









What lies beyond our world?

Powerful knowledge		Vocabulary	
		Tier 2	Tier 3
	<p>The Earth orbits the sun- 1 year = 365.25 days As it does so, it spins on its axis- 1 day = 24 hours The Earth has a natural tilt so the north and south hemispheres tilt either towards or away from the sun giving us seasons. The Moon orbits Earth every 28 days.</p>		
	<p>The Tropic of Cancer and the Tropic of Capricorn are the lines of latitude furthest from the equator where the sun will appear directly overhead in the middle of summer.</p>		
	<p>The phase of the moon is how much of the moon appears to us on Earth depending on how much of the Sun's light reaches it.</p>	<p>Spin Phase</p>	<p>Orbit Axis Solar system Hemisphere Heliocentric Geocentric Celestial body</p>
	<p>Solar System- the collection of eight planets and their moons in orbit round the sun, together with smaller bodies in the form of asteroids, meteoroids, and comets. Mercury, Venus, Earth, Mars, asteroid belt, Jupiter, Saturn, Uranus, Neptune</p>		



How has the moon landing shaped our world?

Powerful knowledge			Vocabulary	
			Tier 2	Tier 3
 <p>Russia and the USA were rivals. To prove their power and superiority, they were determined to be the first to go to space and the first to put people on the Moon. https://www.youtube.com/watch?v=xvaEvCNZymo</p>			<p>Legacy</p> <p>Rival / rivalry</p> <p>Superiority</p>	<p>Global superpower</p>
First satellite	First human in space	First human on the moon		
Sputnik 1 	Yuri Gagarin 	Neil Armstrong 		
	<p>On May 25, 1961, President John F. Kennedy announced the dramatic and ambitious goal of sending an American safely to the Moon before the end of the decade.</p>			
	<p>20th July 1969- Neil Armstrong and Edwin 'Buzz' Aldrin became the first people to walk on the Moon. 'That's one small step for man, one giant leap for mankind.'</p>			
Technology	Unity	The Environment		
<p>The Apollo programme accelerated technological developments (e.g. computers and batteries)</p>	<p>Humans put aside differences to share in the moment. The image of Earth rising about the Moon's horizon as a small, fragile planet alone in space inspired a generation of unity.</p>	<p>Seeing the planet in images from space kick-started the movement to look after the planet's environment. People truly realised it's the only planet we've got.</p>		



What forces are at play in our solar system?

Powerful knowledge		Vocabulary	
		Tier 2	Tier 3
	<p>For every force there is an equal, opposite force. Forces come in pairs. Any two objects have a gravitational pull between them. The greater the object's mass, the greater the force.</p>	Spin	
	<p>Earth's gravity comes from all its mass. All its mass makes a combined gravitational pull on all the mass in your body. That's what gives you weight. If you were on a planet with less mass than Earth, you would weigh less than you do here.</p> <p>Mass = stays the same (KG) Weight = effect of gravity on mass. Changes. (N)</p>		
	<p>Gravitational pull keeps moons and planets in orbit. Without it, they would continue moving in a straight line.</p>		
	<p>The gravitational pull of the Moon and the Sun makes the water in the oceans bulge, causing a continuous change between high and low tide. While both the Moon and the Sun influence the ocean tides, the Moon plays the biggest role. Because the Moon is so much closer to our planet than the Sun, the tidal effect of the Moon on Earth is more than twice as strong as that of the Sun</p>		



What does space sound like?

Powerful knowledge			Vocabulary	
			Tier 2	Tier 3
	<p>Sound vibrations travel in waves. Sound waves move vibrating objects and these objects vibrate other surrounding objects carrying the sound along.</p>		<p>Accompaniment</p>	<p>Sound waves Particles Vacuum Composer Pitch Tempo Beat</p>
	<p>Sound can move through the air, water, or solids, as long as there are particles to bounce off. Space is a vacuum, so space is silent.</p>			
	<p>Gustav Holst was a British composer best known for his orchestral suite <i>The Planets</i> (1914-1916). <i>The Planets</i> orchestral suite from 1918 describes seven planets in music but looks at their moods or characters rather than their scientific properties. Each one has a subtitle that further explains the character of the music.</p>			
<p>Mars, the Bringer of War</p>	<p>Venus, the Bringer of Peace</p>	<p>Mercury, the Winged Messenger</p>		
<p>5 beats in a bar with 3 epic climaxes. This piece greatly inspired the original music for <i>Star Wars</i> by John Williams.</p>	<p>Serene and beautiful with many orchestral solos and gentle accompaniment.</p>	<p>The quickest and shortest in the suite. High-pitched harp, flute and glockenspiel hop, skip and jump through the piece.</p>		