be covered:</p> <ul style="list-style-type: none"> • The Sun, Moon and planets travel along a path across the sky, • Usefulness of red light when star watching, • The sky looks different at different latitudes. 		
<p>Materials</p> <ul style="list-style-type: none"> • Go to https://stellarium-web.org/ • Handouts 		
<p>Science Background</p> <ul style="list-style-type: none"> • A galaxy is a large group of many stars. Our galaxy is called the Milky Way. • Like the Earth, the planets also orbit around the Sun. This causes them to travel across our night sky. • Since the Earth orbits the Sun, the Sun will seem to travel across the sky throughout the year. Its path makes an imaginary line known as the ecliptic, going across the zodiac signs. • Due to the Earth spinning on itself, celestial objects rise in the East, and set in the West. • Red light doesn't affect night vision; useful for looking at a star chart while viewing the night sky. • Different constellations are visible in the Southern Hemisphere. 		
<p>Activity Procedure</p> <ul style="list-style-type: none"> • Watch the video for information on how to use Stellarium Web. • Use Stellarium Web in order to answer the questions on the Handout. • <u>Note</u>: If you do not have access to the Internet, you may answer the questions by using the pictures provided. 		
<p>Debrief</p> <ul style="list-style-type: none"> • Stellarium is a useful planetarium tool to help view the night sky. • Some celestial objects are only visible at certain times of the year, or may only be visible before sunrise instead of after sunset. • The night sky looks different at different latitudes. 		

Handout

To follow along, go to <https://stellarium-web.org/>

(If you are interested in the full free software, download at: <https://stellarium.org/>)

Exercises

1. Change the location to anywhere in the Northern Hemisphere.

Location: _____

- a) Name four constellations that you can see.

- b) Can you see Polaris, and in which direction is it? _____

- c) What is the name of the imaginary line representing the Sun's path?

2. Change the location to anywhere in the Southern Hemisphere.

Location: _____

- a) Does the sky look the same? _____

- b) Can you find Polaris the North Star? _____

- c) Name four new constellations that you can see.

Handout - Answer Sheet

To follow along, go to <https://stellarium-web.org/>

(If you are interested in the full free software, download at: <https://stellarium.org/>)

Exercises

1. Change the location to anywhere in the Northern Hemisphere.

Location: **Anywhere above Equator**

- a) Name four constellations that you can see.

Examples: Leo the Lion, Leo Minor, Auriga, Virgo the Maiden, Gemini the Twins, Draco, Hydra, Crater, Corvus, etc...

- b) Can you see Polaris, and in which direction is it? **Yes, North**

- c) What is the name of the imaginary line representing the Sun's path?

The ecliptic

2. Change the location to anywhere in the Southern Hemisphere.

Location: **Anywhere below Equator**

- a) Does the sky look the same? **No**

- b) Can you find Polaris the North Star? **No**

- c) Name four new constellations that you can see.

Examples: Vela, Puppis, Columba, Centaurus, Crux, Pavo, Pyxis, Ara, Phoenix, etc...

