



Caladenia



Yuri Gagarin

Hello Everybody,

Above is a picture of Yuri Gagarin, he was a Russian pilot and cosmonaut, who become the first human to travel to outer space in 1961. His capsule Vostok 1 completed an orbit of Earth on the 12th of April 1961. He became an international celebrity and received many awards for his service.

We hope you enjoy this week's pack!

Take Care,

The Caladenia Team

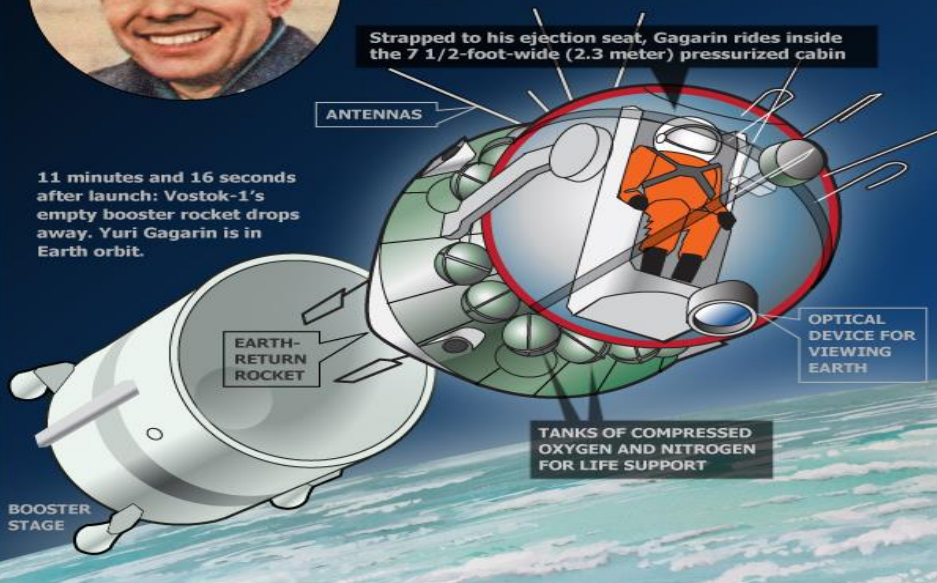
FIRST IN SPACE: VOSTOK-1 PILOT ЮРИ ГАГАРИН YURI GAGARIN



Following seven test flights (several of them failures) carrying animals and equipment, the Vostok spacecraft is deemed ready to carry a human passenger. On April 12, 1961, a 27-year-old Soviet Air Force pilot makes history.

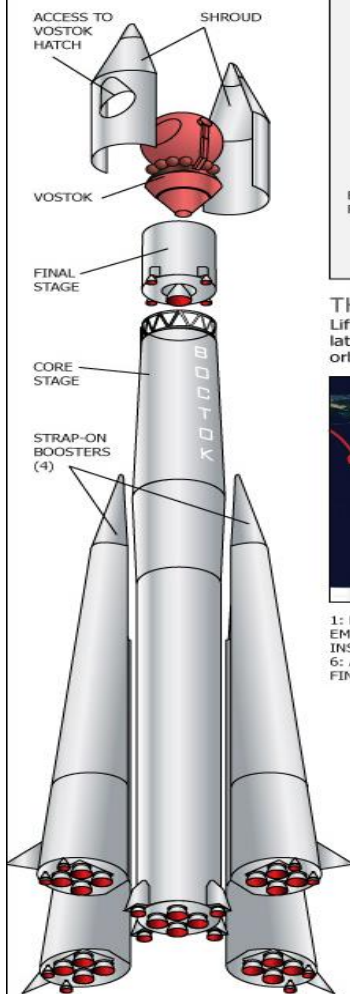
Strapped to his ejection seat, Gagarin rides inside the 7 1/2-foot-wide (2.3 meter) pressurized cabin

11 minutes and 16 seconds after launch: Vostok-1's empty booster rocket drops away. Yuri Gagarin is in Earth orbit.



BOOSTER ROCKET

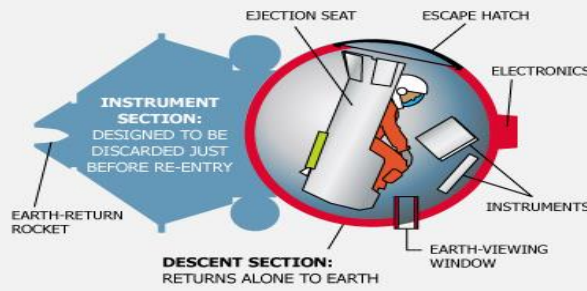
R-7, THE WORLD'S FIRST INTERCONTINENTAL BALLISTIC MISSILE, WAS ORIGINALLY DEVELOPED IN THE 1950s TO CARRY NUCLEAR BOMBS HALFWAY AROUND THE WORLD. A MODIFIED VERSION LAUNCHED SPUTNIK-1 INTO ORBIT IN 1957.



Launch vehicle	Vostok 8K72K
Height overall	101.18 ft (30.84 m)
Liftoff weight	620,325 lb (281,375 kg)
Payload to Low Earth Orbit	10,400 lb (4,730 kg)

INSIDE THE VOSTOK-1 SPACECRAFT

Unlike in later American space capsules such as Mercury, Vostok's pilot was not expected to actually fly the craft. Gagarin was merely a passenger. In case of an emergency, however, he could unlock the manual controls.



