# Grade 1: Unit 4, Lesson 16

**Title:** *Let’s Go to the Moon*

**Essential Question:** What special tools and equipment are necessary for astronauts on a trip to the moon?

**Week 1 Comprehension**

**Knowledge Journal**

1. Read aloud the selection for the week.
2. After you read, stop and think about what you learned and the questions. What did you learn that was new *and important* about the topic from *this* resource? Use large public notes (chart paper) or individual note catchers to capture student learning. Use the optional questions to prompt reflection; sample answers provided for teacher reference.

**Sample Chart Responses**

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| **Title: *Let’s Go to the Moon*** |
| Write, Draw, or List |
| **Questions (optional)**  | **New and important learning about the topic or evidence** |
| What do astronauts bring to the moon? | *Astronauts bring space suits to keep their skin safe from the hot sun and cold shade. The space suits also give them air so they can breathe.* *Astronauts also bring space tools with them to the moon to find rocks and dust to bring back home.* *Astronauts bring lunar rovers to help them move around quickly on the Moon.* *Astronauts bring a camera with them to take pictures of everything they find on the Moon.**Astronauts bring a flag to the Moon to show where they have come from.*  |
| This selection tells us that it can take four days to get to the moon. What does this tell you about how far the moon is from the Earth?  | *The moon is very far from Earth if it takes four days to get there!*  |
| What things are not found on the Moon? | *Plants, animals, water and air are not found on the moon.*  |
| Do you think not having things like these makes it harder to live on the Moon than on Earth? Why or why not? | *Yes, because people need air and water to live and plants and animals to eat.* |
| Why are space suits important?  | *Spacesuits keep the astronauts’ skin safe from the hot sun and cold shade. They have air in them so astronauts can breathe.**Spacesuits have helmets and cover the astronaut's body to protect it.*  |
| What job does an astronaut do with space tools?  | *The astronaut finds Moon rocks and dust to bring back home.* |
| Why do you think it is important to bring Moon rocks back to Earth? | *Scientists can study the rocks. The rocks can help scientists learn more about the Moon.* |
| What words in the sentences help you know what a lunar rover is?  | *The words “drive around in” let me know that it is something you can get in and drive around in, like a car. “Dust the rover lunar kicks up” let’s me know that you can ride this in dusty places.*  |
| What do astronauts take pictures of on the moon? | *They take pictures of their footprints and the spaceship.* |
| Why is it important to take pictures on the Moon? | *The pictures are a record of the trip. They show others what the Moon looks like. They help scientists study the Moon and learn about it.* |
| Many of the photographs in this selection are actual photographs taken by astronauts on the moon. What important information do you learn from the photographs that is not in the words? | *The sky is dark. Some rocks are small and some are very big. Part of the spaceship is gold and it has legs.* |

**Written Response**

What special tools and equipment do astronauts use on a trip to the moon? Select at least three tools or pieces of equipment. Illustrate, label and write complete sentences about why each is important during a trip to the moon.

*With prompting and support, students review and recall the special tools and equipment used by astronauts to help them do their job. Students will then draft their response using vocabulary and evidence from the text.*

**Sample Student Response**

Sample Sentences:

* A space suit helps to keep an astronaut’s skin safe from the very cold or very hot moon. The helmet has air so that an astronaut can breathe.
* A lunar rover helps an astronaut drive on the Moon. It is very dusty so rovers need good wheels.
* A camera helps an astronaut take pictures on the Moon. Astronauts use these pictures to show what they did on their trip.

**Week 2, Building Knowledge: Extending the Topic**

**Essential Question:** What types of experiences do astronauts have on a trip to the moon?

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| **Cumulative Activities** – The following activities could be completed and updated after reading each resource this week. The purpose of these activities is to capture knowledge building from one resource to the next and to provide a holistic snapshot of central ideas of the content covered in response to the essential question. *It is recommended that the class and/or students complete one of the Cumulative Activities (Rolling Knowledge Journal or Rolling Vocabulary) for Week 2.* |

**Rolling Vocabulary: “Fabulous Four” Sample**

* Read each resource then, with students, pick 4 important words. The Rolling Vocabulary may be kept as a large public interactive chart with words and pictures or drawings.
* Collaboratively use the 4 words to write about the most important ideas of the text. You should have as many sentences as you do words.
* Continue this activity with EACH selection in the text set.
* After reading all the selections on the topic, go back and review your words.
* Now select the “Fabulous Four” words from ALL the word lists.
* Use the “Fabulous Four” words to write an interesting sentence or sentences about the topic.

