

Year Group: 5  
Term: Spring 22



## Essential Question

Are your dreams out of this world?

## Final Outcome

To enter the STEM competition: LOGO LIFT OFF. Design a logo which showcases the role of small satellites in measuring climate change to go on rockets launched from the UK spaceports in 2022.

## Driving Text

Survival in Space – David Long  
Hidden Figures – Margot Lee Shetterly

## Mini Outcomes

Mini Outcome 1: Research the dreams of an aspiring astronaut.

Mini Outcome 2: Research career opportunities in the space industry.

Mini Outcome 3: Navigate the NASA website to research life in space.

## Experts, Trips, Experiences & Making Community Links

Steam school experts (video links on website)  
Mission to Mars: <https://portal.system.steam-school.com/missions/6>  
Jon Chase (Science Rap Communicator):  
<https://portal.system.steam-school.com/missions/6/broadcasts/39>  
Dr. Jackie Bell (Aspiring astronaut): <https://portal.system.steam-school.com/missions/6/broadcasts/42>  
David Weigel (Planetarium director): <https://portal.system.steam-school.com/missions/6/broadcasts/43>

Planetarium World Museum

## Key Vocabulary

Solar system  
Sun  
Star  
Moon  
Planet  
Mercury, Venus, Mars, Jupiter, Saturn, Uranus, Neptune, Pluto  
Earth  
Sphere  
Spherical bodies  
Satellite  
Orbit  
Rotate  
Axis  
Geocentric model  
Heliocentric model  
Astronomer  
Gravity  
Gravitational force  
Day  
Night  
Light  
Shadow

## Technology

Steam school  
Seesaw  
VR headsets – space theme

## Immersive Environment

Overall theme of Earth and Space will be reflected across both classrooms with stars, moon, sun and the planets incorporated.

- Earth and Space (researching each planet and its properties) Have each planet picture displayed and information on each

