

Moon Landing

Write the following two phrases on the board and ask your students if they know what they refer to:

Apollo 11

July 20, 1969

Explain that about 50 years ago the United States sent a manned mission to land on the moon. Have students fill out the Apollo Moon Landing activity page provided below, in which they will think about how the space mission might have been part of the Cold War and how important it is to our country.

When students are finished, discuss their responses. Clarify that the Cold War was a 40-year contest for superiority between the United States and its allies against the Soviet Union (today's Russia) and its allies. In 1961, when the Soviets sent a manned mission into flight around the earth, American leaders worried that they were lagging behind. The US government spent a lot of time and money trying to land a man on the moon before the Soviets could, and on July 20, 1969, they succeeded. Half a billion people around the globe watched the event on TV, or 14 percent of the world's population in a time when there were far fewer televisions. Many others listened to radio broadcasts of the event.

Have your students watch or read one or all of the following:

President Kennedy's Speech to Congress on May 25, 1961, plus additional links (NASA)

history.nasa.gov/moondec.html

President Kennedy's Speech at Rice University on September 12, 1962, plus additional links (NASA)

er.jsc.nasa.gov/seh/ricetalk.htm

Footage of the Apollo moon landing on July 20, 1969

www.sciencekids.co.nz/videos/space/moonlanding.html

Newly restored video footage of the first moon landing—National Geographic

video.nationalgeographic.com/video/news/space-technology-news/1969-moonlanding-vin/

NASA page for the Apollo missions (photos, videos, information)

www.nasa.gov/mission_pages/apollo/index.html

Put the following questions on the board and assign students to write 2–3 paragraphs about them, along with any additional thoughts they have about the moon landing and the country's space program. Some additional research may be required.

- How would it have felt to be a young person watching the moon landing in 1969?
- Why was the moon mission such a source of national pride?
- How challenging would the mission have been back in a time when people didn't have color TV and the spaceship's computer was simpler than the average cell phone today?
- Should we try to send a manned mission to Mars?

Ask students to share their ideas in a class discussion. Help them find out from a technical standpoint what had to happen to make the rockets work, the spaceship reach the moon, and the astronauts return safely to earth. These sites are a good starting place:

<http://science.howstuffworks.com/apollo-spacecraft.htm>
(Some ads)

<http://www.space.com/17411-apollo-11-moon-landing-explained-infographic.html> (Ads)

Let students know that today NASA is part of a project called the International Space Station (ISS). Students can conduct online research to find out more about what astronauts are doing on the space station and what countries are involved. Also, NASA would like to send a manned mission to Mars, but so far US government leaders have not been willing to fund such a project. In the meantime, NASA has sent out satellites, probes, and a Mars rover to explore our solar system and beyond. What other projects is NASA working on? Why do humans explore space? Should we continue to spend some of our country's money funding NASA's work? Why or why not?

EXTENSION: Some people believe that the moon landing was fake. Books have been written and movies have been made about their theories. Have students find out more about the conspiracy theories and rebuttals, then conduct a class debate. What evidence is given for the argument that the moon landing wasn't real, and how do others debunk their ideas? Why do some people want to prove that the moon landing never happened? What do your students think about the conspiracy theories?

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During the 1960s the American government wanted to send astronauts to the moon. Why do you think they set this goal?

Read the following quotation and explain why the Apollo 11 space mission is considered part of the Cold War between two superpowers, the United States and the Soviet Union.

Recognizing the head start obtained by the Soviets with their large rocket engines, which gives them many months of lead time, and recognizing the likelihood that they will exploit this lead for some time to come in still more impressive successes, we nevertheless are required to make new efforts on our own. For while we cannot guarantee that we shall one day be first, we can guarantee that any failure to make this effort will make us last. . . . But this is not merely a race. Space is open to us now; and our eagerness to share its meaning is not governed by the efforts of others. We go into space because whatever mankind must undertake, free men must fully share.

—President John F. Kennedy, in a speech to Congress on May 25, 1961

What other reason does President Kennedy give for trying to send astronauts to the moon?

Some people argue that space exploration is very expensive and not particularly useful. Explain whether you agree or disagree. Give evidence and examples to support your thinking.