THE FIRST HUMAN ORBIT

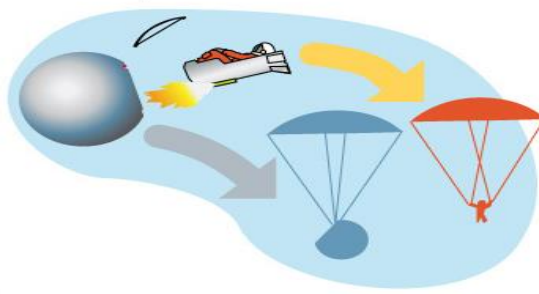
Liftoff came at 9:07 a.m. local time on April 12, 1961. Just 108 minutes later, Gagarin parachuted back to the ground after completing a single orbit of Earth.

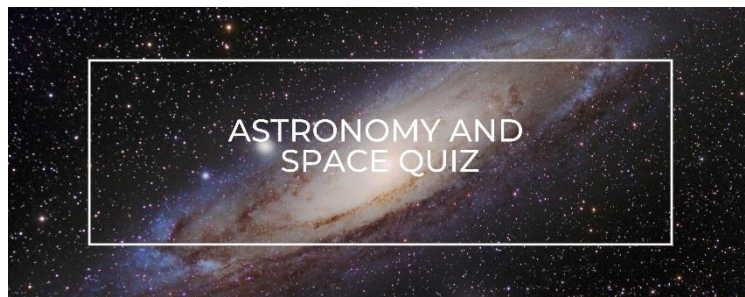


1: LAUNCH. 2: ORBIT ACHIEVED. 3: GAGARIN PASSES INTO DARKNESS. 4: GAGARIN EMERGES INTO DAYLIGHT. 5: ROCKET FIRES FOR RETURNING TO EARTH. THE INSTRUMENT SECTION IS SUPPOSED TO SEPARATE AT THIS TIME BUT DOES NOT. 6: AS GAGARIN RE-ENTERS THE EARTH'S ATMOSPHERE, THE INSTRUMENT SECTION FINALLY SEPARATES. 7: LANDING.

BAIL OUT!

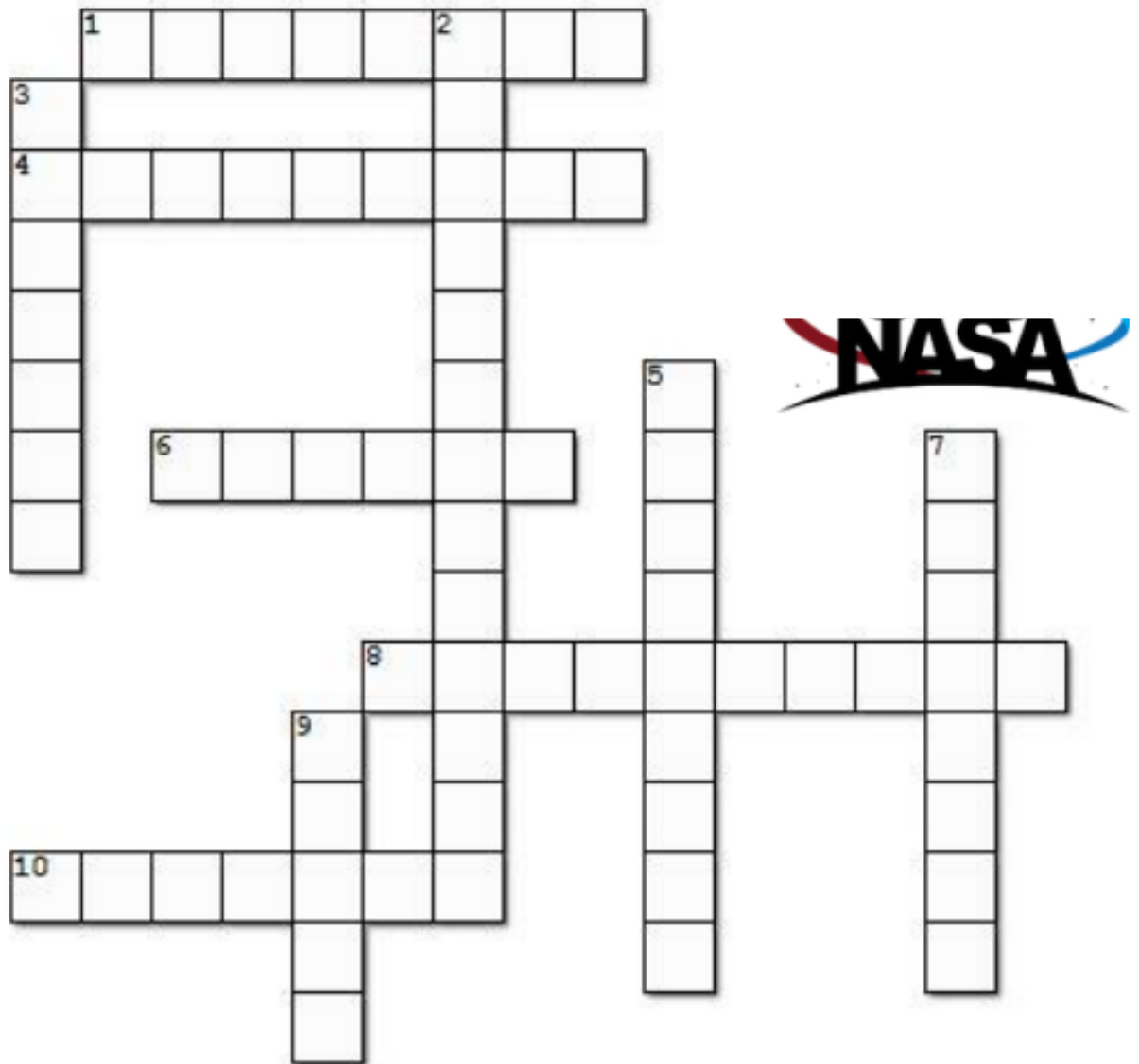
Gagarin was not in his vehicle when he landed. Instead, he ejected at an altitude of about 23,000 feet (7,000 meters). Both Gagarin and his capsule then descended on separate parachutes. This was done for safety reasons, but the Soviet Union kept the fact a secret for decades.





