

Artemis Missions, Moon Bases, and Future Space Colonization Bundle



- ✓ Complete Artemis Missions & Future Space Exploration Unit
- ✓ Full Daily Teaching Schedule Included
- ✓ Lessons, Readings, Projects, Mysteries, and STEM
- ✓ Editable & Digital Resources



Everything you need to teach Artemis Missions, Space Exploration, and Future Moon Colonization across multiple grade levels.

SCROLL
to take a look inside!

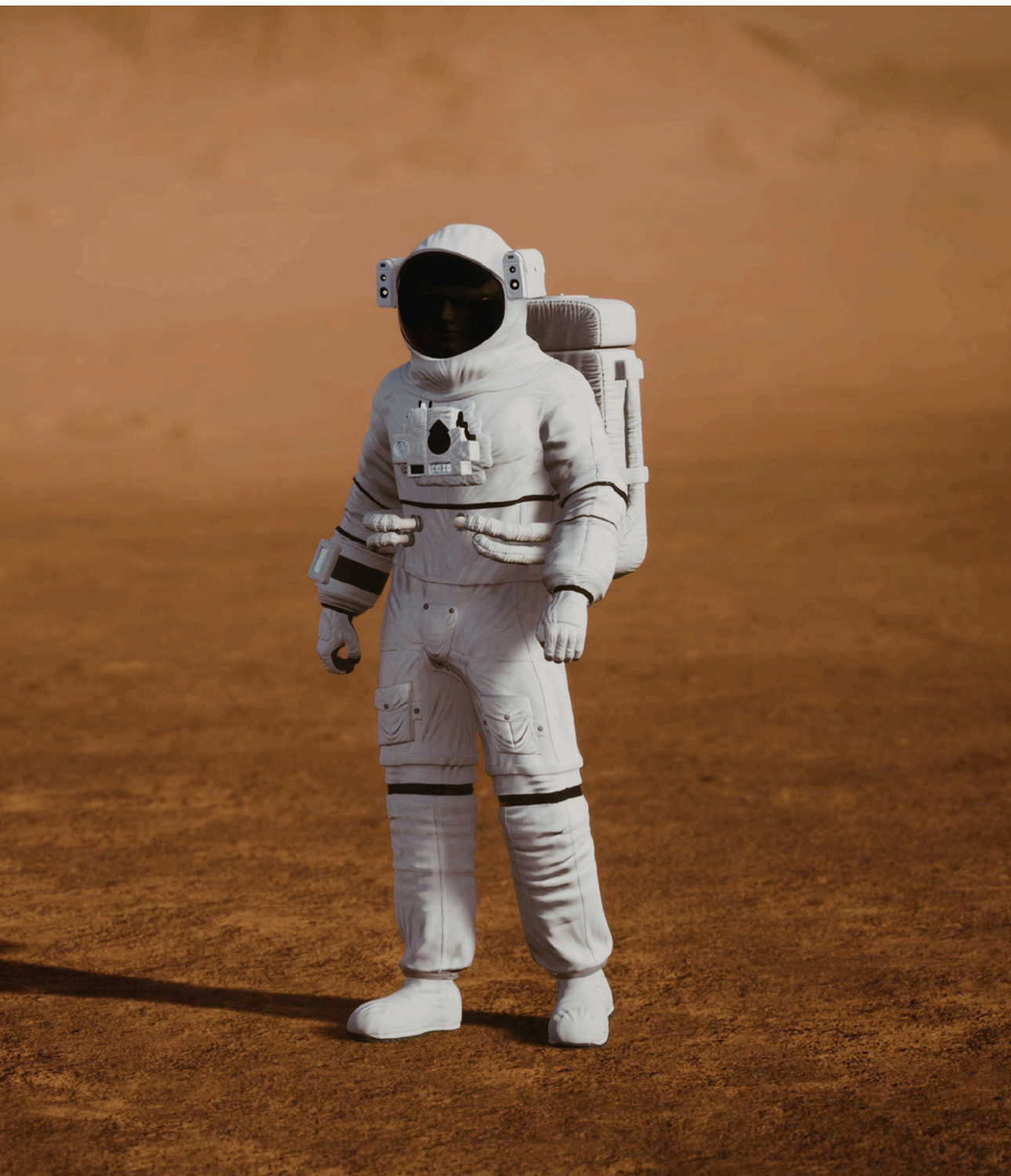


WHY TEACHERS LOVE THIS BUNDLE

- **Covers Artemis missions, Moon exploration, and future space colonization in one unit**
- Includes readings, projects, mystery activities, lessons, and STEM investigations
- **Works across grade levels with differentiated resources**
- Connects science concepts to real-world space exploration
- **Engages students through creative, inquiry-based, and problem-solving activities**
- Flexible for full units, sub-units, or individual lessons



What Will Your Students Learn?



