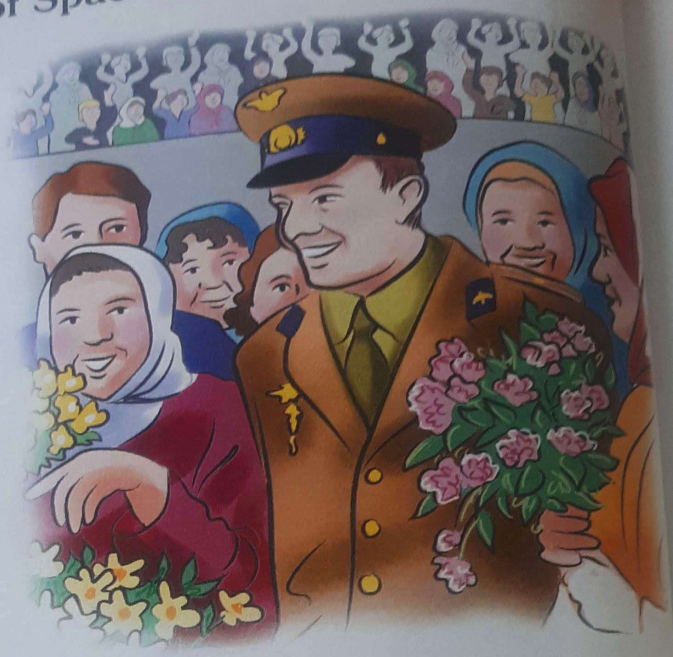
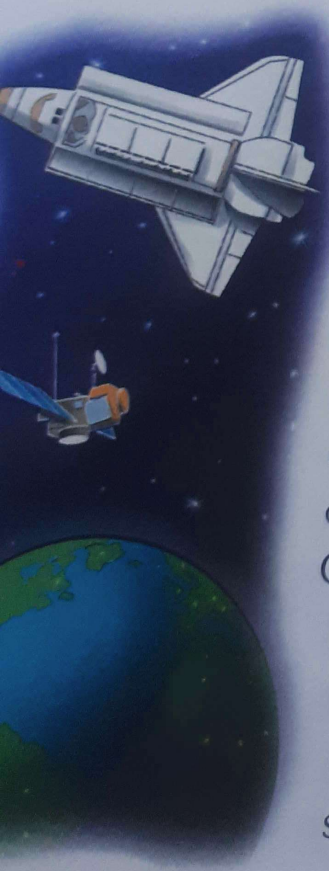
* The Conquest of Space *



In November 1957, a dog named Laika became the first animal in space. It was another four years on the 12 April 1961, that Flight Major Yuri Gagarin became the first person in space. He orbited the Earth in his spacecraft, Vostok I, at a height of 300 kilometres, for an hour and forty-eight minutes. Gagarin became a legend overnight.

In fact the quest to conquer space had started as far back as 1949, when the Russians and Americans earnestly began to grapple with the problems involved. The obstacles they faced were daunting. It was simply not possible to use aircraft or balloons to venture into space. These relied on air to support them and space was a vacuum, without air. Also, in order to escape from the massive downward pull of the earth due to gravity, it was obvious that what was needed was a totally new vehicle of great power and speed.

To overcome these problems, scientists turned to a thousand year old Chinese invention, the rocket. Rockets work in much the same way as an ordinary balloon. When the air in the rocket is allowed to rush out, it shoots forward. Rockets must burn fuel extremely quickly, so that enough hot gases can be released to shoot the rocket forward into the atmosphere.

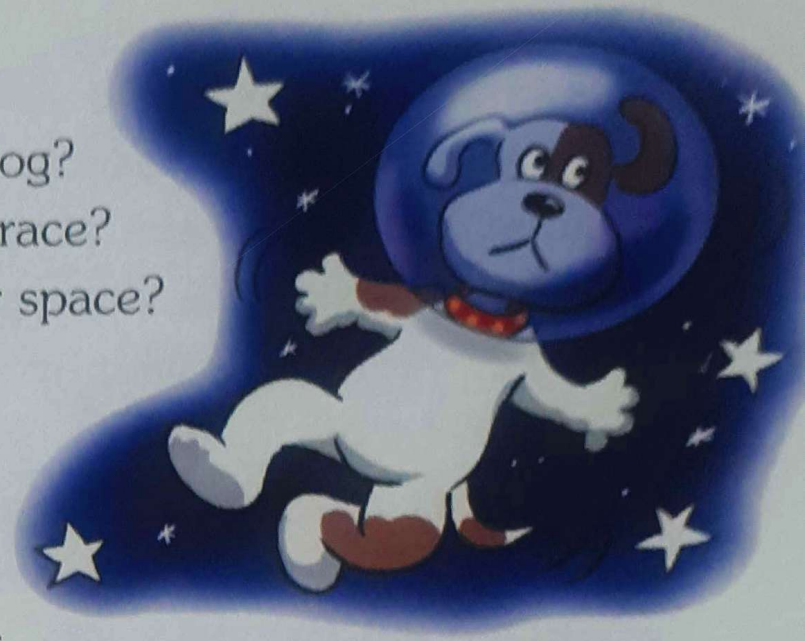


Unless a rocket can reach a speed greater than 29,000 kilometres per hour within minutes of lift-off, it will not escape from the Earth's pull. This speed is called the Earth's escape velocity. Once escape from the Earth has been achieved, only very small rocket-power is needed to orbit in space.

It takes a spacecraft such as the space shuttle only 90 minutes to orbit Earth. During this time the astronauts will spend 45 minutes in bright daylight on one side of the Earth and 45 minutes in darkness on the other. In the darkness the astronauts can clearly see the lights of the Earth's cities shining below. People used to believe that the Great Wall of China was the only object made by people that could be seen from space. In fact astronauts in shuttles have seen motorways, airports and dams. Occasionally astronauts can see the glint of sunshine off an aeroplane in flight or even a passing satellite.

A **Answer these questions.**

1. Who was Yuri Gagarin?
2. What was the name of his spacecraft?
3. What distinction in space history is owed to a dog?
4. What two countries were involved in the space race?
5. Why is it so difficult to go from Earth into outer space?
6. Explain how a rocket works.
7. In what country was the rocket invented?
8. What does the term "escape velocity" mean?
9. How long does it take to orbit Earth?
10. Write the names of the ~~nine~~ eight planets in our solar system and the names of any constellations of stars you know.



B **Use your dictionary to look up the highlighted words in the story.**

C **Summarise the story in your own words. Use about 10 sentences.**

There or their.

1. There means **in that place**. Example: The men went **there**.
2. There is used with the verb **to be**. Example: **There** is a book on the table.
3. Their means **belonging to them** and is always followed by a noun. Example: I lost **their** books.