1. Can you name, in the correct order (starting with those closest to the sun), the nine planets in our solar system?
2. Which is the largest planet?
3. What is the study of space called?
4. Which planets have rings around them?
5. What is the name of the Earth's moon?
6. How can astronomers learn the temperature of a star?
7. Which planet is the closest to Earth?
8. What causes a solar eclipse?
9. Which country first launched a satellite?
10. What was the name of the first satellite sent into orbit?
11. What do you understand by the term 'light-year'?
12. Halley's Comet was last seen in 1986; when it will be seen again?
13. What was the name of the first man in space?
14. Which planet is visible with the naked eye?
15. How many Russian astronauts walked on the moon?
16. Which Space Shuttle exploded shortly after lift-off in 1986?
17. Who was the first man on the moon?
18. Earth is in which galaxy?
19. Which is the smallest planet in our solar system?
20. Who was the first man to orbit the Earth?
21. A meteor is also known as: a shooting....

Human Spaceflight



Across

1. Freedom 7 rocket
4. Famous Apollo 8 photograph
6. International Space Station (ISS) predecessor
8. Gemini objective: _____ and dock
10. Number of nations partnering on ISS

Down

2. First astronaut class (two words)
3. First U.S. program to send humans to space
5. Ed White's historic Gemini achievement
7. World's first reusable space vehicle
9. First U.S astronaut to orbit Earth



Yuri Gagarin was the first person to fly in space. His flight, on April 12, 1961, lasted 108 minutes as he circled the Earth for a little more than one orbit in the Soviet Union's Vostok spacecraft. Following the flight, Gagarin became a cultural hero in the Soviet Union. Even today, more than six decades after the historic flight, Gagarin is widely celebrated in Russian space museums, with numerous artifacts, busts and statues displayed in his honour. His remains are buried at the Kremlin in Moscow, and part of his spacecraft is on display at the RKK Energiya museum.

Gagarin's flight came at a time when the United States and the Soviet Union were competing for technological supremacy in space. The Soviet Union had already sent the first artificial satellite, called Sputnik, into space in October 1957.

Before Gagarin's mission, the Soviets sent a test flight into space using a prototype of the Vostok spacecraft. During this flight, they sent a life-size dummy called Ivan Ivanovich and a dog named Zvezdochka into space. After the test flight, the Soviet's considered the vessel fit to take a human into space.

Becoming a legendary astronaut

The third of four children, Yuri Alekseyevich Gagarin was born on March 9, 1934, in a small village a hundred miles from Moscow. As a teenager, Gagarin witnessed a Russian Yak fighter plane make an emergency landing near his home. When offered a chance years later to join a flying club, he eagerly accepted, making his first solo flight in 1955. Only a few years later, he submitted his request to be considered as a cosmonaut.

More than 200 Russian Air Force fighter pilots were selected as cosmonaut candidates. Such pilots were considered optimal because they had exposure to the forces of acceleration and the ejection process, as well as experience with high-stress situations. Gagarin, a 27-year-old senior lieutenant at the time, was among the pilots selected.

On April 12, 1961, at 9:07 a.m. Moscow time, the Vostok 1 spacecraft blasted off from the Soviets' launch site. Because no one was certain how weightlessness would affect a pilot, the spherical capsule had little in the way of onboard controls; the work was done either automatically or from the ground. If an emergency arose, Gagarin was supposed to receive an override code that would allow him to take manual control, but Sergei Korolev, chief designer of the Soviet space program, disregarded protocol and gave the code to the pilot prior to the flight.

Over the course of 108 minutes, Vostok 1 travelled around the Earth once, reaching a maximum height of 203 miles (327 kilometres). The spacecraft carried 10 days' worth of provisions in case the engines failed, and Gagarin was required to wait for the orbit to naturally decay. But the supplies were unnecessary. Gagarin re-entered Earth's atmosphere, managing to maintain consciousness as he experienced forces up to eight times the pull of gravity during his descent.

Vostok 1 had no engines to slow its re-entry and no way to land safely. About 4 miles (7 km) up, Gagarin ejected from the spacecraft and parachuted to Earth. For the mission to be counted as an official spaceflight, the Fédération Aéronautique Internationale (FAI), the governing body for aerospace records, had determined that the pilot must land with the spacecraft. Soviet leaders indicated that Gagarin had touched down with the Vostok 1, and they did not reveal that he had ejected until 1971. Regardless, Gagarin still set the record as the first person to leave Earth's orbit and travel into space.

Gagarin's legacy

Upon his return to Earth, Gagarin was an international hero. A cheering crowd of hundreds of thousands of people greeted him in Red Square, a public plaza in Moscow. A national treasure, Gagarin travelled around the world to celebrate the historic Soviet achievement.