- ✓ How NASA's Artemis missions are helping humans return to the Moon
- ✓ How Moon exploration has changed from Apollo to Artemis
- ✓ How rockets generate thrust and launch into space
- ✓ Why astronauts float in microgravity
- ✓ What astronauts need to survive during deep-space missions
- ✓ How Moon bases and space habitats could support long-term human exploration
- ✓ How scientists and engineers design systems for living and working beyond Earth
- ✓ How to use scientific thinking, problem-solving, and creativity to explore future space missions
- ✓ How real-world space exploration connects to physics, engineering, Earth and space science, and human survival
- ✓ How future missions may lead to Moon colonization and deeper space exploration

✓ Daily Teaching Schedule that is as flexible as you need it to be

✓ 4 Projects on Space Exploration and Colonization

✓ 1 Lesson --> the Moon

✓ Multiple readings on Artemis and building a Moon Base

✓ 3 Space Mystery Activities

✓ 1 STEM Investigation on rockets

Your Unit

Daily Teaching Schedule & Activities

Artemis, Space Exploration, and Future Moon Missions Daily Teaching Schedule	
Suggested length: 11 instructional days but activities can be removed to shorten the unit, with each day lasting about 40-75 minutes. Important planning note: There are multiple instances where a grade 4-8 and a grade 8 and a version of a resource are both available. This is to ensure that the reading and activity are at the correct level. Unit focus: Help students understand how Artemis missions connect Moon science, rockets, microgravity, astronaut survival, Moon habitats, and future space colonization. Day 1 – Launch the Unit with Moon Sci Main resource(s): The Moon Lesson Focus: Build background knowledge about the Moon. Suggested flow: - Introduce the unit essential question: How will future space exploration? - Teach the core Moon lesson with a focus on it. - Ask students to begin connecting Moon science. Teacher notes: This day gives students the background on Moon science, and lunar survival. Teacher role: Explain the concepts, guide discussion. Goal: Students build foundational Moon knowledge. Day 2 – Extend Moon Understanding 1 Main resource(s): Moon Activity 10: Moon Student Focus: Deepen students understanding of the Moon. Suggested flow: - Use the student-led presentations if presented. - Use the Moon Mystery Mission if given. - Include a story, and one activity in class and one. Teacher notes: This is a flexible day. Teachers can tailor it to their specific resources. Teacher role: Facilitate learning, keep students focused. Students apply Moon knowledge, solution. Day 3 – Connect Apollo to Artemis Main resource(s): From Apollo to Artemis Reading Focus: Help students understand how Moon exploration connects. Suggested flow: - Complete the reading and accompanying text. - Discuss what has changed since Apollo and why. - Have students identify how modern Moon exploration is different. Teacher notes: This day works well as the bridge to the future Moon base planning project. Teacher role: Facilitate reading, discussion, and discussion. Students understand the historical context. Day 8-9 – Design for Survival in Deep Space Main resource(s): Living in Deep Space: Artemis Survival Systems Project Focus: Shift from short to long-duration missions by exploring the systems astronauts need for survival beyond low Earth orbit. Suggested flow: - Complete the survival systems project. - Have students think about air, water, food, waste, sleeping, temperature control, and energy. - Connect the project to Artemis II and the larger goal of preparing humans for deeper space missions. Teacher notes: This project helps students see the engineering side of future missions and the challenge of keeping astronauts alive away from Earth. Teacher role: Facilitate planning, discussion, and project work. Goal: Students identify and explain the systems needed for astronaut survival during deep-space missions. Day 10 – Explore Space Habitats and Colonies Main resource(s): The Space Colony Mystery Focus: Help students investigate what is needed for long-term living beyond Earth. Suggested flow: - Complete the mystery activity. - Discuss life support, space habitats, safety systems, and how multiple systems work together in a colony. - Connect the mystery back to Moon bases and future space exploration. Teacher notes: This day prepares students for the final Moon base planning project by helping them think more deeply about long-term astronaut needs. Teacher role: Facilitate learning, evidence analysis, and class discussion. Goal: Students explain how a space colony would support human life and why long-term missions require carefully planned systems. Day 11-12 – Plan a Future Moon Base Main resource(s): Future Moon Base Planning Presentation Project Focus: Bring the unit together by having students design a realistic future Moon base. Suggested flow: - Launch the planning project, and review expectations. - Have students use evidence from earlier readings, mysteries, and projects to design their base. - Encourage students to explain how their design addresses shelter, survival, science, safety, and sustainability. Teacher notes: This project works best after students have completed the Moon base reading, survival systems project, and space colony mystery. Teacher role: Facilitate planning, conference with students, and support project development. Goal: Students apply their learning to a large, real-world Moon base design task. Day 13 – Create Mission Identity and Wrap Up the Unit Main resource(s): Artemis II Mission Patch Design Project Focus: Give students a creative way to synthesize what they have learned about Artemis and future Moon missions. Suggested flow: - Complete the mission patch design project. - Have students explain how each element of their design reflects the unit's themes and goals. Teacher notes: This is one of the less differentiated days in the unit. Students should complete the grade-level version that fits their class, not both. Day 4 – Explore Future Moon Bases Main resource(s): Building a Moon Base Reading: Artemis I, II and When Comes Next (Grades 4-8), Building and Living on the Moon Base Reading: Moon Habitat Design (Grades 8 and up) Focus: Introduce the idea that Artemis missions are stepping stones toward long-term lunar habitats. Suggested flow: - Choose the reading that best fits your students' grade band. - Have students identify what humans would need in order to live and work on the Moon. - Create a class list of Moon base requirements such as shelter, power, air, water, food, and safety systems. Teacher notes: This is one of the less differentiated days in the unit. Students should complete the grade-level version that fits their class, not both. Rockets Leave Earth Launch History The rockets create thrust and overcome gravity. Second Law Through a Rocket STEM Investigation Launch History The rockets create thrust and overcome gravity. Life is Like in Orbit Launch History The rockets create thrust and overcome gravity.	discussion, and evidence-based thinking. is a mission to future Moon base planning and begin identifying the systems needed for the of forces of thrust, fuel, gravity, mass, and launch. and launchers to the first step of many Artemis missions. provides a strong conceptual foundation before the balloon rocket investigation. and guide student reasoning. Some leave Earth and why launch is essential for Moon missions. is investigation. steps in force or mass affect rocket motion. well to real rocket launches and Artemis mission design. especially well right after The Rocket Launch Mystery because students can apply their igation, monitor groups, and help students connect results to science concepts. and Low to a rocket launch and strengthen their understanding of motion and is a mystery of why astronauts float in space and how microgravity affects life and work in orbit. by apparent weightlessness. mission training and mission planning. space's order and that space exploration is not just about reaching space, but also safety. and guide student understanding. reflects food and how microgravity changes everyday life during space missions.

