

THE HISTORY CHANNEL CLASSROOM STUDY GUIDES

Modern Marvels

Space Shuttle

For generations, scientists and science-fiction writers alike dreamed of a reusable “space plane”—a durable maneuverable ship that would make trips to the heavens commonplace. Now, *Modern Marvels* takes a look at how a team from NASA made that dream real by developing the most extraordinary machine in history—the revolutionary Space Shuttle. *Space Shuttle* would be useful for classes on Science, Technology, And American History. It is appropriate for middle school and high school.

- [alienate](#)
- [approximate](#)
- [benign](#)
- [bravado](#)
- [cuisine](#)
- [dissipate](#)
- [elaborate](#)
- [facilitate](#)
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- [perception](#)
- [pinnacle](#)
- [poised](#)
- [practicality](#)
- [propellant](#)
- [refurbish](#)
- [resounding](#)
- [sabotage](#)
- [unprecedented](#)

Discussion Questions

1. Humans have always looked to sky and tried to emulate flight. Why are humans so intrigued by flight?
2. Discuss some of the early attempts and failures at human flight.
3. Why was Robert Goddard a true American pioneer? What was his role in aviation advancement?
4. In 1957, the Soviet Union launched Sputnik, a small satellite. What was the American reaction to this first satellite?
5. How did Cold War anxieties fuel the space race between the United States and the Soviet Union?
6. Explain the saying “progress is built on failure as well as success.” What are some examples of this?
7. The space shuttle is different than any other space vehicle that came before it. How is different? What are the advantages of the shuttle?
8. One of the most dangerous aspects of space travel is the enormous heat generated upon reentry into the earth’s atmosphere. How does the shuttle eliminate this problem?
9. NASA technicians subject shuttle crews to simulated in-flight problems. How do these simulated malfunctions prepare the crew for their actual flights?

10. How do astronauts experience the daily routines of sleeping and eating in the space shuttle?
11. Why did the Challenger explode?

Extended Activities

1. Design a space shuttle for the 21st century.
2. Imagine that we could sustain a colony or city on the moon or another planet. Create such a city.