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Moon Walk

Resources

To enhance this study for your students, the following resources are recommended:

Books to Read Aloud

First on the Moon (an I Was There book) by Barbara Hehner (The Madison Press, 1999).

Floating in Space by Franklin M. Branley (HarperCollins Publishers, 1998).

Spacebusters: The Race to the Moon (an Eyewitness Reader) by Philip Wilkinson (DK Publishing, Inc., 1998).

Videos

The NASA Space Station (United Feature Syndicate, Inc., 1988) 25 minutes.

Charlie Brown, Snoopy and the whole Peanuts gang show what it's like to live in space. Especially good for helping children see what weightlessness is like.

Blue Planet (Warner Home Video) 42 minutes.

Excellent photos of Earth from space. You may want to show just the first 10-15 minutes of the Earth from an astronaut's viewpoint in space. Much of the rest of the video is about the Earth's atmosphere and man's impact on the Earth.

Web Sites

kids.msfc.nasa.gov

This is NASA's site for kids with interesting pictures and information about astronauts, space suits, rockets and more, including fun games and projects.

www.nasm.edu/apollo

This site provides wonderful photos and video clips of the *Apollo 11* launch and moon landing as well as the other Apollo flights from the National Air and Space Museum.

[www.pbs.org/wgbh/nova/to the moon/explore.html](http://www.pbs.org/wgbh/nova/to%20the%20moon/explore.html)

Interesting 360-degree panorama photos of men on the moon as well as lunar puzzles and questions for older students.

www.historyplace.com/unitedstates/apollo11/index.html

More interesting information and photos about *Apollo 11*, including audio clips of the liftoff, Neil Armstrong speaking and more.

www.spacekids.com/solarsystem/index.html

A virtual space tour, games, photos, information about space missions and even space jokes.



Moon Walk

Space—the New Frontier

In the 15th century Columbus and other explorers went looking for new worlds across the oceans. In the 17th century men and women traveled from Europe to the New World of America to make new homes and towns, and eventually a new nation. In the 18th and 19th centuries citizens of the new United States traveled farther and farther west to settle in the American frontier. In the 20th century people began looking beyond America, beyond the Earth to the new frontier of space.

People always seem to be attracted to the unknown. For centuries they had been looking at the skies, wondering, “What’s out there?” Scientists studied the stars and discovered new planets. Authors like H.G. Wells wrote about imaginary creatures on other planets. But space revealed few of its secrets until the 20th century when improvements in technology allowed people to finally begin to think it might be possible to explore this new frontier.

Movies, TV, books and comic books made space travel look easy, though often dangerous. Then on October 4, 1957, space dreams became reality. The Soviet Union launched the first artificial satellite into space. They called it *Sputnik* which means “fellow traveler.” It weighed 184 pounds and was about the size of a basketball, orbiting (traveling around) the Earth at a speed of about 17,000 miles an hour. People everywhere looked up into the sky to try and see the satellite which appeared like a quickly moving star.

A month later the Soviets launched a second *Sputnik*, this time with a little dog named Laika aboard. Everyone was amazed and excited! Laika was the first living, breathing creature to orbit the Earth. As she ate and slept, and responded to weightlessness, Soviet scientists measured her physical condition. A few days after the launch the dog’s air supply ran out and she quietly died. This was as the Soviets had planned it. They had enough technology to send her out into space but not enough to bring her back.

The American government wasn’t happy that the Soviet Union was first in space. People had looked to America as the leader in world technology. Suddenly, the Soviet Union was ahead of America! Something had to be done, and fast! A few months later on January 31, 1958, America launched its first earth-orbiting satellite, the *Explorer 1*.