The Unit is 100% flexible and offers teacher and student choice.

Engaging Activities

- 4 Projects
- 1 Lesson
- Multiple readings on Artemis and building a Moon Base
- 3 Space Mystery Activities
- 1 STEM Investigation on rockets



Moon Lesson

- ✓ Teacher and Student Version
- ✓ Fully Editable and includes Office, Google and PDF Versions
- ✓ Includes an Auto-Graded Exit Ticket via Google Forms

The Moon

- Moon Facts
- Movement of the Moon
- Moon Formation
- Phases of the Moon
- Tides
- What if the Moon Disappeared?
- Misconception – Dark Side of the Moon
- The Moon Illusion

Google Slides and PowerPoint
Versions Included
Google Classroom Ready

The Moon

* Indicates required question

The Moon

It is generally thought that the _____ best explains how the Moon came to orbit the Earth. * 1 point

- ☐ Giant Impact hypothesis
- ☐ Capture theory
- ☐ Co-formation theory
- ☐ Collation theory

Back

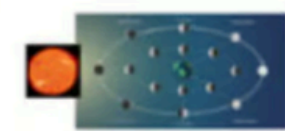
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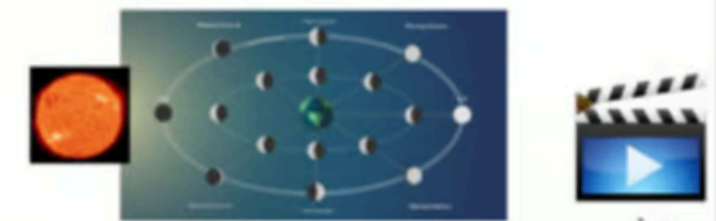
Phases of the Moon

- * A common misconception is that the phases of the Moon are caused by the shadow of the Earth.
- * Instead, the phases of the Moon _____



Phases of the Moon

- * A common misconception is that the phases of the Moon are caused by the shadow of the Earth
- * Instead, the phases of the Moon are the result of changing viewing angles throughout the month



Teacher and Student Versions of the presentation

Videos are embedded directly into the slides. One-click access.

