

# Space Exploration



1. Know and discuss who each of these people were and their contribution to space exploration:
  - a. Robert H. Goddard
  - b. Hermann Oberth
  - c. Wernher Von Braun
  - d. Galileo Galilie
  - e. Neil Armstrong
  - f. Sally K. Ride
  - g. John Glenn
  - h. Yuri Gagarin
  - i. Laika
  - j. Sam
  - k. Valentina Tereshkova
  - l. Alan Shepard
2. Explain what these acronyms stand for:
  - a. NASA
  - b. VAB
  - c. EVA
  - d. STS
  - e. EMU
  - f. MMU
3. Describe each of these space programs:
  - a. Mercury
  - b. Gemini
  - c. Apollo
  - d. Skylab
  - e. Space Shuttle
  - f. Apollo-Soyuz
4. What was Sputnik?
5. The Apollo 8 astronauts were in lunar orbit on Christmas day, 1968. They each read from a book, and their readings were broadcasted back to Earth. What was the name of the book?
6. Earn the Star Honor.

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## Space Exploration Answers

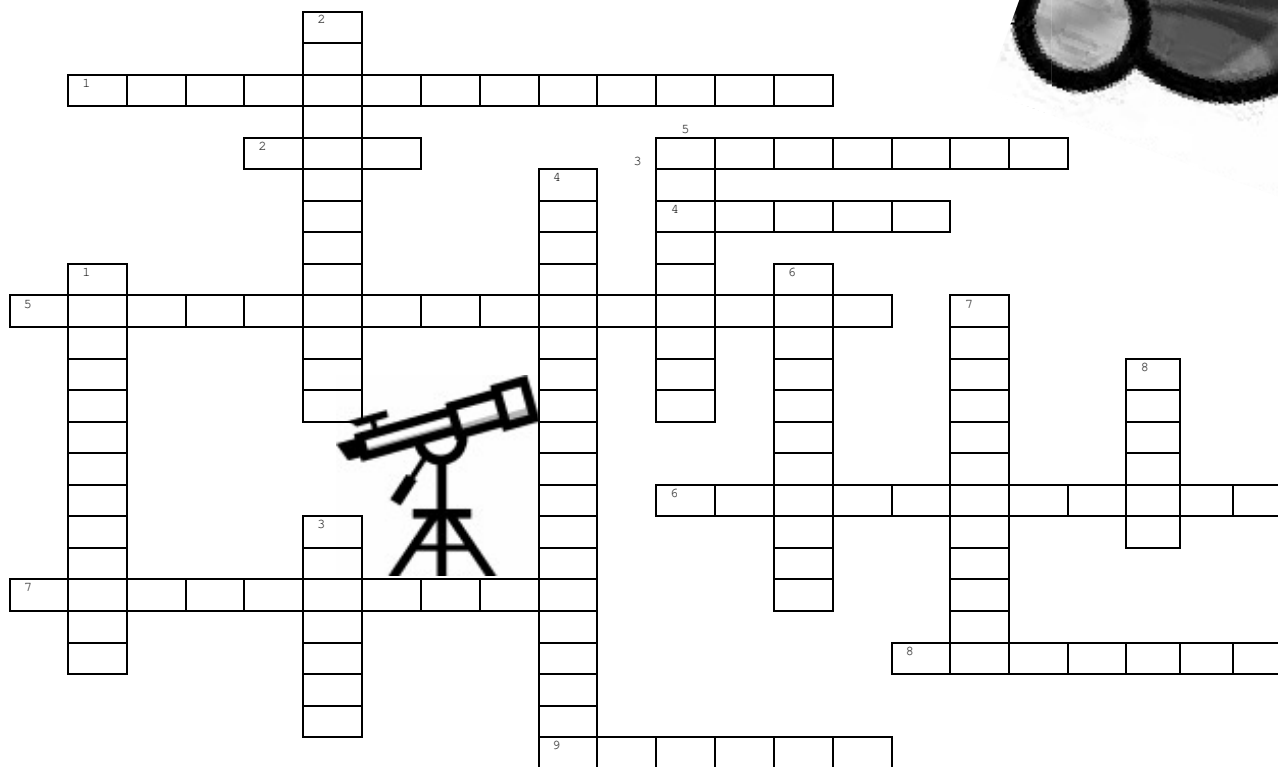
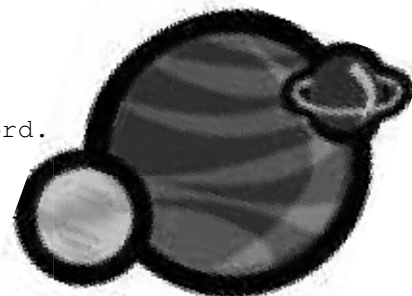
1.
  - a. Robert H. Goddard was the first man to develop a rocket using liquid fuel and he also invented the first gyro-steering system for rockets.
  - b. Hermann Oberth was a mathematician and a physicist who worked on the formulas for the first liquid fuel used in rockets.
  - c. Wernher von Braun launched the first multistage rocket.
  - d. Galileo Galilei was an astronomer who invented the telescope.
  - e. Neil Armstrong was the first man to walk on the moon.
  - f. Sally K. Ride was the first American woman to go into space. She was on STS-7 in June 1983.
  - g. John Glenn was the first American man to orbit Earth. He orbited Earth three times on February 20, 1962,
  - h. Yuri Gagarin was a Soviet cosmonaut and the first man in space. He was launched into space on April 12, 1961. His trip lasted 108 minutes.
  - i. Laika was the first animal launched into space. Laika was a Soviet dog.
  - j. Sam was the rhesus monkey that America launched into space. Sam's name stood for "School of Aviation Medicine."
  - k. Valentina Tereshkova was the first woman in space. She was a Soviet cosmonaut and went into space in June 1963.
  - l. Alan Shepard was the first American to go into space. He was launched on May 5, 1961.
  