When he returned home, Gagarin became a deputy of the Supreme Soviet of the Soviet Union (the highest legislative body in the Soviet Union) and was appointed commander of the Cosmonauts' Detachment. Because the Soviets did not want to risk losing such an important public figure, they were hesitant about allowing Gagarin to return to space. He continued to make test flights for the Air Force, however.

On March 27, 1968, Gagarin was killed (along with another pilot) while test-piloting a MiG-15, a jet fighter aircraft. He was survived by his wife, Valentina Ivanovna Goryacheva, and two daughters.

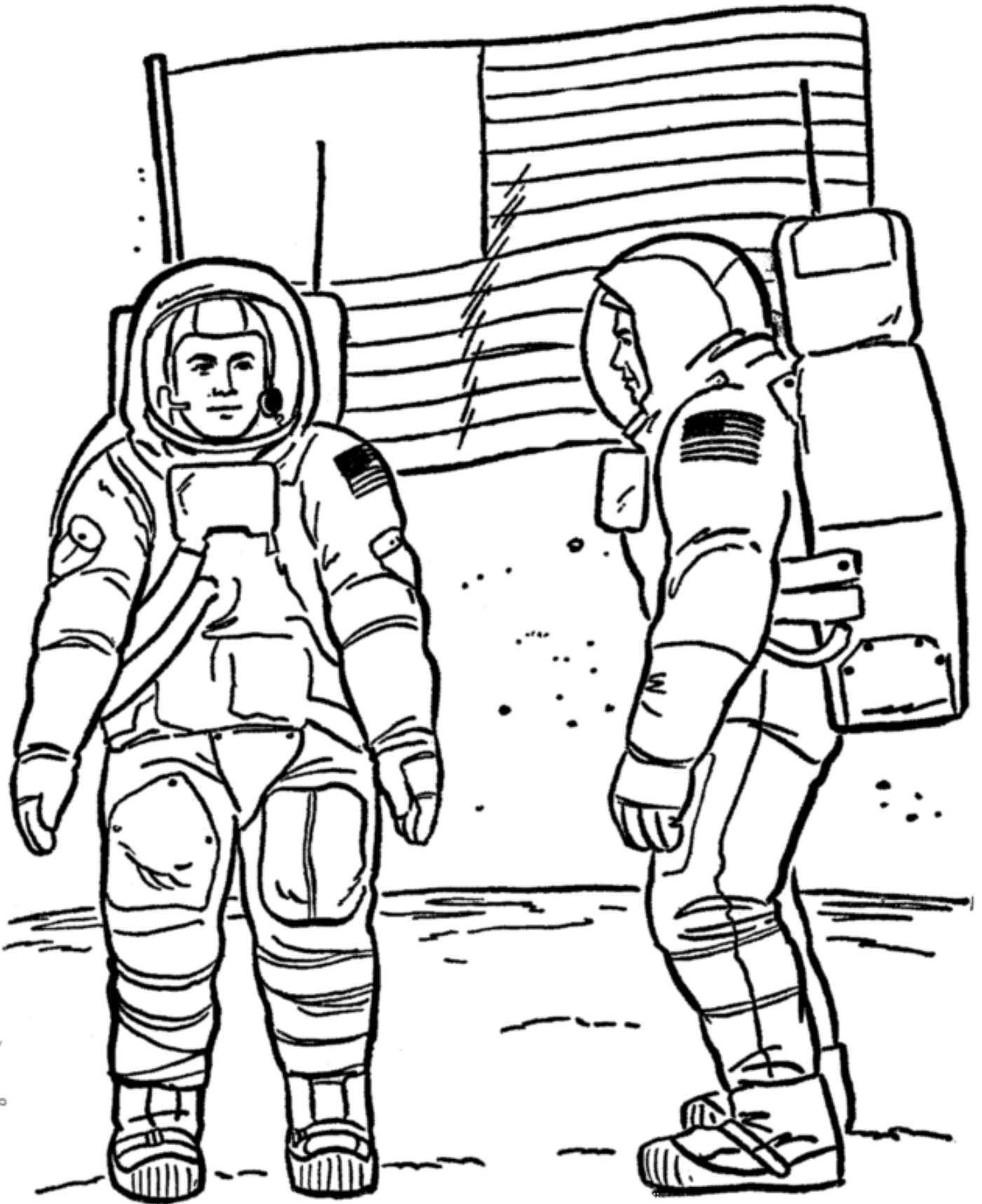
NASA's Apollo 11, the first mission to put people on the moon, landed in July 1969, and the crew left behind a commemorative medallion bearing Gagarin's name. They also left medallions for other astronauts who lost their lives in space or while preparing for spaceflight.

Over time, the U.S. and the Soviet Union began working together in their spaceflight endeavours. The first joint U.S.-Soviet spaceflight was in 1975, called Apollo-Soyuz. Following that, NASA sent several space shuttle astronauts to Soviet/Russian space station Mir after the fall of the Soviet Union in 1991. The shuttle-Mir collaboration paved the way for NASA and the Russian space agency (Roscosmos) to become major partners in the International Space Station program, which first launched modules in 1998 and continues research today.

