## **Exploring and Studying the Stars**

What do you know about astronomy and space travel? Here is your chance to find out.

You are the leader of a four-member team of astronauts. You receive your orders at mission headquarters at the beginning of the game. The orders—make your way to a distant planet, set up a study station, and collect samples. Someone will stay behind to work at the station while the others go back to mission headquarters with the samples and report on what will be necessary to send the next mission.

## **Preparing the Game**

- 1. Attach two file folders together by overlapping one side so you have three parts to glue the game board to. Attach the game board to the three parts of the file folders, matching the spaces on the board and trimming the pages if necessary to make them meet in the correct places.
- 2. Print and cut out the question cards. If they are printed on cardstock or printed on paper and laminated, they will hold up longer, but they can be used just as easily if printed on regular copy paper. There is also one page of blank cards so that you may add your own questions to the game.
- 3. Print and cut out the tokens that you will need to play the game. The pages of tokens provided will be enough for four players, with a few extra in case any are lost. Print additional sheets as necessary. There is also a blank token sheet if you would rather make your own than print the color ones provided. As players move around the board, they will acquire tokens representing three additional team members, four food supplies, four extra fuel supplies, one habitation, one communications array, one land vehicle, one lander, one launch vehicle, and one return vehicle.
- 4. Use one die. Choose something such as beans or tokens from another game as markers.
- 5. Each player takes one astronaut token to represent themselves and one set of mission orders.
- 6. Place markers on mission control (start). Shuffle the question cards and put them in a stack on the board or beside the board.

## **Playing the Game**

## **Phase One: Forming Your Team and Collecting Supplies**

1. When each player is ready, the game begins. In this game, you cannot move more than three spaces each turn. If you roll a one, two, or three, move that number of spaces. If you roll a four, move one; if you roll a five, move two; and if you roll a six, move three.

Conduct tests to determine if shielding is adequate for solar radiation.			-	
	Å			Leave mission headquarters once
				all items have been collected; otherwise, keep collecting.

What is the name of a group of objects outside the orbit of Neptune?  Answer: Kuiper belt	Name two of the first objects to be classified as dwarf planets in the Kuiper belt. Answers could include Pluto, Eris, Makemake, and Haume	What is the name of the measurement related to light that is shorter than a parsec and describes distance between stars?  Answer: light-year	
What is an unpiloted spacecraft that carries scientific instruments called?  Answer: probe	What is the name for a planet that orbits a star outside the solar system?  Answer: exoplanet	What is the name of a natural object in space that orbits the Earth or another celestial body?  Answer: satellite	
What is rock or metal that orbits the sun called?  Answer: asteroid	What is the star at the center of our solar system that gives off light, heat, and other energy?  Answer: sun	What is the layer of the sun where energy bounces around in spaces in the layers of gas?  Answer: radiative zone	
What is the layer of the sun where the heat moves by making convection cells "boil"?  Answer: convection zone  What is the name for the sun, planets, and all other celestial bodies that orbit the sun?  Answer: solar system	What is the layer of the sun between the chromosphere and corona that gives off ultraviolet light?  Answer: transition region  What is a man-made object that orbits the Earth or another celestial body called?  Answer: artificial satellite	What is the path one object takes as it goes around another?  Answer: orbit  What is an icy body that travels around the sun and commonly has a "tail" made of gas and dust?  Answer: comet	
What color is used to refer to the brightest and hottest stars, class B and class A stars?  Answer: blue star	What color of star is Spica classified as?  Answer: blue star	What color of star is Rigel classified as?  Answer: blue star	