Daily Teaching Schedule

Day-by-day teaching schedule so you'll know what to teach and when each day.

Artemis, Space Exploration, and Future Moon Missions Daily Teaching Schedule

Suggested length: 11 instructional days but activities can be removed to shorten the unit, with each day lasting about 45–75 minutes.

Important planning note: There are multiple instances where a grade 6–8 and a grade 8 and up version of a resource are both available, this is to ensure that the wording and activity are at the correct level.

Unit focus: Help students understand how Artemis missions connect Moon science, rockets, microgravity, astronaut survival, Moon habitats, and future space colonization.

Day 1 – Launch the Unit with Moon Science

Main resource(s): The Moon Lesson

Focus: Build background knowledge about the Moon before students move into Artemis and future Moon mission planning.

Suggested flow:

- Introduce the unit essential question: How will Artemis missions help humans return to the Moon and prepare for future space exploration?
- Teach the core Moon lesson with a focus on Moon phases, tides, and major Moon patterns.
- Ask students to begin connecting Moon science to why future Moon missions matter.

Teacher notes: This day gives students the background knowledge they will need before reading about Artemis missions, Moon bases, and lunar survival.

Teacher role: Explain the concepts, guide discussion, and help students connect Moon patterns to future exploration.
Goals: Students build foundational Moon knowledge and begin thinking about how Moon science connects to real-world missions.

Day 2 – Extend Moon Understanding Through Collaboration

Main resource(s): Moon Activity #1: Moon Student-Led Presentations; Moon Activity #2: NASA Moon Survival Mission

Focus: Deepen student understanding of the Moon through research, discussion, and mission-based problem-solving.

Suggested flow:

- Use the student-led presentations if you want a collaborative research day.
- Use the NASA Moon Survival Mission if you want a team problem-solving and decision-making day.
- If time allows, use one activity in class and assign the other as an extension or follow-up.

Teacher notes: This is a flexible day. Teachers can choose one activity or use both if they want extra Moon background before Artemis-specific resources.

Teacher role: Facilitate learning, keep students focused, and guide discussion.

Goals: Students apply Moon knowledge, collaborate, and begin thinking like mission planners.

Day 3 – Connect Apollo to Artemis

Main resource(s): From Apollo to Artemis Reading: Exploring the Moon

Focus: Help students understand how Moon exploration has developed from Apollo to Artemis.

Suggested flow:

- Complete the reading and accompanying questions.
- Discuss what has changed since Apollo and why Artemis is important.
- Have students identify how modern Moon missions are preparing for future long-term exploration.

Teacher notes: This day works well as the bridge between basic Moon science and the larger Artemis unit.

Teacher role: Facilitate reading, discussion, and historical connections.

Goals: Students understand the historical context for Artemis and the idea of returning to the Moon with new goals.

Day 8-9 – Design for Survival in Deep Space

Main resource(s): Living in Deep Space: Astronaut Survival Systems Project

Focus: Shift from orbit to long-duration missions by exploring the systems astronauts need for survival beyond low Earth orbit.

Suggested flow:

- Complete the survival systems project.
- Have students think about air, water, food, waste, shielding, temperature control, and energy.
- Connect the project to Artemis II and the larger goal of preparing humans for deeper space missions.

Teacher notes: This project helps students see the engineering side of future missions and the challenge of keeping astronauts alive away from Earth.

Teacher role: Facilitate planning, discussion, and project work.

Goals: Students identify and explain the systems needed for astronaut survival during deep-space missions.

Day 10 – Explore Space Habitats and Colonies

Main resource(s): The Space Colony Mystery

Focus: Help students investigate what is needed for long-term living beyond Earth.

Suggested flow:

- Complete the mystery activity.
- Discuss life support, space habitats, safety systems, and how multiple systems work together in a colony.
- Connect the mystery back to Moon bases and future space colonization.