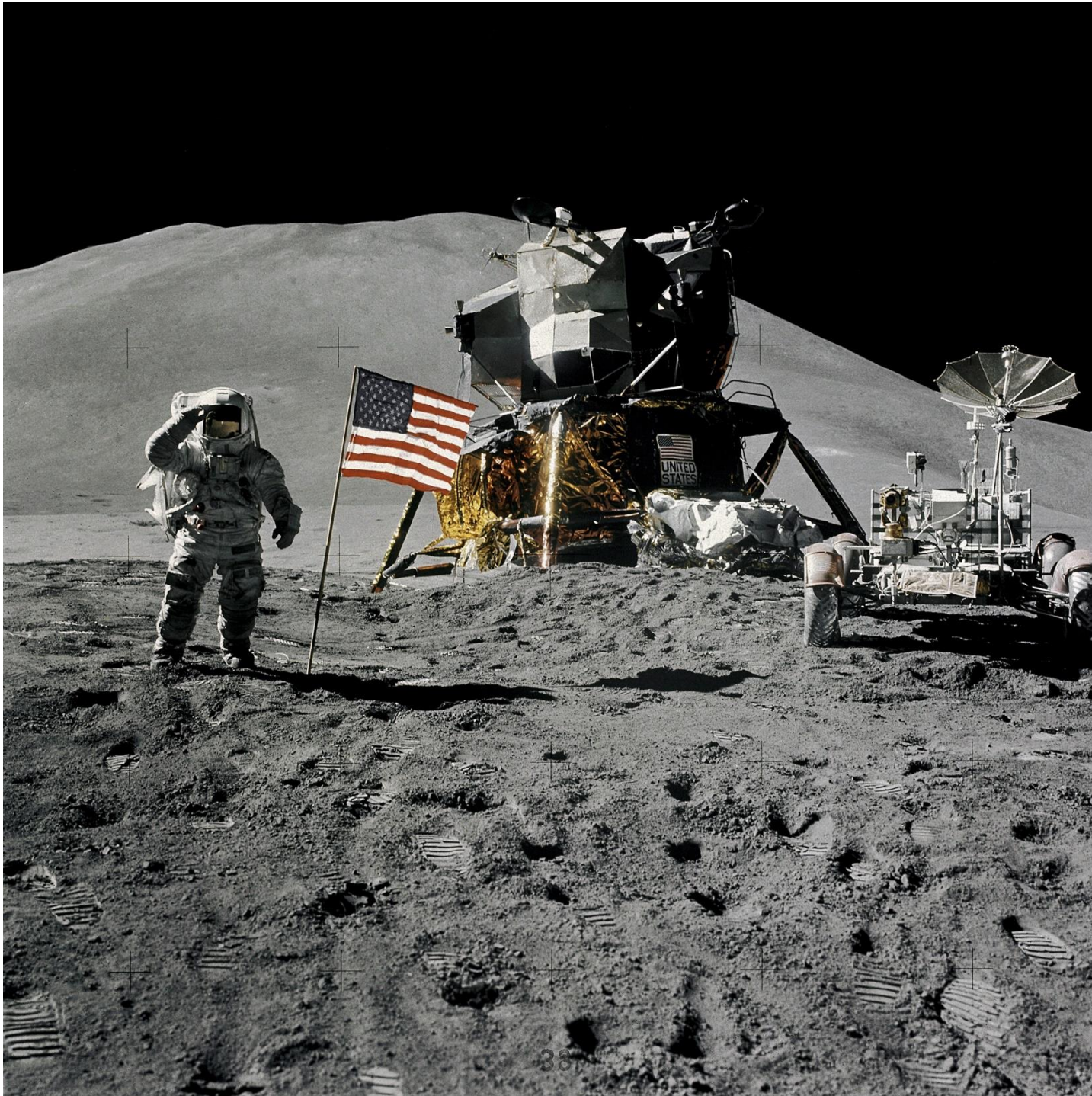
Gagarin's importance in the Russian space program continues. Crews using the Soyuz spacecraft participate in several prelaunch traditions prior to climbing on to the spacecraft — such as urinating on the launch bus tires — to follow in the footsteps of Gagarin's historic flight. Beyond that, Gagarin is often held up as an example of character and heroism to younger children in Russia.

The 60th anniversary of Gagarin's flight will be in 2021. The space community also commemorates Gagarin's achievement every year with Yuri's Night, a celebration that takes place on his launch date of April 12. Yuri's Night was founded in 2001 and attracts thousands of celebrants each year.

Art for Relaxation – Man on the moon



Armstrong and Aldrin plant the US Flag on the moon.



Moon Landing – 1969



1. What does the acronym NASA stand for?
2. Name the first woman in space?
3. Who was the first American in space?
4. Who said: "The eagle has landed!"
5. Who was the first person ever to spacewalk?
6. The Soviet Union launched the first living creature to orbit in 1957; what was it?
7. Who joined Neil Armstrong and Buzz Aldrin on the Apollo 11 mission?
8. How long was the crew of Apollo 11 on the moon?
9. What were Yuri Gagarin's first words in orbit?
10. On what year did Armstrong, Aldrin and Collins land on the moon?
11. Which of the three astronauts in Apollo 11 did not walk on the moon?
12. What is the moon made of?
13. Which side of the moon is the dark side?
14. Where did Apollo 11 land on the moon?
15. Which US President had a goal to: "Land a man on the moon and return him safely to Earth".
16. Which Space Shuttle burned up while re-entering the Earth in 2003?
17. What is Cape Canaveral in Florida (USA) famous for?
18. The Hubble Space Telescope was launched in 1990; what is its function?
19. Only one US President has been at a space shuttle launch. Who was it?
20. How many flights did the Columbia space shuttle make before its tragic ending in 2003?

