



MUSEUM OF
NATURAL HISTORY
AND PLANETARIUM
Roger Williams Park

Astronaut Full-Dome

A Pre-Visit Information Guide for Teachers

NGSS: 2-LS4-1, 3-PS2-2, 4-PS3-1, 4-LS1-1, 5-PS2-1

ABOUT THE CORMACK PLANETARIUM

- The ASH Warped Media fulldome projector system surrounds audiences with 360-degree digital visuals on the dome.
- In a planetarium, objects in the universe are projected, as they exist at any time in space.
- These celestial objects are projected onto a dome-shaped ceiling so it appears that one is looking up into the night sky.
- Our Star Projector is capable of displaying images of over 7,000 stars...many more than anyone can see without the aid of a telescope. Planets, comets, satellites and the Milky Way and Andromeda Galaxy can also be projected.

ASTRONAUT

The exploration of space is the greatest endeavor that humankind has ever undertaken. What does it take to be part of this incredible journey? What does it take to become an astronaut? Astronaut, the latest immersive planetarium show to be created by the National Space Center, takes you from Earth into space... and beyond.

Experience a rocket launch from inside the body of an astronaut. Explore the amazing worlds of inner and outer space, from floating around the International Space Station to maneuvering through microscopic regions of the human body. Discover the perils that lurk in space as we subject 'Chad', our test astronaut, to everything that space has to throw at him.

Presented in stunning high-definition 360-degree fulldome video and explosive surround sound, ASTRONAUT is an experience like nothing on Earth.

SUGGESTED CONCEPTS TO REVIEW INCLUDE

CENTRIFUGE	G-FORCE	MICROGRAVITY
NEUTRAL BUOYANCY	SPACEWALK	BONE DENSITY
CARDIOVASCULAR SYSTEM	VESTIBULAR SYSTEM	LAUNCH

HELPFUL INFORMATION: THE ARTEMIS PROGRAM

Artemis is NASA's new lunar exploration program, which includes sending astronauts to land on the Moon. Through the Artemis missions, NASA will use new technology to study the Moon and prepare for human missions to Mars. Artemis astronauts will launch on NASA's new rocket, the Space Launch System (SLS). It is the most powerful rocket NASA has ever built. SLS will carry the Orion spacecraft with up to four astronauts riding aboard to lunar orbit. Then the crew will transfer from Orion to a commercial lunar lander for their descent to the Moon's surface. When their work is finished, the crew will return to Earth aboard Orion. Before Apollo put the first human

on the Moon, the first Apollo missions launched to test the rocket and equipment. Before Artemis carries a crew to the Moon, NASA will test the rocket and spacecraft in flight then send a crew for a test flight: Artemis 1 completed a test flight of the SLS rocket with the Orion spacecraft with no crew on Nov. 16, 2022. Artemis 2 was the first crewed launch of Orion and the SLS rocket. The Orion spacecraft is carrying a crew of four astronauts past the Moon, then circle it and return to Earth. Artemis 3 will be a demonstration mission that will test one or both commercial landers in low Earth orbit. Artemis 4 will send a crew with the next astronauts to land on the Moon.



ACTIVITIES

Teachers are encouraged to conduct pre-visit and post-visit classroom discussions and activities with their classes to make the most of their experience. Have the students observe the sky over the course of several nights to notice what is visible to them. Explore the current status of Artemis missions. When is the next one scheduled? What is it slated to accomplish? What astronauts are currently aboard the International Space Station. Research previous ISS experiments.