

Stargazers Spring 1

Key Questions:

What is the name of the planet we live on? What are the planets in our solar system?
How has our understanding of space changed through time?
What makes Earth the only habitable planet by humans?
How does gravity affect us?

History: Role of the UK in the international space race.

Key Questions:

Which event marked the beginning of the British race to space?
What is a Space Station?
What do we know about British space technology?
How did Helen Sharman change the race to space for people in Britain?
How is Helen Sharman a courageous advocate?
Is Tim Peake a courageous advocate? Why do you think that?
How has the British Space agency developed across time?

Key Facts:

1946 – War time rockets built by Germany were capable of blasting into space. Ralph Smith from the British Interplanetary Society proposed adapting the V-2 to carry humans into space, but the government rejected his plans due to limited post-war funds.
1955- USSR built and deployed their satellite Sputnik – Britain had the only telescope in the world strong enough to track it.
1960 – British rockets – Blue Streak and Black Knight were created – capable of carrying people into space.
1962 – First British satellite into space.
1971 – First British Satellite into orbit.
1975 – European Space Agency created with England as a leading country.
1985 – Britain gets a National Space Centre.
1985 – Britain leads a mission to Halley's comet.
1990 – Britain established as world leader in Satellites.
1991 – Helen Sharman is the first Briton in space
1997 – British technology explores Saturn's moons.
2003 – Beagle 2 (Mars space probe) was launched.
2005 – British company pioneers global satellite navigation
2009 – Tim Peake – First British ESA astronaut
2010 – British Space Agency opens.

Computing:

- To know how and why spreadsheets are used
- To input data correctly to a spreadsheet
- To use technical language such as cells, columns, rows, formulae and data
- To use formulae to calculate
- To process data given and create appropriate graphs and charts
- To analyse and present findings to an audience.



Music:

Can you name the instruments within 'The Planets Suite'?
What effect is the composer creating with the varying instruments?
How has the composer linked the music to myths and legends?

Key Questions:

Can you name the different instruments in an orchestra?
When playing the guitar how can we lengthen/shorten the sound?
How do you combine notes on a tuned instrument with chords?
Which note is 2 beats? A half beat? 4 beats?



Art:

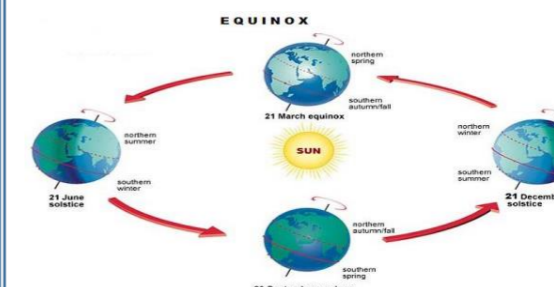
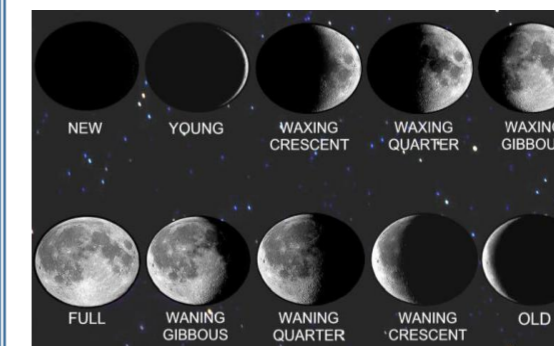
Work with our Resident Artist

Key Facts:

Safe ways to manipulate, cut and strengthen wire to create sculpture.
Use of tools including pliers and wire cutters to cut, shape and join wire.
Use of charcoal and differing grades of pencil to create different effects including silhouette.
How art is used to influence, celebrate and commemorate.

PSHE:

- Know options for further study after secondary school including apprenticeships, college and university.
- To know the range of career options available to them and different routes to employment.
- To know how to break down targets into manageable steps.
- Challenge stereotypes and know the impact the Equality Act 2010 has on employment.



Science

Key Questions

Where in the Solar system is the Earth?
How are seasons created?
Is gravity the same on all planets?
What are the effects of solar rays?
How do the planets move in relation to the sun?
Is there more sun at the Equator?
What is a star?

Key Facts

Name the planets in our solar system and their relative sizes.
Describe the movement of the Earth and other planets relative to the sun in the solar system
Describe the movement of the moon relative to the Earth
Know that the sun, Earth and moon are approximately spherical bodies
Explain day and night and the apparent movement of the sun

Key Vocabulary

Asteroid – A small rocky body orbiting the sun
Axis – An imaginary line about which a body rotates
Celestial – Positioned in or relating to the sky, or outer space as observed in the astronomy
Day – A twenty-four hour period, from one midnight to the next, corresponding to a rotation of the earth on its axis
Dwarf planet – A celestial body resembling a small planet but lacking certain technical criteria to be classed as a planet e.g. Pluto
Geocentric – Where people believed the earth was at the centre of the solar system
Heliocentric – Representing the sun as the centre of the solar system, the modern view of the solar system
Moon – A natural satellite of any planet
Night – The period from sunset to sunrise in each twenty-four hours
Orbit – The regularly repeated oval course of a celestial object around a star or planet
Planet – A celestial body moving in orbit round a star
Rotation – The action of rotating about an axis or centre
Solar system – The collection of eight planets and their moons in orbit round the sun
Star – A fixed luminous point in the night sky which is a large, remote body like the sun
Sun – The star round which planets orbit