Space Word Search

Z N O O H U G A S U N D I A L V M B R L
B U C D C B R I H W Z G B E R R A W A C
X F K H E L E C T R O N R N M X C Z W G
X O M F A A S M P M E T E O R N G U Z E
P G H M T C P U T T Y P S U D A X H M J
A E U B O K H Y O C N G A L A X Y J L R
X W S V M H E B L O E A U M F O M O A L
H T C W B O R B B M H C E I H E E T Y K
M B R S D L E A X E D C C L F W T Y Q W
A I F U F E D U I T T E L K B C E A T M
X N V P I Z X R T W Q L I Y I K O J H F
S A S E W X G O J Y E E P W G N R A W L
A R A R B B I R Q X Y R S A K A O N U C
X Y S N X C C A P I W A E Y L K I L B U
T T T O S A T E L L I T E K M P D J Z C
A O E V Q L F I G J W I J I J P S R B K
Q E R A A N D C O S M O L O G Y E E L K
K R O U R V I Q W W Z N F S P U T N I K
C J I A G R U N R P R F E X L T P X C V
O X D M O R B I T C I M W H D A P H B K

Asteroid
Atom
Black Hole
Electron
Orbit

Comet
Aurora
Meteor
Galaxy
Sundial

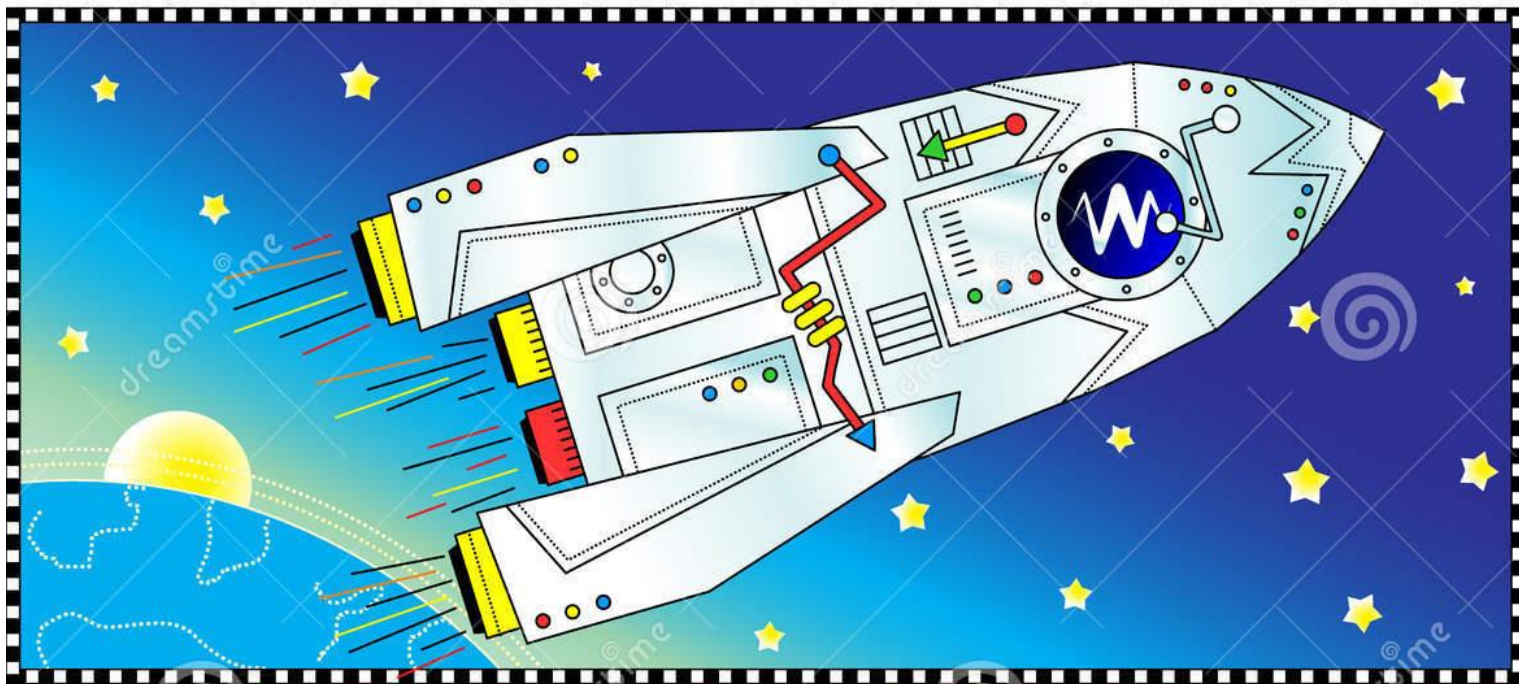
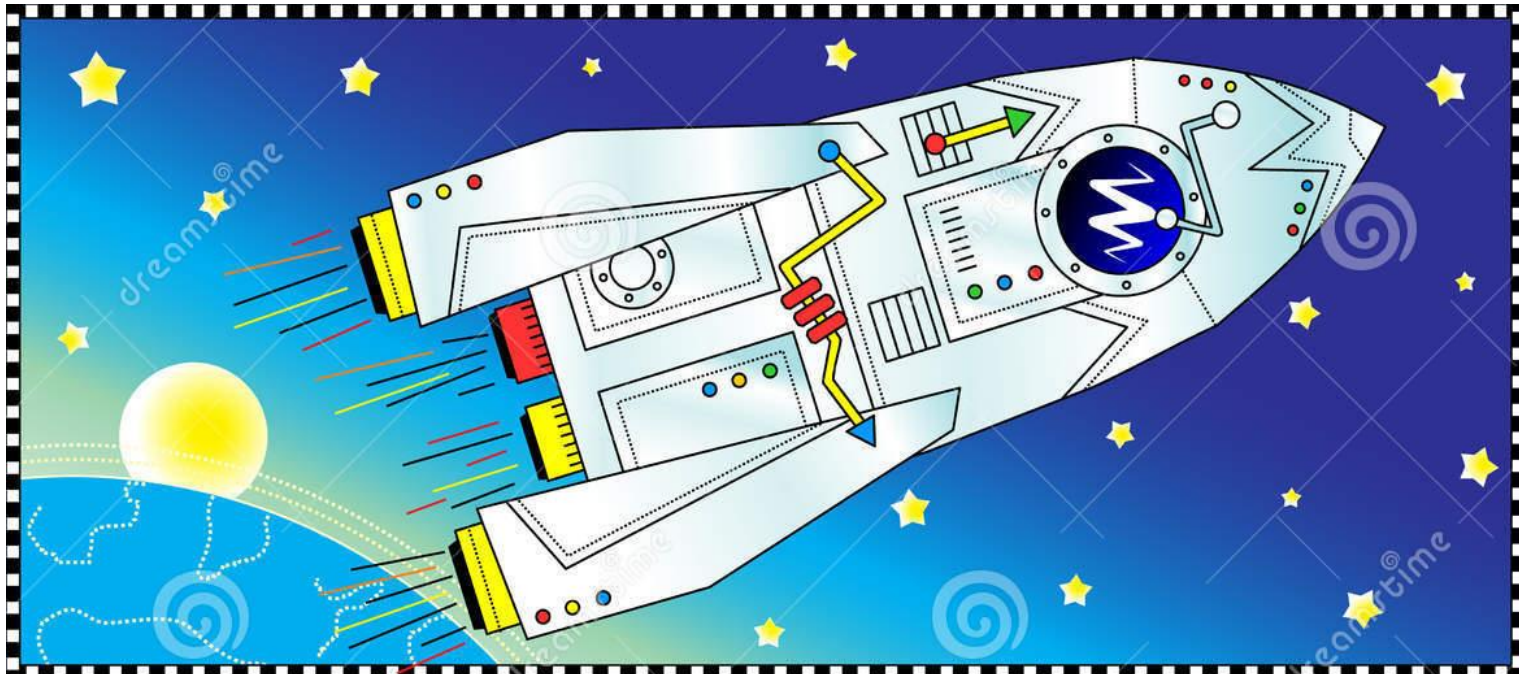
Sputnik
Sphere
Eclipse
Milkyway
Supernova

