

## Destination Moon

1. What happened to the first rocket shown?  
+
2. How long have the people been working on the rocket?  
+
3. How high did the scientist want to put a satellite?  
+
4. Where is the next rocket going?  
+
5. What kind of rocket engine will be used?  
+
6. General Thayer says that the new nuclear-powered engine developed by Cargraves ejects gas at 30,000 feet per second. Convert this speed to miles per second. How does this speed compare to the escape velocity of 7 miles per second from the Earth?  
+
7. a. What is the acceleration in feet/sec/sec, if it takes 2.5 min. to achieve escape velocity?  
+
8. b. What is the g-force then during take off? ( $1g=32 \text{ ft/s/s}$ )  
+
9. c. Convert 7 miles/second into miles/hour.  
+
10. 8. The shielding protects the crew from \_\_\_\_\_.  
9. Who stars in the cartoon?  
+
11. 10. What do rockets use to fly?  
+
12. 11. How far is the Moon from Earth?  
+
13. a. If it takes 2 days to get there from Earth, what is the average speed of the trip in miles/day?  
+
14. b. What is the average speed in miles/hour?  
+
15. 12. The Moon has no \_\_\_\_\_.  
13. What is the most important military fact of the century?  
+
16. 14. What does the commission do to try and stop the rocket?

- + 15. There is no law against doing \_\_\_\_\_.
- 16. Why can't Brown go on the trip?
- + 17. Joe saw workers filling the rocket's fuel tanks with \_\_\_\_\_.
- + 18. What happens to the men during take-off?
- + 19. When are the people weightless?
- + 20. According to the video, will a rocket ship work on the same principle in outer space as in the Earth's atmosphere?
- + 21. During the lift-off of the spacecraft, does it's rocket emit a flame?
  - a. In view of the propellant used, should the rocket have emitted a flame?
- + 22. Cargraves tells Sweeney that there is no danger of falling off the spacecraft. Why did he say that?
- + 23. What do they use to save the man who "fell" off the ship?
- + 24. Does the video show the astronauts to have trouble swallowing a pill in the absence of gravity?
  - a. Can a human swallow a pill standing upside down?
  - b. Does your answer to the second question contradict what the video asserts about swallowing?
- 25. How do you think the people on the spaceship can tell where the cities are?
- + 26. Why is the radar stuck?
- + 27. How fast does the spaceship appear to be traveling?
- + 28. How did the man become "adrift"?
- + 29. How long does the video say it will remain midday on the Moon?
  - a. How long is one "day" on the Moon?
- + 30. How do they land the ship on the Moon?
- + 31. For whom do the astronauts claim the Moon?
- + 32. How much of a time lag is there between the Earth and Moon by radio?
- + 33. Why is there a time lag with the lunar discussion?
- + 34. How long will it take light at a speed of 186,000 miles/sec to travel 240,000 miles?
- + 35. How big is the spaceship relative to the height of the one of the crewmen?

a. Estimate your answer based on when the spaceship is on the Earth, the Moon, and in outer space.

+

b. Are all your estimates the same?

36. Dry Wells says that it will track the spaceship for as long as possible. Why can't it track the spaceship all the way to the Moon?

+

+

37. What is the Moon's surface like?

+

+

+

38. How big does the Earth appear to be from the Moon?

+

39. What is the gravity on the Moon compared to that of the Earth?

a. What would a 200 pound person weigh on the moon?

+

+

+

b. What would be the weight of the telescope camera on the moon?

+

+

40. What tool does the General use to investigate the rocks?

+

41. Why don't Joe and Cargraves know which way to look when the General calls?

+

42. What does the crew do when they find out they don't have enough fuel to return?

+

a. Why would this help?

+

+

43. What season is it in the United States on their return?

a. How can you tell?