

**Key Vocabulary**

<b>explore</b>	To travel through an unfamiliar area in order to learn about it.
<b>contribution</b>	The part played by a person or thing in bringing about a result or helping something to advance.
<b>astronaut</b>	A person who is trained to travel in a spacecraft.
<b>orbit</b>	The curved path of a celestial object or spacecraft round a star, planet, or moon.
<b>Soviet Union</b>	A powerful group of countries including Russia, Belarus, Ukraine, Georgia, and 11 others that existed in Europe and Asia from 1922 to 1991.
<b>colonising</b>	Send settlers to a place and establish control over it.
<b>trajectory</b>	The path followed by an object moving under the action of given forces.

**Powerful knowledge**

- On 12th April 1961, Russian Cosmonaut Yuri Gagarin became the first man in space. Gagarin's spacecraft, Vostok 1, completed one orbit of the earth, and landed about two hours after launch. Valentina Vladimirovna Tereshkova was the first woman ever to fly in space. She is known for being the first and youngest woman in space, having flown a solo mission on the Vostok 6 on 16 June 1963. Neil Armstrong was the first person to set foot on the moon in 1969. Mae Jemison was the first African-American woman to become an astronaut. She was part of the crew of the space shuttle Endeavour which orbited the Earth in 1992.
- The Space Race was a competition of space exploration between the Soviet Union (now Russia) and the United States, which lasted from 1955 to 1969. The Space Race began after the Soviet launch of Sputnik 1 on 4 October 1957. The Space Race became an important part of the rivalry between the United States and the Soviet Union during the Cold War. Space technology became an extra important area in this rivalry, because of possible military uses.
- The International Space Station is a large spacecraft that orbits Earth. It is a home where astronauts live and also a science lab. Many countries worked together to build it and use it. NASA uses the station to learn about living and working in space. In the year 2000 the crew of Expedition 1 Baikonur Cosmodrome, Sergei Krikalev and Bill Shepard, inhabited the ISS for the first time. Not only was Expedition 1 breaking new ground by allowing astronauts to live in space; it also marked a new peaceful, global cooperation between Russia and USA. The ISS became a place where people could collaborate on projects that would benefit the whole human race and work towards the common goal of colonising other planets.

**Learning Journey**

- To draw comparisons between various space explorers through history.
- To investigate the Space Race.
- To discover the importance of the International Space Station.
- To recognise Katherine Johnson's contributions to space exploration.
- To create a biography for Katherine Johnson (writing).

**Katherine Johnson**

- In 1937, Katherine gained a degree in mathematics and French. In 1953, she started working with Dorothy Vaughan at the West Area Computing Unit at NACA.
- NACA researched and developed flying and would eventually become NASA (National Aeronautics and Space Administration). The people working in Katherine's section were known as 'computers' because of their rapid ability to do complex calculations. The section Katherine worked in was segregated, only Black people worked there.
- NACA became NASA in 1958 and the offices stopped being segregated. When this happened, Katherine became a member of the Space Task Group. This meant that she was a part of the team who worked out the trajectory Apollo 11 needed to reach the moon.
- In 2016, NASA named a research facility after Katherine and her amazing work.



Katherine Johnson

