### The Brainstormers & Their Cosmic Mission

**Pre-Show Activity** 

4-6

#### Vocabulary | Gestures

Goal: Students will demonstrate their understanding of key vocabulary related to the Artemis missions, Moon Landings, and the ISS by creating and performing gestures that represent each term, fostering deeper cognitive engagement and collaboration.

NOTE: This activity has been aligned with TEKS and <u>Universal Design for Learning</u>. TEKS can be found at the end of this document.

#### **Materials Needed**

- Chart paper and markers
- Space for movement activities
- Vocabulary cards

#### Introduction

- Guide students through the show's <u>Re-Sourced preshow page</u>, focusing on section 5. This
  includes information on the International Space Station, the Moon landings, the Artemis Missions,
  and the 5 Senses. You'll need to scaffold based on your age group, but the resources are
  accessible to all ages.
- 2. Introduce the vocabulary words using vocabulary cards with images and definitions.
- 3. "Today, we will explore some important terms related to space exploration. Let's look at these words together and see how they connect to our understanding of the Artemis missions!"

Notes for UDL alignment: Encourage students to connect the vocabulary words to their own experiences or interests, making the words more relevant to them.

- 1. Some vocabulary words might already be familiar to your students. The vocabulary cards included are:
  - a. Apollo
  - b. Artemis Missions
  - c. Astronaut
  - d. Landing
  - e. Lunar

- f. Microgravity
- g. Orbit
- h. Rocket
- i. Scientific Research

#### **Gestures**

- 1. Have students examine the vocabulary cards, discussing the images and definitions.
  - a. Discussion Prompt: Ask, "How do these simple images represent the topics we just explored? What questions do you have?"
- 2. Gesture Creation: Students will choose a vocabulary word and create a gesture that captures its meaning. Encourage them to think critically about how to represent the word. For example:
  - a. Create a circular motion around the head for "orbit."
  - b. Mimic a rocket launching by crouching and then jumping for "rocket."
  - c. Pretend to float while holding arms out for "microgravity."
- 3. Encourage students to work in small groups to share their ideas for each gesture, refining them collaboratively before presenting them to the class.

Notes for UDL alignment: Allow students to express their understanding creatively through gestures, promoting active participation and interpretation.

#### **Tableau a Story**

- 1. Put students in small groups.
- 2. Assign them one of the images.
- 3. Have them create three frozen pictures, using their bodies, that tell a story inspired by the image.
  - a. The story should have a beginning, middle, and end.
  - b. It should be based in reality.
  - c. Students can direct or be part of the pictures, but everyone must be involved.
  - d. Encourage creativity. For example, use bodies to be non-human things.
- 4. Present to the class then coach to "make it more fantastic."
- 5. Build on the scene by adding sounds or dialogue.

#### Notes for UDL alignment:

- Clarify the purpose of each action and how it connects to the vocabulary.
- **Potential barrier**: Students might feel hesitant to participate fully due to differing levels of comfort with acting or performing in front of peers. **Suggestion**: Nurture joy and play. Before starting the activity, create a warm and supportive environment by incorporating icebreaker games or fun warm-up activities. This can help students feel more comfortable expressing themselves and encourage a sense of belonging within their groups.
- **Potential barrier**: Some students may have difficulty physically positioning their bodies to create the frozen pictures or might struggle with expressing ideas verbally. **Suggestion**: Use multiple media for communication. Allow students to express their stories not only through body positions but also through props or drawings that they can incorporate into their tableau. For example, they could create simple backgrounds or use scarves to represent different elements of their story. This way, students can communicate their ideas in varied ways.

#### Closing

- 1. Gather students in a circle to reflect on the activity.
- 2. Ask reflective questions such as, "Which word resonated with you the most? Why? What did you learn today? What are you curious about regarding space exploration?"

Notes for UDL Alignment: Encourage students to share their thoughts and feelings about the vocabulary and gestures, fostering a sense of community and allowing for individual expression.

#### **TEKS**

#### Language Arts:

- (4.6) Listening and Speaking: Students listen and speak clearly and effectively, participating in discussions about vocabulary and sharing connections.
- (5.8) Listening and Speaking: Students demonstrate an understanding of spoken language by participating in discussions and responding appropriately.

#### Science:

- (4.10) Earth and Space: Students explore the characteristics of the Earth and the Moon and the role of human space exploration, connecting to vocabulary related to space missions.
- (5.10) Earth and Space: Students investigate and understand the characteristics of the solar system, including the roles of astronauts and space missions.

#### **Physical Education:**

- (4.1) Movement Patterns: Students demonstrate more complex movement patterns through physical activities integrated into the gesture activities.
- (5.1) Movement Patterns: Students refine movement skills while engaging in the gesture creation and Quizzle activity.

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Vocabulary cards are on the following pages.



# Apollo



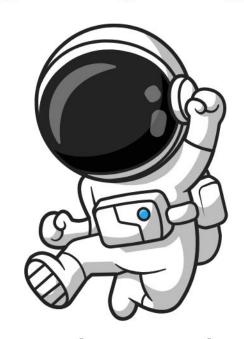
The name of the missions that first took astronauts to the Moon.

### **Artemis Missions**



NASA's program aimed at returning humans to the Moon and preparing for Mars exploration.

# Astronaut



A person who travels to space.

# Landing



The act of touching down on the surface of the Moon or another celestial body.

## Lunar



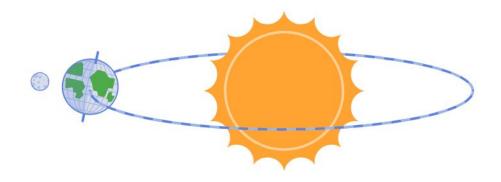
Related to the Moon.

# Microgravity



A condition in space where there is very little gravity.

# **Orbit**



The path an object takes when it moves around another object in space.



# Rocket



A vehicle that travels to space.

# Scientific Research



The systematic investigation of scientific questions conducted in space.