

Knowledge

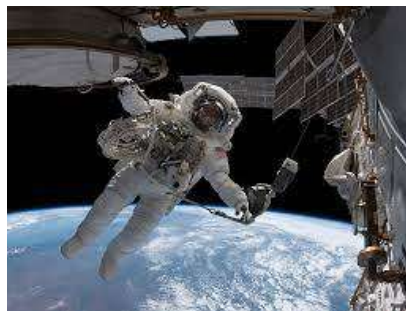
Space Explorers!

Key Vocabulary

Timeline of the Apollo 11 mission to the moon	16 July 1969 – 24 July 1969
Three astronauts that flew in Apollo 11.	Neil Armstrong , Buzz Aldrin, Michael Collins
Similarities and differences between space explorers	Valentina Tereshkova, Helen Sharman and Neil Armstrong, Yuri Gagarin, Mae Jamieson, Katherine Johnson.
Eight planets and their order in distance from the sun	Mercury, Venus, Earth , Mars, Jupiter, Saturn, Uranus, Neptune
Sun	A star made of gas; frozen balls of ice; rocks
Space Race – (Chronological framework)	Soviet Union launched first satellite, Sputnik. Americans respond with a rocket
Materials of rockets, lunar rover and spacesuits	Frame made from very strong but lightweight materials - titanium or aluminium



What is the future of space exploration?



Astronaut	<i>A person who is trained to travel in a spacecraft</i>
Rocket	<i>An object designed to travel through space or to launch a spacecraft</i>
Lunar Rover	<i>A vehicle designed for use by astronauts on the moon's surface (used on the last three missions of the Apollo project).</i>
Capsule	<i>A small spacecraft or the part of a larger one that contains the instruments or crew</i>
Satellite	<i>An artificial body placed in orbit round the earth or another planet in order to collect information or for communication</i>
Gravity	<i>The force that attracts a body towards the centre of the earth, or towards any other physical body having mass</i>
Oxygen	<i>The life-supporting component of the air</i>
Moon	<i>The natural satellite of the earth, visible by reflected light from the sun.</i>
Earth	<i>The planet on which we live; the world.</i>
NASA	<i>National Aeronautics and Space Administration, the federal agency that is responsible for aerospace research, aeronautics, and the civilian space program.</i>
Asteroid	<i>A small rocky body orbiting the sun. Large numbers of these, ranging enormously in size, are found between the orbits of Mars and Jupiter</i>
Comet	<i>An object made from ice and dust and, when near the sun, a 'tail' of gas and dust particles pointing away from the sun</i>
ESA	<i>European Space Agency – the agency responsible for space exploration in Europe.</i>
ISS	<i>International Space Station is a space station that keeps moving in low earth orbit. It is habitable and the largest artificial satellite that can be seen with the naked eye from Earth.</i>



Science Knowledge

- Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.
- Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.



Art and DT



Design, Make, and Evaluate a moon buggy:
Design - Acting in a creative imaginative way to have an overall outcome.

Construct - the action of building something, typically a large structure.

Build a structure (moon buggy) explaining how it can be made stronger, stiffer and more stable. Use mechanisms [for example, levers wheels and axles], in their product.

Materials will be chosen for specific purpose.