Acceleration
Binary
Cosmology
Meteoroids
Satellite

Can you spot 5 differences? Look very closely



Can you spot 10 differences?





The Moon Landing

The historic event captivated the world—and helped people look to the future.

On July 20, 1969, millions of people gathered around their televisions to watch two U.S. astronauts do something no one had ever done before. Wearing bulky space suits and backpacks of oxygen to breathe, Neil Armstrong and Edwin “Buzz” Aldrin became the first human beings to walk on the moon.

After the two stepped onto the lunar surface, Armstrong proclaimed these famous words: “That's one small step for a man, one giant leap for mankind.”



On July 16, 1969, the spacecraft Apollo 11 prepared to launch a crew of astronauts to the moon ... and into the history books.

SPACE RACE

Humans were only able to make that small step after several other space firsts happened. In 1957 the first artificial satellite, Sputnik 1, was launched into space by Russia. The United States launched several satellites of their own afterward. Both countries hoped to be the first to send a human into space.



President John F. Kennedy

It was not until 1961 that a person went to space: On April 12, Russia’s Yuri Gagarin became the first. Less than a month later the United States’ Alan Shepard became the first American in space. Following these milestones, President John F. Kennedy issued a challenge to the National Aeronautics and Space Administration (NASA) to put a human on the moon in 10 years or less.

NASA went to work. On July 16, 1969, the spacecraft Apollo 11 prepared to launch a crew of three astronauts into space ... and the history books.

MOON WALK

NASA officials selected Neil Armstrong, Buzz Aldrin, and Michael Collins as the astronauts who would make the historic trip from Earth on Apollo 11. Just four days after launching from Kennedy Space Center in Florida, the spacecraft neared the moon's surface.



Left to right: Astronauts Neil Armstrong, Michael Collins, and Buzz Aldrin

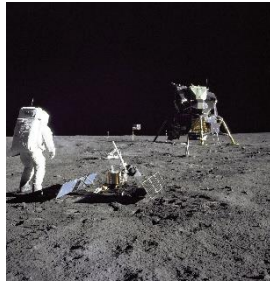
Before touching down, the three men split up. Collins boarded Apollo 11's command module, the *Columbia*, where he would remain in orbit around the moon. Armstrong and Aldrin boarded Apollo 11's lunar module, the *Eagle*, and began to descend to the moon's surface.

