Program: Our Changing Moon
Grade Level: 2 to 8
Group Size: Max. 30
Length: 60 minutes
Location: At your site

OVERVIEW

Students begin by physically modeling the Sun, Earth, and Moon system, the scale of the solar system and reviewing basic principles. In the planetarium students gain a deeper understanding of the phases of the Moon, its orbit and rotation, and the lunar environment.

BIG IDEAS

• Earth-Moon-Sun system and the resulting effects (phases, eclipses)

OUTCOMES – What will the students know or be able to do at the end of the lesson?

• Model the solar system to show how the phases of the moon are created (including orbits and rotations of bodies)
• Describe the distances of the Sun and the Moon from Earth and their relative sizes
• Compare the Earth and the Moon in size, environment, and formation

Vocabulary

• Moon phases: new, crescent, quarter, gibbous, full
• Waxing
• Waning
• Orbit
• Rotation
• Gravity
• Atmosphere

Extended Learning

In your classroom:
• NASA Night Sky Planner: shows the current phase of the Moon and what is visible in the sky tonight at your location
Standards Supported – NGSS/CCSS/21st Century Skills

**Next Generation Science Standards (NGSS)**

- Earth and Space Sciences: 5-ESS1-1, MS-ESS1-1, MS ESS1-3

**Common Core State Standards (CCSS)**

- ELA: Science & Technical Subjects: CCSS.ELA-Literacy.RST.6-8.3

**21st Century Skills**

- Critical Thinking and Problem Solving
- Creativity and Innovation
- Cross-disciplinary Thinking

**Reservations**

For reservations, please call 206-768-7175 or email: outreach@museumofflight.org
For grant assistance, please visit www.museumofflight.org/education/grant-assistance.