Teacher notes: This day prepares students for the final Moon base planning project by helping them think more deeply about long-term settlement needs.

Teacher role: Facilitate learning, evidence analysis, and class discussion.

Goals: Students explain how a space colony would support human life and why long-term missions require carefully planned systems.

Day 11-12 – Plan a Future Moon Base

Main resource(s): Future Moon Base Planning Presentation Project

Focus: Bring the unit together by having students design a realistic future Moon base.

Suggested flow:

- Launch the planning project and review expectations.
- Have students use evidence from earlier readings, mysteries, and projects to design their base.
- Encourage students to explain how their design addresses shelter, survival, science, safety, and sustainability.

Teacher notes: This project works best after students have completed the Moon base reading, survival systems project, and space colony mystery.

Teacher role: Facilitate planning, conference with students, and support project development.

Goals: Students apply their learning to a large, real-world Moon base design task.

Day 13 – Create Mission Identity and Wrap Up the Unit

Main resource(s): Artemis III Mission Patch Design Project

Focus: Give students a creative way to synthesize what they have learned about Artemis and future Moon missions.

Suggested flow:

- Complete the mission patch design project.
- Have students explain the symbolism in their design and how it reflects mission goals.
- If time allows, use the end of class for Moon base presentations, gallery walks, or unit reflection.

Teacher notes: This makes a strong final day because it combines creativity, communication, and mission understanding.

Teacher role: Facilitate sharing, discussion, and reflection.

Goals: Students synthesize their learning and communicate what Artemis missions represent for future space exploration and colonization.

Day 4 – Explore Future Moon Bases

Main resource(s): Building a Moon Base Reading: Artemis I, II and What Comes Next (Grades 6–8); Building and Utilizing a Moon Base Reading: Moon Habitat Design (Grade 8 and Up)

Focus: Introduce the idea that Artemis missions are stepping-stones toward long-term lunar habitats.

Suggested flow:

- Choose the reading that best fits your students' grade band.
- Have students identify what humans would need in order to live and work on the Moon.
- Create a class list of Moon base requirements such as shelter, power, air, water, food, and safety systems.

Teacher notes: This is one of the key differentiated days in the unit. Students should complete the grade-level version that fits their class, not both.

Teacher role: Facilitate reading, discussion, and evidence-based thinking.

Goals: Students connect Artemis missions to future Moon base planning and begin identifying the systems needed for lunar living.

Day 5 – Investigate How Rockets Leave Earth

Main resource(s): The Rocket Launch Mystery

Focus: Help students explain how rockets create thrust and overcome gravity.

Suggested flow:

- Complete the mystery activity.
- Guide students through the ideas of thrust, fuel, gravity, mass, and launch.
- Have students connect rocket launches to the first step of every Artemis mission.

Teacher notes: This day gives students a strong conceptual foundation before the balloon rocket investigation.

Teacher role: Facilitate learning and guide student reasoning.

Goals: Students explain how rockets leave Earth and why launch is essential for Moon missions.

Day 6 – Apply Newton's Second Law Through a Rocket STEM Investigation

Main resource(s): Newton's Second Law of Motion STEM Investigation: Balloon Rocket

Focus: Give students a hands-on way to connect force, mass, motion, and rocket travel.

Suggested flow:

- Complete the balloon rocket investigation.
- Have students test how changes in force or mass affect rocket motion.
- Connect the investigation back to real rocket launches and Artemis mission design.

Teacher notes: This day works especially well right after The Rocket Launch Mystery because students can apply their new understanding immediately.

Teacher role: Facilitate the investigation, monitor groups, and help students connect results to science concepts.

Goals: Students apply Newton's Second Law to a rocket context and strengthen their understanding of motion and force.

Day 7 – Investigate What Life Is Like in Orbit

Main resource(s): The Microgravity Mystery

Focus: Help students understand why astronauts float in space and how microgravity affects life and work in orbit.

Suggested flow:

- Complete the mystery activity.
- Discuss orbit, free fall, and apparent weightlessness.
- Connect microgravity to astronaut training and mission planning.

Teacher notes: This day helps students understand that space exploration is not just about reaching space, but also about living and working there safely.

Teacher role: Facilitate learning and guide student understanding.

Goals: Students explain why astronauts float and how microgravity changes everyday life during space missions.

Thanks
**for your interest
in this resource!**

I am a real person and if
you have any questions,
suggestions, or concerns,
please reach out.



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TWF

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*Let's
Connect!*

