	Unit and Lesson Guiding Question	**Teacher Notes**
Unit 1: Mission Planning	*How do we figure out where to go and what to do when planning a mission to another body in the solar system?*	
L1: Setting Mission Objectives	*How does the mission we are planning fit into NASA's larger set of exploration questions?*	
L2: Communication in Complex Projects	*What communication skills and formats are necessary for teams to plan successful, long-term, complex projects?*	
L3: Documenting the Mission	*Why is clear written documentation so important to planning successful, long-term, complex projects?*	
L4: Mapping Other Worlds	*How can we create a model of our target landscape to help us rehearse our mission?*	
Unit 2: Planetary Geology	*How can Earth's features and classroom experiments help us understand how features on Earth and other solar system bodies were formed?*	
L1: Geology Rocks	*What can we learn about massive objects like planets by observing small things like rocks?*	
L2: Crater Formation	*What forces form craters and how do craters change over time?*	
L3: Landform Dynamics	*What forces create various landforms, and how long does that formation take?*	
Unit 3: Astrobiology	*How can what we know about life on Earth guide us to other places in the solar system where life may exist now or may have existed in the past?*	
L1: Planetary System Interactions	*How do the four major planetary systems (atmosphere, geosphere, hydrosphere, and biosphere)*	

	influence and control each other here on Earth?	
L2: Follow the Carbon	*What can measuring the amount and forms of carbon in an environment tell us about the life there?*	
L3: Extreme Environments	*What can we learn from extreme environments on Earth to plan where and how to look for life on other planetary bodies?*	
L4: Evidence of Life	*How does NASA look for evidence of past or present life?*	
Unit 4: Robotics and Drones	***How can robotic systems aid in the exploration of our Earth and other solar system objects?***	
L1: Human and Machine Communication	*What are different ways robotic systems communicate, and what are their limitations?*	
L2: Drone Development	*How can we modify and test our drone to make sure it can complete its mission objectives?*	
L3: Programming & Robots	*How can different programming commands be used to help the rover complete its objectives?*	
L4: Mission Integration and Iteration	*How does bringing all parts of a complex mission together for rehearsal lead to better mission outcomes?*	
Unit 5: Final Mission and Communication	***How can we use a successful scale model rehearsal and completed MDL to convince our clients to fund the full mission?***	
L1: Executing and Evaluating the Mission	*How successful was our mission compared to the original mission goals?*	
L2: Presenting the Mission to Clients	*How can we convince our clients that our scale-model mission was worthwhile?*	