

# Space

Opportunities for Breadth and Challenge: Looking at space exploration.

Links to Sequencing for Learning:

This unit links to previous work on SPACE done in KS2 (order of planets)

This unit prepares pupils for work in Y9 and triple science

Section	What we are learning (key knowledge)	Key words	Assessment
1&2	The Night Sky <ul style="list-style-type: none"> <li>○ describe the objects that you can see in the night sky</li> <li>○ describe the structure of the Universe</li> </ul>	Satellites, Orbit, Moon, Comet, Meteors, Stars, Galaxy, Milky way, Universe	Prior knowledge
3	The Solar System <ul style="list-style-type: none"> <li>○ name the objects in the Solar System</li> <li>○ describe some similarities and differences between the planets of the Solar System</li> </ul>	Terrestrial planets, Gravity, Planets	Retrieval Qs of keywords MUM- Poster of the Solar System
4	The Earth <ul style="list-style-type: none"> <li>○ explain the motion of the Sun, stars, and Moon across the sky</li> <li>○ explain why seasonal changes happen</li> </ul>	Day, Night, Year, Seasons. Constellations	
5	The Moon <ul style="list-style-type: none"> <li>○ describe the phases of the moon</li> <li>○ explain why you see phases of the moon</li> <li>○ explain why eclipses happen</li> </ul>	Umbra. Eclipse, Solar Eclipse	
7	Revision		Class assessment sheet
8	End of Unit Test		EUT
9	Test Feedback		Test feedback sheet

# Electricity

Opportunities for Breadth and Challenge: Completing electronic circuit for simple operations, eg flashing lights. Producing an electromagnetic motor			
Links to Sequencing for Learning: This unit links to previous work on basic circuit from KS2 This unit prepares pupils for work in Y10 Electricity and Circuits This unit links to previous work on basic magnetism from KS2 This unit prepares pupils for work in Y11 Magnetism and the motor effect.			
Section	What we are learning (key knowledge)	Key words	Assessment
1	Circuits <ul style="list-style-type: none"> <li>describe what is meant by current</li> <li>describe how to measure current</li> </ul>	Current, switch, ammeter, amps	Prior knowledge
2	Series and Parallel Circuits <ul style="list-style-type: none"> <li>describe the difference between series and parallel circuits</li> <li>describe how current and potential difference vary in series and parallel circuits</li> </ul>	Series, parallel	Retrieval Qs of keywords MUM- Series and Parallel Circuits
3	Potential difference <ul style="list-style-type: none"> <li>describe what is meant by potential difference</li> <li>describe how to measure potential difference</li> <li>describe what is meant by the rating of a battery or bulb</li> </ul>	Potential difference, voltmeter, volts, rating	
4	Resistance <ul style="list-style-type: none"> <li>describe what is meant by resistance</li> <li>calculate the resistance of a component and of a circuit</li> <li>describe the difference between conductors and insulators in terms of resistance</li> </ul>	Resistance, ohms, conductors, insulators	
5	Static Electricity <ul style="list-style-type: none"> <li>explain how objects can become charged</li> <li>describe how charged objects interact</li> <li>describe what is meant by an electric field</li> </ul>	Electric charge, positive, negative, attract, repel, atoms, protons, electrons, neutrons, neutral, current, lightning, electric field	
6	Magnets and magnetic materials <ul style="list-style-type: none"> <li>describe how magnets interact</li> <li>describe how to represent magnetic fields</li> <li>describe the Earth's magnetic field</li> </ul>	Magnetic field, north pole, south pole,	Prior knowledge
7	Magnetic fields	magnetic field lines	

	<ul style="list-style-type: none"> <li>describe how to represent magnetic fields</li> <li>describe the Earth's magnetic field</li> </ul>		
8	<p>Electromagnets</p> <ul style="list-style-type: none"> <li>describe how to make an electromagnet</li> <li>describe how to change the strength of an electromagnet</li> </ul>	Electromagnet, core, magnetise	<p>Retrieval Qs of keywords</p> <p>MUM- Magnets and magnetic materials</p>
9	<p>Using electromagnets</p> <ul style="list-style-type: none"> <li>describe some uses of electromagnets</li> <li>describe how a simple motor works</li> </ul>	Relay, motor	
	Revision		Class assessment sheet
7	End of Unit Test		EUT
8	Test Feedback		Test feedback sheet

# Pressure and Motion

Opportunities for Breadth and Challenge: Using a Eureka Can to find the density of a non-uniform shape object.			
Links to Sequencing for Learning: This unit links to previous work on basic pressure from KS2 This unit prepares pupils for work in Y11 particle model			
Section	What we are learning (key knowledge)	Key words	Assessment
1	Pressure in gases <ul style="list-style-type: none"> <li>describe the factors that effect gas pressure</li> <li>describe how atmospheric pressure changes with height.</li> </ul>	Gas pressure, compressed, atmospheric pressure, density	Prior knowledge
2	Pressure in liquids <ul style="list-style-type: none"> <li>describe how liquid pressure changes with depth</li> <li>explain why some things float and some things sink</li> </ul>	Liquid pressure, incompressible	Retrieval Qs of keywords MUM – Pressure in Liquids investigation
3	Pressure in solids <ul style="list-style-type: none"> <li>calculate pressure</li> <li>apply ideas of pressure to different situations</li> </ul>	Pressure, Newton per metre squared	
4	Turning forces <ul style="list-style-type: none"> <li>describe what is meant by a moment</li> <li>calculate the moment of a force</li> </ul>	Pivot, moment, newton metres, law of moments, centre of gravity, centre of mass	
	Revision		Class assessment sheet
7	End of Unit Test		EUT
8	Test Feedback		Test feedback sheet