

# History and *stars*



## Grade Six

1 hour talk on light, sextants, and telescopes. Students will handle sextants and learn the basics of their use to collect light from heavenly bodies and compare it with earthly vistas. Includes a comparison of how voyageurs and astronauts use technology to understand their world using the sky. Includes constellations and different cultural stories about the stars, Indigenous use of stars and Indigenous stories.

### How We Saw, See, Experience and Use the Sky Above Us

Asks the questions: If explorers didn't have stars, what would they have done? What if the stars go out now? **\$75/class**

#### The following can be added on to 'History and Stars':

##### Stellarium Show-30 minutes

In depth talk of the uses of constellations and how to find and use them for survival.

**\$25/class**

##### Glow in the dark constellation cube- 45 minutes.

Students make their own glow in the dark cube featuring prominent constellations.

**\$3/participant**

##### Galilean Telescope-2 hours

Make a real telescope featuring two lenses and a stand!

**\$7/participant**

##### Constellation Booklet- 15 minutes

Take home book featuring prominent constellations and quick talk about them.

**\$1/participant**

##### Indigenous Star Stories-30 minutes

Take home printable featuring Indigenous Star Stories.

**\$3/participant**

##### Freeze-Dried Food (corn, pineapple and strawberries)

Enjoy food just like the astronauts eat and experience a little of what space life is like.

**\$3/serving**

##### Jerky /Bannock

Enjoy food eaten by voyageurs on their adventures across Canada.

**\$2/participant**

##### Indigenous Shadow Stick Demonstration-30 minutes

Learn to tell time, using a traditional Indigenous method.

**\$1/participant**

##### Simple Sundial- 30 minutes

Create a simple sundial to take home.

**\$2/participant**

**Please see following pages for your grade's curriculum outcomes.**

To book, email

manager@

northernrockiesmuseum.com

or call at 780-801-2643.

Also available for



Bring the museum to your school!

## **Grade 6 History and Stars Outcomes**

**Science 6.7** Observe, describe and interpret the movement of objects in the sky; identify pattern and order in these movements.

Students will learn the importance of stars and the sun for the advancement of mankind.

### **Science 6.7.1-6.7.12 Properties of Light in Space**

Learn how to use sextants, telescopes and how light travels through space.

### **Science 6.7.2 Stars and Constellations**

Greek, Indigenous and modern constellations, how they change seasonally, and how they have changed over time. Also includes constellation stories from both the Ancient Greeks and the Iroquois.

### **Science 6.7.3 Movement of Bodies in Space**

Use of sextants and how the reliability of night sky objects and their movement was how these tools were used. Understanding how the earth rotates is essential to accurate mapping of the earth using a sextant.

### **Science 6.7.4 - 6.7.7 Observation of Space**

How to safely observe light from space. How to use the sun with a sextant or with telescopes and the necessary safety precautions.

### **Science 6.7.11 International Space Station**

The tools that are on board or used by the International Space Station. How astronauts survive in the hostile environment of space.

### **Social 6.S.2 Develop Skills of Historical Thinking**

Use of museum resources and staff to deepen understanding. Changing of star stories over time and cultures.

### **Social 6.S.3 Develop Skills of Geographic Thinking**

Learning how to use sextants to establish your position on earth using geography of both the sky and the land.

### **Social 6.S.8 Demonstrate Skills of Oral, Written and Visual Literacy**

Discussions, communication and listening skills.

## **Stellarium**

### **Social 6.2.4 Analyze Democracy in Athens**

Ancient Greeks imposed rules on everything from life (democracy) to the stars (math and physics). The precision of the zodiac and movement of the stars will be explained in the stellarium show.

### **Science 6.7.2 Stars and Constellations**

Greek and Modern constellations, the seasonal constellations and how they have changed over time.

### **Science 6.7.3 Movement of Bodies in Space**

Understanding how the earth rotates is essential to accurate mapping of constellations.

### **Social 6.S.3 Develop skills of geographic thinking**

Learn how the position of the earth changes the positions of constellations in the night sky.

## **Glow in the Dark Cubes**

### **Science 6.7.1 Light Emitted by Celestial Bodies**

Learn about constellations and the light they emit-while creating our own light emitting dice!

### **Science 6.7.2 Stars and Constellations**

Drawing constellations and making them easily recognizable.

### **Art Level Three, Media and Technique, Drawing**

## **Galiean Telescope**

### **Science 6.7.1 Light Emitted by Celestial Bodies**

Capture the light from distant stars using this telescope.

### **Science 6.7.4 - 6.7.7 Observation of Space**

Build a telescope to view celestial bodies.

## **Constellation Booklet**

### **Science 6.7.2 Stars and Constellations**

Greek, Indigenous and modern constellations, how they change seasonally, and how they have changed over time.

## **Indigenous Star Stories**

### **Science 6.7.2 Stars and Constellations**

Indigenous constellation stories and where they are located in the night sky.

### **Social 6.2.4 Analyze Structure and Functions of the Iroquois Confederacy**

How the star stories of the Iroquois peoples reflects their culture, the standing of women and the importance of the earth and its animals. This is reflected in the societal structures.

## **Shadow Stick Demonstration**

### **Science 6.7.8 Orbit vs Rotation**

Building of a shadow stick. What longitude is and why there is a difference between the southern and northern hemisphere and the time of year.

### **Social 6.2.4 Analyze Structure and Functions of the Iroquois Confederacy**

How the star stories of the Iroquois peoples reflects their culture, the standing of women and the importance of the earth and its animals. This is reflected in the societal structures.

## **Simple Sundial**

### **Science 6.7.8 Orbit vs Rotation**

Building of a simple sundial. What longitude is and why there is a difference between the southern and northern hemisphere and the time of year.