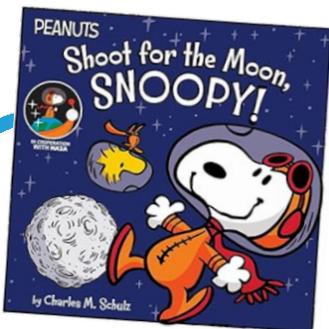




Exploring the Moon

Teacher's Guide

Color Inspires Creativity



This guide helps teachers **PREPARE** for the Crayola Creativity Week daily theme *Exploring the Moon*. You can print the two downloadable Thinking Sheets: *Design a Mission Patch* and *Zero Gravity Indicators* as handouts for students, or you could use the Thinking Sheets as your guide while students work on plain paper. Either way, they can use a variety of art materials you have on hand.

NASA has been involved with Crayola Creativity Week for the past five years. This collaboration arose because of both organizations' shared belief that creativity connects with all learning areas and that creative mindsets are essential in the field of space exploration. This year students will hear directly from the Artemis II launch director, Charlie Blackwell-Thompson, as well as astronauts whose uplifting messages about creativity, perseverance, confidence, and collaboration will inspire them to see themselves as the innovators of the future. Students can learn about NASA's longstanding relationship with Snoopy by researching the NASA Silver Snoopy award, the Snoopy Zero Gravity Indicator that flew to the Moon on Artemis I, and through the book *Shoot for the Moon, Snoopy*.

LEARNING OBJECTIVES—Students will:

- learn fascinating scientific information about the Moon and the Artemis II mission,
- reflect on the importance of creativity, perseverance, confidence, and collaboration in space exploration,
- explore several NASA mission traditions and artifacts such as mission patches and customized Zero Gravity Indicators, and
- create original designs for a NASA mission patch and a Zero Gravity Indicator.



Using the *Design a Mission Patch* Thinking Sheet, students will **RESPOND** to the NASA tradition of having a unique patch for each mission since Gemini 5 in 1965. Ask students to imagine themselves as part of a future NASA space exploration team wearing a patch that they design. They can research features that were included on patches used on past missions (images of the spacecraft, names of the crew, and symbols that represent the goals of the mission for example) and then design a new patch in any way that they'd like.



Students will **CREATE** an original design for their mission patch. They can draw upon the inspiration they received during the Creativity Week videos, their research, and their imaginations. Encourage them to personalize the design as they envision themselves as part of the future mission crew. They might want to include their name or footprints on the patch, design a futuristic spacecraft they'd travel in, and name the mission.



They can examine previous mission patches in the online NASA gallery by using the QR code at the left or this URL:
nasa.gov/gallery/human-spaceflight-mission-patches/



As students **PRESENT** their sketches, ask them to describe the images and symbols and what each represents. Encourage them to take on roles as future space mission crew members and describe how the art conveys information about the future mission. Where will the mission go? What are the goals? How did they train and prepare themselves for this experience?



Help students **CONNECT** the information they learned about the Artemis II mission with the overarching benefits of space exploration and this Moon mission. Have a class discussion about the famous quote by Neil Armstrong, the first person to walk on the Moon: "That's one small step for (a) man; one giant leap for mankind." Why is the Artemis II mission and all space exploration a giant leap for mankind?



GIVE ME SOME

SPACE

PEANUTS

Shoot for the Moon, Snoopy!
Simon & Schuster
Text copyright ©2019
Charles M. Schulz and Jason Cooper
Illustration copyright ©2019 Vicki Scott



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Using the **Zero Gravity Indicators** Thinking Sheet and video with NASA spokespersons, ask students to **RESPOND** to what they learned about these interesting objects and the role they play during space missions. What is the purpose of a Zero Gravity Indicator (ZGI)? What can be learned from the way they move? What might they look like, and what requirements are to be kept in mind as they are created?



Ask students to **CONNECT** the NASA guidelines for these non-scientific objects with the creative flexibility that opens possibilities for what they can look like. Encourage students to embrace their whimsical ideas as they design a ZGI that is small, lightweight, and able to be tethered to the spacecraft's interior with a string. Remind them that ZGIs cannot have sharp edges. They are often symbolic to the crew, reminding astronauts of home, community, or something personally significant. And since ZGIs are designed to engage the general public, they are often fun designs that evoke emotions such as joy or playfulness while helping non-experts understand the transition to microgravity to make that moment tangible and relatable.



Encourage students to **CREATE** a ZGI design that blends what they learned from their research and the NASA spokespersons with their creativity. What would be personally significant to them if they were an astronaut on the mission where this ZGI would be used? Encourage students to consider several possibilities before they decide which one to sketch.



Sasha S.



Aithan V.



Ananya V.



As students **PRESENT** their art, listen for terms used by the NASA spokespersons that they incorporate into their presentations. Can they explain how these playful objects serve an important role in the spacecraft? Ask students who created a Snoopy ZGI to discuss the longstanding relationship between Snoopy and NASA and how they were inspired by the book that was read aloud. Encourage classmates to ask questions and provide supportive comments. Point out that collaboration is essential on a space mission and helps deepen classroom learning.



After students have completed **Exploring the Moon** activities, discuss the **LEARNING OBJECTIVES** with them. Ask students to **REFLECT** on how space missions such as Artemis II rely on creativity and collaboration. Instill in students a sense of confidence that they can use their creative mindset and collaboration skills to help them seek career opportunities in whatever fields interest them, including space exploration.

Note for teachers and parents:

For more creative inspiration and hands-on explorations

go to [Crayola.com/CreativityWeek](https://www.crayola.com/CreativityWeek)

To share student artwork on social media please post using

#CrayolaCreativityWeek