## Outcomes for this Term/National Curriculum Links and Coverage

<b>Maths</b>	<b>REAL Project</b>		<b>RE &amp; Other Subjects</b> <i>(taught discretely)</i>
	<b>English</b>	<b>Foundation Subjects</b>	
<p>Recap Multiply 2-digits by 1-digit Recap Multiply 3-digits by 1-digit Multiply 4-digits by 1-digit Multiply 2-digits (area model) - first part of worksheet Multiply 2-digits (area model) - second part of worksheet Multiply 2-digits by 2-digits Multiply 3-digits by 2-digits</p> <p>New content Multiply 4-digits by 2-digits (basic practice)</p> <p>Multiply 4-digits by 2-digits</p> <p>Recap Divide 2-digits by 1-digit (1)</p> <p>Recap Divide 2-digits by 1-digit (2)</p> <p>Recap Divide 3-digits by 1-digit</p> <p>Divide 4-digits by 1-digit</p> <p>Divide with remainders <b>Recap</b> What is a fraction?</p> <p><b>Recap</b> Equivalent fractions</p> <p>Equivalent fractions</p> <p><b>Recap</b> Fractions greater than 1</p> <p>Improper fractions to mixed numbers</p> <p>Mixed numbers to improper fractions</p> <p>Number sequences</p> <p>Compare and order fractions less than 1 (first part of worksheet)</p> <p>Compare and order fractions less than 1 (second part of worksheet)</p> <p>Compare and order fractions greater than 1 (first part of worksheet)</p> <p>Compare and order fractions greater than 1 (second part of worksheet)</p>	<p><u>Writing</u> Following critique and multiple drafting process throughout the following genres:</p> <ul style="list-style-type: none"> <li>• Virtual Postcard</li> <li>• Leaflet explanation text/fact file</li> <li>• Narrative</li> <li>• Poetry</li> <li>• Biography</li> </ul> <p><u>Grammar &amp; Punctuation</u> Taught through writing workshops – reference to Y5 expectations checklist</p> <p><u>Spelling</u></p> <ol style="list-style-type: none"> <li>7. Spelling Rules: Words ending in ‘-ant.’ ‘-ant’ Is used if there is an ‘a’ or ‘ay’ sound in the right place.</li> <li>8. Spelling Rules: Words ending in ‘-ance.’ ‘-ance’ Is used if there is an ‘a’ or ‘ay’ sound in the right place.</li> <li>9. Spelling Rules: Use –ent and -ence after soft c (/s/ sound), soft g (/j/ sound) and qu. There many exceptions to this rule.</li> <li>10. Spelling Rules: Words ending in ‘-able’ and ‘-ible.’ ‘-able’ is used where there is a related word ending ‘-ation.’</li> <li>11. Spelling Rules: Words ending in ‘-ably’ and ‘-ibly.’ The ‘-able’ ending is usually but not always used if a complete root word can be heard before it. ‘y’ endings comply with previously learned rules and is replaced with ‘i’ as in rely &gt; reliably</li> <li>12. Challenge Words</li> </ol> <ul style="list-style-type: none"> <li>• List 13 – Spelling Rules: Words ending in ‘-able.’ If this is being added to a root word ending in –ce or –ge then the e after the c or g is kept other wise they would be said with their hard sounds as in cap and gap.</li> <li>• List 14 – Spelling Rules: Adverbs of time (temporal adverbs) these are words to develop chronology in writing.</li> <li>• List 15 - Spelling Rules: Adding suffixes beginning with vowel letters to words ending in –fer. The r is doubled if the –fer is still stressed when the ending is added. If the –fer is not stressed then the r isn’t doubled.</li> </ul>	<p><u>Science</u> <b>Earth and Space</b></p> <ol style="list-style-type: none"> <li>1. Describe the Sun, Earth and Moon as approximately spherical bodies (K)</li> <li>2. Describe the movement of the Earth, and other planets, relative to the Sun in the solar system (K). Identifying scientific evidence that has been used to support or refute ideas or arguments. (WS)</li> <li>3. Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky. (K)</li> <li>4. Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky. (K) Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary (WS) Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs (WS) Using test results to make predictions to set up further comparative and fair tests (WS)</li> <li>5. Describe the movement of the Moon relative to the Earth (K)</li> <li>6. Describe the movement of the Earth, and other planets, relative to the Sun in the solar system (K) Identifying scientific evidence that has been used to support or refute ideas or arguments. (WS)</li> </ol> <p><b>Forces and Magnets</b></p> <ol style="list-style-type: none"> <li>1. Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.</li> <li>2. Identify the effects of air resistance, water resistance and friction, that act between moving surfaces</li> <li>3. Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</li> <li>4. Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</li> <li>5. Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</li> <li>6. Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</li> <li>7. Use test results to make predictions to set up further comparative and fair tests.</li> <li>8. Report, and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.</li> <li>9. Identify scientific evidence that has been used to support or refute ideas or arguments.</li> </ol>	<p><u>RE</u> <b>Theme – Local Church - Community</b> <b>Topic 4 – Mission (Plan a visit to church)</b> <a href="#">Continuing Jesus’ mission in diocese [ecumenism]</a></p> <ul style="list-style-type: none"> <li>• Christ inaugurates the proclamation of the Good News using Isaiah</li> <li>• The apostles share in Christ’ mission</li> <li>• The call of Levi</li> <li>• Priestly prayer for unity in John’s Gospel</li> <li>• The nature of a diocese</li> <li>• The bishop is the successor of the apostles and continues the mission of Christ</li> <li>• The meaning of ecumenism</li> </ul> <p><b>Theme - Eucharist - Relating</b> <b>Topic 5 – Memorial Sacrifice</b> <a href="#">The Eucharist the living memorial of Jesus’ sacrifice</a></p> <ul style="list-style-type: none"> <li>• Passover in Exodus</li> <li>• The institution of the Eucharist at the Last Supper</li> <li>• The Eucharist as a memorial sacrifice of Jesus</li> <li>• Transubstantiation through the power of the Holy Spirit, of bread and wine into the Body and Blood of Christ</li> <li>• The real presence of Christ in the Eucharist</li> <li>• Proclaiming the mystery of faith</li> <li>• Eucharistic Prayer II</li> </ul> <p><b>Theme – Lent/Easter - Giving</b> <b>Topic 6 – Sacrifice</b> <a href="#">Lent a time of aligning with the sacrifice already made by Jesus</a></p> <ul style="list-style-type: none"> <li>• Lent is a time for self sacrifice</li> <li>• Jesus’ temptation in the desert</li> <li>• Holy Week</li> <li>• The Stations of the Cross</li> <li>• The Sorrowful Mysteries of the Rosary</li> <li>• Gethsemane: the agony in the garden</li> <li>• Holy Thursday, the altar of Repose</li> <li>• Jesus’ suffering</li> <li>• The Crucifixion</li> <li>• Good Friday liturgy of the Passion of the Lord</li> <li>• The Resurrection</li> </ul>