The *Eagle* made a risky landing in a shallow moon crater named the Sea of Tranquillity. (Most people watching the landing on TV did not know that the *Eagle* had only 20 seconds of landing fuel left at this point.) Armstrong and Aldrin looked out the windows of the module at the lifeless and barren lunar landscape. After six and a half hours pass, the pair inside the *Eagle* prepared to exit the module. As mission commander, Armstrong stepped out first ... and became the first person on the moon.



Astronaut Buzz Aldrin's footprint is visible in a shallow moon crater named the Sea of Tranquillity.

Twenty minutes later, Aldrin climbed down the ladder and joined his partner. After reading a plaque that said they “came in peace for all mankind,” the two planted the United States’ flag on the surface. President Richard Nixon called to congratulate the astronauts. Armstrong and Aldrin went back to work collecting samples of moon rocks and dust. After over two hours, the astronauts brought 47 pounds back onto the lunar module and prepared to re-join Collins. It was time to go home.



Astronaut Buzz Aldrin studies the moon's soil; on the far right is Apollo 11's lunar module, the Eagle.

DOWN TO EARTH



A view of Earth appears as astronauts Neil Armstrong and Buzz Aldrin prepare to exit their lunar module and become the first humans to walk on the moon.

The Apollo 11 crew returned to Earth on July 24, 1969. Over the next several years, 10 astronauts would follow in Armstrong and Aldrin's footsteps. The last mission to the moon was in 1972.

Though humans have not returned to the moon since, they have continued to explore space. They even built the International Space Station (ISS), a space research station, where they can conduct experiments and study space up close.

Space Travel

Replace one letter -
earth is one of these.



Replace one letter -
you eat off these

Add one letter -
somewhere to be



Remove one letter -
how fast you walk.



space



Replace one letter -
you fly in them



Add one letter to
make a plural



Replace one letter -
fancy trim for a dress.



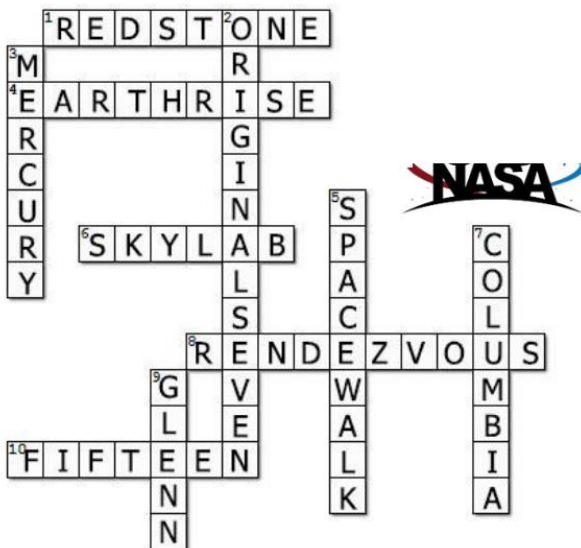


ANSWERS 1. National Aeronautics & Space Administration 2. Valentina Tereshkova 3. Alan Sheppard 4. Neil Armstrong 5. Alexei Leonov 6. A dog called Laika 7. Michael Collins 8. 2 hours and 30 minutes 9. "I see Earth! It's so beautiful!" 10. 1969 11. Michael Collins 12. Iron and rocks mainly 13. No side there is no such thing 14. Sea of Tranquillity 15. President John F. Kennedy 16. Columbia 17. It is the location of NASA spacecraft launches 18. To take pictures of planets stars and galaxies 19. President Clinton and his wife Hillary were present at the Kennedy Space Center in Florida, when astronaut John Glenn returned to space on STS-95 on Oct. 29 1998 20. 28 Flights

Space Word Search

Z N O O H U G A S U N D I A L V M B R L
 B U C D C B R I H W Z G B E R R A W A C
 X F K H E L E C T R O N R N M X C Z W G
 X O M F A A S M P M E T E O R N G U Z E
 P G H M T C P U T T Y P S U D A X H M J
 A E U B O K H Y O C N G A L A X Y J L R
 X W S V M H E B L O E A U M F O M O A L
 H T C W B O R B B M H C E I H E E T Y K
 M B R S D L E A X E D C C L F W T Y Q W
 A I F U F E D U I T T E L K B C E A T M
 X N V P I Z X R T W Q L I V I K O J H F
 S A S E W X G O J Y E E P W G N R A W L
 A R A R B B I R Q X Y R S A K A O N U C
 X Y S N X C C A P I W A E Y L K I L B U
 T T T O S A T E L L I T E K M P D J Z C
 A O E V Q L F I G J W I J I J P S R B K
 Q E R A A N D C O S M O L O G Y E E L K
 K R O U R V I Q W W Z N F S P U T N I K
 C J I A G R U N R P R F E X L T P X C V
 O X D M O R B I T C I M W H D A P H B K

Human Spaceflight



1. Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune Pluto. 2. Jupiter 3. Astronomy 4. Saturn and Uranus 5. Luna 6. By the colour of the star 7. Mars 8. The moon gets between the sun and the Earth 9. The USSR (Russia) 10. Sputnik I in 1957 11. It is the distance light can travel in a year 12. Hayley's comet comes every 75 years the next time will be July 2061 13. Yuri Gagarin 14. Venus 15. None 16. Space Shuttle Challenger 17. Neil Armstrong 18. The Milky Way 19. Mercury 20. American astronaut John Glenn 21. A shooting star.

Space Travel Word Ladder



ANSWERS

- planet
- planes
- plates
- places
- place
- lace
- pace
- space