**Sample Student Response**

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| **Title** | **Four Vocabulary Words & Sentences**  |
| *Mae Jemison* | **Words: space, space shuttle, equipment, light****Sentences:** 1. Mae Jemison had to learn many things before going to outer **space**.
2. Astronauts fly in a **space shuttle** to the Moon.
3. Astronauts bring special **equipment** with them to the Moon.
4. In outer **space**, astronauts feel as **light** as a feather.
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| *The Moon: Earth’s Satellite* | **Words: solar system, satellite, surface, gravity****Sentences:** 1. There are many planets in our **solar system**.
2. The Moon is called a **satellite** because it orbits (moves in a circle around) the Earth.
3. The Moon’s **surface** is covered with rocks and dust.
4. Astronauts float in space because there is no **gravity** pulling them to the ground. .
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| *Moon* | **Words: craters, meteorite, orbit, spacecraft****Sentences:** 1. **Craters** are made when rocks from space hit the moon.
2. Rocks from space are **meteorites**.
3. An **orbit** is the path the moon takes around the Earth.
4. The astronauts go to the moon in a **spacecraft**.
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| *Astronaut Handbook* | **Words: astronaut, engineer, space suit, space shuttle****Sentences:** 1. **Astronauts** are scientists that study space.
2. An **engineer** works on machines when they are in space.
3. A **space suit** protects astronauts when they are outside the space shuttle.
4. Astronauts travel to space in a **space shuttle**.
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| *One Giant Leap* | **Words: orbit, descend, ascend, tread****Sentences:** 1. The moon **orbits** around Earth.
2. The spacecraft will **descend** to the Moon.
3. The astronauts **ascend** in the space shuttle to go back to Earth.
4. The **tread** from his boot leaves a footprint on the Moon.
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| *The Moon Book* | **Words: reflects, collided, rotation, phases****Sentences:**1. The Moon **reflects** light from the sun.
2. The Moon was made when something **collided** with Earth.
3. The Moon makes one **rotation** around the Earth every month.
4. The Moon had different **phases**.
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| *Living and Working in Space* | **Words: space station, lab, gravity, drifting****Sentences:** 1. Astronauts travel to a **space station** to study things in space.
2. A **lab** is a place with tools that astronauts need to study space.
3. **Gravity** is what holds objects down. With no gravity we would float around.
4. Without gravity, astronauts will be **drifting** around in all directions.
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| **Fabulous Four: gravity, surface, equipment, space suit** |
| **Summary:**Traveling to the moon is difficult because there is no air or **gravity** there. Astronauts wear **space suits** and use other special tools and **equipment** to explore the **surface** of the Moon and survive in outer space. |

**Rolling Knowledge**

1. Read each selection in the set, one at a time.
2. After you read *each* resource, stop and think what the big learning was. What did you already know about this from your other reading? Write or draw in the first box. This can be done collaboratively in small groups or individually depending on your students.
3. What did you learn that was new *and important* about the topic from *this* resource? Write, draw, or list what you learned from the text about (topic).

**Sample Student Response (most likely these would be drawings!)**

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| **Write, Draw, or List** |
| **Title** | **What I already knew from my other reading…** | **What I learned from reading this…** |
| 1. *Mae Jemison*
 | Astronauts bring space tools with them to do their job on the Moon. | Astronauts also carry food with them to help them survive on the Moon. |
| 1. *One Giant Leap*
 | Astronauts go to the moon. | Neil Armstrong and Buzz Aldrin were the first astronauts to go to the moon in 1969. |
| 1. *Moon*
 | We see the moon in the sky at night. | We see the moon because it reflects the sun’s light. |
| 1. *Astronaut Handbook*
 | It isn’t very easy to be an astronaut. | You have to have lots of special training to become an astronaut. |
| 1. *The Moon: Earth’s Satellite*
 | The surface of the Moon is dusty and has many craters, or large holes. | The moon’s craters were made when space rocks crashed into the moon long ago. |
| *6. The Moon Book* | We see the moon at night. | The Moon makes no light of its own to make it shine, |
| *7. Living and Working in Space* | Astronauts would float around in space because there is no gravity. | Astronauts sleep in sleeping bags that are attached to the wall. |

**Written Response Week 2**

Complete the Writing Process (edit, revise, publish) for Week 1 writing piece.

**Sample Student Response**

Astronauts need special tools and equipment to survive on the moon. On the moon, the sky is dark and there is no air or gravity. Astronauts have to strap things down so they don’t float away. Their sleeping bags are attached to the wall to keep them from floating around. They need straps to hold them down when going to the bathroom. A space suit protects them from the hot sun and cold shade. Space suits also have air so astronauts can breathe. Space suits also have a headlamp to help them see in the dark. Astronauts use a lunar rover to drive on the moon. They use special tools to collect moon rocks. They also use a camera to take photographs of what they find on the Moon. It takes hard work and lots of training to be an astronaut.

# Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Title:** *Let’s Go to the Moon*

**Essential Question:** What special tools and equipment are necessary for astronauts on a trip to the moon?

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| **Title:**  |
| Write, Draw, or List |
| **Questions**  | **New and important learning about the topic or evidence** |
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**Writing**

Draw and label at least three tools or pieces of equipment that astronauts use on a trip to the moon. For each, write at least one sentence explaining why that tool or piece of equipment is important.

**Drawing**

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| 1) | 2) | 3) |
| 1)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 2)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 3)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

**Building Knowledge: Extending the Topic**

**Essential Question:** What types of experiences do astronauts have on a trip to the moon?

**Rolling Vocabulary**

As you read each book, keep track of the new words you are learning. Collect the most important words from each book, website or video as you read and learn. Think about the words and write or draw a picture to help you remember them.

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| **Title** | **Vocabulary Words & Sentences** |
| *Mae Jemison* | Words:  |
| *The Moon: Earth’s Satellite* | Words:  |
| *Moon* | Words:  |
| *Astronaut Handbook* | Words:  |
| *One Giant Leap* | Words:  |
| *The Moon Book* | Words: |
| *Living and Working in Space* | Words:  |
| **Fabulous Four:** |
| **Summary:** |

**Rolling Knowledge**

As you read each book, keep track of what you are learning. Write and draw what you already knew in the box on the left. In the box on the right, write and draw about what you learned from this book.

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| **Write, Draw, or List** |
| **Title** | **What I already knew from my other reading…** | **What I learned from reading this…** |
| 1. *Mae Jemison*
 |  |  |
| 1. *The Moon: Earth’s Satellite*
 |  |  |
| 1. *Moon*
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| 1. *Astronaut Handbook*
 |  |  |
| 1. *One Giant Leap*
 |  |  |
| 1. *The Moon Book*
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| *7. Living and Working in Space* |  |  |