<p>Add and subtract fractions</p> <p><b>Activity</b> Add fractions within 1</p> <p>Add fractions within 1</p> <p>Add 3 or more fractions</p> <p>Add fractions</p> <p><b>Activity</b> Add mixed numbers</p> <p>Add mixed numbers</p> <p>Subtract fractions</p> <p>Subtract mixed numbers</p> <p>Subtraction - breaking the whole</p> <p>Subtract 2 mixed numbers</p> <p>Multiply unit fractions by an integer</p> <p>Multiply non-unit fractions by an integer</p> <p>Multiply mixed numbers by integers</p> <p><b>Recap</b> Calculate fractions of a quantity</p> <p>Fraction of an amount</p> <p>Using fractions as operators</p> <p><b>New content</b> Fraction problem solving Decimals up to 2 d.p.</p> <p>Decimals as fractions (1)</p> <p>Decimals as fractions (2)</p> <p>Understand thousandths</p> <p>Thousandths as decimals</p> <p>Rounding decimals Order and compare decimals</p> <p>Understand percentages</p> <p>Percentages as fractions and decimals</p> <p>Equivalent F.D.P</p>	<ul style="list-style-type: none"> <li>List 16 – Words with ‘silent’ letters at the start.</li> <li>List 17 – Words with ‘silent’ letters (i.e. letters whose presence cannot be predicted from the pronunciation of the word)</li> <li>List 18 – Challenge Words</li> </ul> <p><b>Handwriting – Nelson handwriting scheme – Unit 15 - 25</b> Write legibly, fluently and with increasing speed by:</p> <ul style="list-style-type: none"> <li>Choosing which shape of a letter to use when given choices and deciding whether or not to join specific letters</li> <li>Choosing the writing implement that is best suited for a task</li> <li>I write legibly and fluently using cursive and I have progressed to using pen</li> </ul> <p><b>Guided Reading</b> <b>The Iron Man (From Autumn 2)</b></p> <p>The Tale of Two Cooking Pots Txt Talk Hi Max! Murder at the Manor Houdini does it again! Tommy’s Little Battle Part 1 Tommy’s Little Battle Part 2 Hail Caesar! <b>&amp; picture book study weeks</b></p>	<p><b>Geography</b></p> <p><b>Locational Knowledge</b> Human and physical characteristics Locate countries around the world including North America.</p> <p><b>Design &amp; Technology</b> Electrical systems with a motor and a switch (Design your own Mars Rover)</p> <p><b>Art</b> <b>Express yourself</b> DRAWING Observation Detail View Finder Blending Shading Cross-hatching Tonal contrast Mixed media Perspective Composition Scale Proportion</p> <p>PAINTING Atmosphere Light effects Primary Secondary Complimentary Contrasting colours Harmony</p> <p><b>Computing</b> <b>Purple mash - Unit 5.2 Online Safety</b> L1 – Responsibilities and support when online L2 – Protecting privacy L3 – Citing sources L4 – Reliability</p> <p><b>Purple mash - Unit 5.3 Spreadsheets</b> L1 – Conversion of measurements L2 – The count tool L3 – Formulae including the advanced mode L4 – Using text variables L5 – Event planning</p> <p><b>Music</b> ‘Make you feel my love’ (6 week block) ‘The Fresh Prince of Bel Air’ (6 week block)</p>	<p><b>PSHE (Jigsaw)</b> Spring 1 – ‘Dreams and goals’ Spring 2 - ‘Healthy Me’</p> <p><b>MFL - Spanish</b></p> <p><b>PE –</b> Dance Swimming</p>
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