2.
  - a. NASA - National Aeronautics and Space Administration
  - b. VAB - Vehicle Assembly Building
  - c. EVA - Extra Vehicular Activity
  - d. STS - Space Transportation System
  - e. EMU - Extravehicular Mobility Unit
  - f. MMU - Manned Maneuvering Unit
  
3.
  - a. Mercury Project - Our first space program. The Mercury program was used for our initial exploration of space. Each mission had only one man aboard.
  - b. Gemini was our second space program and was designed to further explore our possibilities. Each mission contained two crew members.
  - c. Apollo missions were aimed at exploring the moon and then, landing a man on the moon. Three men were on each mission and, in all, a total of 12 men walked on the moon.
  - d. Skylab was a functional laboratory in space where astronauts tested man's ability to live and work in space. There were three Skylab missions, with the longest mission lasting 84 days, in November 1973.
  - e. Space Shuttle was America's first reusable transport into space.
  - f. Apollo-Soyuz was a joint mission between the US and the Soviet Union. Two spacecrafts were launched from two different countries and hooked up in space. The two spacecrafts hooked up together through a docking module and were joined for two days.

## **Space Exploration Answers Cont.**

4. Sputnik was the first satellite to be placed in Earth's orbit. The Soviet Union launched it in October 1957. It transmitted pressure and temperature information and stayed in orbit for 22 days. They were three successful Sputnik missions.
5. The Apollo 8 astronauts read from the book of Genesis in the Bible.

## SPACE EXPLORATION

Answer the questions & use the answers to fill in the crossword.



### Across

1. First man to develop a rocket using liquid fuel.
2. The first monkey in space.
3. The first satellite placed in Earth's orbit.
4. The Soviet dog that went into space.
5. Launched the 1<sup>st</sup> multistage rocket.
6. First American to go into outer space.
7. First American to orbit the earth.
8. The book the Apollo astronauts read on Christmas morning.
9. Aimed at exploring the moon and landing a man on the moon.

### Down

1. First man to walk on the moon.
2. Worked on the first liquid fuel used for rockets.
3. Astronomer who invented the telescope.
4. The first woman in space.
5. First American woman in space.
6. Soviet cosmonaut and first man in space.
7. The United States' reusable space transport.
8. A functional laboratory in space.

