



Documenting Your Mission



Summary

When NASA has a lot of people working on a complex project over a long period of time, how do they keep it all organized and honor everyone’s efforts? Documentation! All team members will learn about the Artemis ROADS III Mission Objectives (MOs) and identify their individual funds of knowledge that will help them complete these objectives. Throughout the Challenge, each student will document their work in a Science & Engineering Notebook (SEN). Then, students will work in teams to select the evidence (e.g. photos, diagrams, maps, typing, writing) required for each MO to create one Mission Development Log (MDL) for the team.

Materials Needed	Resources from <u>Companion Course Lesson 1</u> :
<ul style="list-style-type: none"> • Science and Engineering Notebook (any notebook or binder should work) • Digital access to the Mission Development Log (MDL) Template 	<ul style="list-style-type: none"> • Engage Section: An activity to learn about NASA’s missions to the Moon by reading the First Woman graphic novel. • Explore Section: A fun Lotería card game in English and Spanish to help teams learn more about NASA’s Artemis missions. • Explain Section: A guided activity to introduce the Challenge’s MOs and identify the student’s relevant funds of knowledge. • Elaborate Section: Guided activities to teach students about the Science & Engineering Notebooks (SEN) and an introduction to the Challenge Mission Development Log (MDL).
	<p data-bbox="505 1591 899 1633">Additional Resources:</p> <ul style="list-style-type: none"> • Artemis ROADS III Schedule Flier • Mission Development Log (MDL) Template • Funds of Knowledge Worksheet • “First Woman” graphic novels: https://www.nasa.gov/calliefirst/

Getting up to Speed

Astronauts have to keep track of everything they do during their training and missions so scientists and engineers can learn from their experiences. They write in mission logs and journals about their daily activities and experiments, take lots of photos and videos, and record their conversations with mission control. They also follow checklists to make sure they do everything correctly and keep detailed records of their health. After the mission, they write reports and talk about what happened so future missions can be even better. How will you keep track of what you did and learned as an Artemis ROADS III Challenge team?

To learn more about NASA's Artemis missions and how scientists, engineers, and astronauts document their work, check out the resources in the [Getting up to Speed with Artemis](#) document.

Mission Guidance

For this MO, teams should begin by learning about NASA's Artemis Mission to the Moon. You can do this by browsing NASA's Artemis websites, watching Artemis YouTube videos, reading the First Woman graphic novel series, and even playing a game of Lotería.

Team members should document their work, including what they have learned about NASA's Artemis mission, in their own Science & Engineering Notebook (SEN). The SEN will also be used to keep records of scientific investigations, initial and final engineering designs, successes, and failures—anything the team needs to record as they complete their mission! Documentation and evidence of their work can take many forms. This may include written work (in the language they feel most comfortable using), storytelling (audio and video recordings), art (sketches, paintings, models), diagrams, data tables, and more.

Teams will not submit all of the documentation recorded in their SENs to NESSP. Instead, team members will work together to select the most relevant information from their SENs and tailor it to tell the story of their mission in a team Mission Development Log (MDL). In other words, they will demonstrate how they met the mission objective deliverables. An MDL Google Slides template is provided, along with instructions on modifying the template in multiple formats. Teams can assign a lead to document the team's work for each MO in the MDL. However, all team members should contribute to compiling the MDL and take turns being the lead documentarian.



A fun way to have students learn about the Challenge is through an Artemis-themed game of Lotería, a well-known game from Mexico similar to Bingo. Download the game and learn how to play in the Companion Course Lesson 1 [Explore](#) Section.

Students and their families possess a wealth of knowledge, skills, and resources from their homes and cultural activities. We refer to these as 'funds of knowledge.' Team members are strongly encouraged to utilize their funds of knowledge during the Challenge and to document them in their MDL. For assistance in identifying each team member's funds of knowledge, refer to the [Elaborate](#) section in the associated Companion Course lesson.

Deliverables

At the end of the Challenge, teams will only send a Mission Development Log (MDL) to NESSP which summarizes what they did for each MO. The end of each MO lists the "Deliverables" that must be included in the MDL. For MO-1, the 'Deliverables' list explains what each team needs to know to start their MDL.

MO-1: What must be in your Mission Development Log (MDL)?

Every MDL must:

- Use the MDL template
- Include title slide/page with:
 - team name (in the team's preferred language),
 - team number (provided by NESSP during registration),
 - team member's names,
- Include a short team member biography and a completed 'Funds of Knowledge' table.
- Describe every division-appropriate deliverables for each mission objective completed
- Be 50 slides or less (including 9 blue MO directions slides, see template for details)
- (optional) A team photo and completed NASA Media Release Forms