Discussion

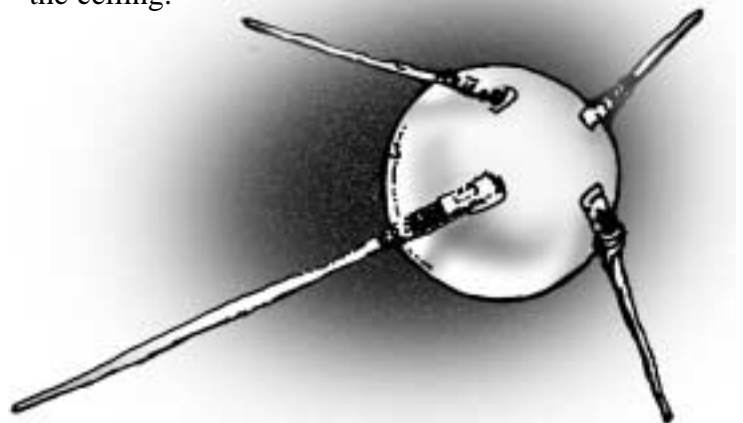
Why do you think America was in such a hurry to catch up to the Soviet Union? Explain the “Cold War” going on between the two countries in the 1950s which was considered a contest between communism and democracy. Then briefly explain the differences between the two forms of government.

Handmade Satellites

Make a model of *Sputnik* (below) by sticking four long plastic drinking straws in a Styrofoam™ ball about 4"-5" in diameter. Show this to students. Explain that there was a transmitter inside and the four antennas sent “beep” signals back to Earth as *Sputnik* orbited the Earth so they could track its movements.

After discussing the simple but effective design of *Sputnik*, challenge students to create their own satellites. Provide Styrofoam™ balls of various sizes and other craft materials such as straws, stir sticks, foil, paint and paintbrushes, construction paper, cardboard, glue, scissors, etc.

When the satellites are done, ask students to hold them up and explain how they work. Then hang them from the ceiling.



Moon Walk

The First Astronauts

America jumped into the race for space and immediately began planning to send men into space. But who would they be? No one was trained for it, so the closest candidates were chosen—military test pilots. There were lots of volunteers, but only 110 met these space agency standards:

- No taller than 5' 11"
- Weigh less than 180 pounds
- Under 40 years of age
- Male

Out of those 110 men, seven were chosen to be the first astronauts. They were trained on machines that shook them, made them weightless and went underwater challenging them to escape and swim to the surface. They were taken to remote areas and left alone with just a little water and survival gear. Nobody knew what problems might occur in space. The astronauts had to learn how to use their wits to survive in every conceivable situation.

Chimp in Space

Before sending a man into the dangers of space flight, America wanted to test things a little further. On January 31, 1961, a chimp named Ham was launched into space on a test flight. Several things went wrong and by the time recovery helicopters reached the space capsule which had landed in the ocean, the capsule had so much water in it the chimp was almost drowned. He apparently tried to bite anyone who came near him, including his rescuers! But the chimp survived.

Because of the problems of the chimp's flight, another test flight was launched before sending a man up. This time the flight was perfect.



Rocket Launch Action Rhyme

Teach students this rhyme and let them act it out.

Rocket on the launch pad,

(Squat down with hands pointed overhead.)

Almost time to go,

(Pretend to look at watch.)

Listen to the countdown,

(Cup ear with hand.)

See the crowds below.

(Shade eyes with hand and look down.)

Suddenly a blast of noise!

(Put hands over ears.)

Smoke is every place!

(Wipe eyes with fists.)

Boom! The rocket blasts off!

(Jump up high with hands pointed overhead.)

The first chimp in space!

(Jump around and scratch sides like a chimpanzee.)

The First Men in Space

Less than three months after America sent Ham the chimp into space, the Soviet Union sent the first man into space. His name was Yuri Gagarin, and he became an instant hero all over the world. The Soviets had beaten the Americans in the space race again! The headline of one newspaper said:

SOVIETS SEND MAN INTO SPACE;

SPOKESMAN SAYS U.S. ASLEEP

It was only about three weeks later when Alan Shephard became the first American astronaut to go into space. It was a short flight, less than half an hour, but it was a success. Yuri Gagarin's flight had been longer and he actually orbited the Earth, but his space ship was automatically controlled. Shephard had manual control of his craft, the *Mercury-Freedom 7*, for part of the time. America's new hero was Alan Shephard, and everyone could hardly wait to see what would happen next.