

Moon, Mars and Beyond

Lesson Plan Overview

Briefing	
Lesson 1: Introduction & Overview of Teams (Required)	Describes the Moon, Mars, and Beyond scenario. Describes the team tasks for the Communication, Transmissions, Navigation, and Cargo Specialists.
How To Apply	
Lesson 2: Application (Required)	Describes the school application process and guides the student through individual applications; reviews career information and how to apply for the mission. Students design a mission emblem to represent their school, class, planet team, or task team. (Mission Patch design is Optional)
Training/Mission Prep	
Lesson 3: Mission Prep Understanding Distance in Space (Optional)	Lesson plan with teacher and student worksheets; Reviews vocabulary for distance in space, measurement units and instruments, and creates a scale for modeling distances to planets.
Lesson 4: Memorizing the Planets in Order and Size (Required)	Creates a mnemonic device for remembering the names of the planets in order from the Sun and in order for size.
Lesson 5: Decoding Activity (Required)	Lesson plan with symbol code for words; reviews using codes to represent words in a message. Students practice decoding for mission task.
Lesson 6: Metrics and measurements (Optional)	Students generate a map of their classroom and identify specific locations on the map. Reviews map scales and map symbols.
Lesson 7: Coordinate Graphs (Required)	Students learn the parts of a coordinate graph and how to plot points of an ordered pair; students also learn the importance of coordinate graphs in finding locations.
Lesson 8: Reading and Listening for Information (Optional)	Students practice reading and listening skills to improve their ability to get accurate information for their mission tasks.
Lesson 9: Aircraft Construction-Task Card Activity (Optional)	Students practice reading directions and using Task Cards to construct paper models of NASA aircraft.
Lesson 10: Cargo Activity Practice (Required)	Students practice skills needed for Cargo Team tasks by calculating the amount of food and water needed by their family for a trip to and from the beach.
Lesson 11: Planetary Trading Cards (Required)	Students gather information on the 9 planets and construct cards to learn major characteristics and features of the planets.
Lesson 12: Planetary Posters (Required)	Students use their Planetary Trading Cards to construct a poster to compare and contrast major features of the planets. Students will use this poster during the Moon, Mars and, Beyond Mission.
Lesson 13: Outpost Communications Exercise (Optional)	Students use context clues within letters to determine the location of mission specialists writing status reports. Students use prior knowledge and their Planetary Trading cards to figure out the location of the planet.