The Learning Challenge

Curriculum

2024-2025

Year 5

Class: Fox

Spring Term Curriculum Map Year 5

	Spring Earth and Space	
English	• Reading and learning poems throughout term • Fantasy stories (space themed) • Explanations (How does the solar system affect time on Earth?)	• Diary entries • Travel writing
Maths WRM	• Multiplication and division • Fractions • Decimals and percentages *Ongoing fluency, reasoning and problem solving*	
Science	**Working scientifically** • planning different types of scientific enquires to answer questions including recognising and controlling variables where necessary • taking measurements, using a range of scientific equipment , with increasing accuracy and precision • recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar and line graphs • using test results to make predictions to set up further comparative and fair tests • reporting and presenting findings from enquires, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations	
	Earth and Space • describe the movement of the Earth, and other planets, relative to the Sun in the solar system • explain how seasons and the associated weather is created • describe the movement of the Moon relative to the Earth • describe the Sun, Earth and Moon as approximately spherical bodies • use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky **Forces** • explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object • identify the effects of air resistance, water resistance and friction, that act between moving surfaces • recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect	
History	<u>Significant event in history – Apollo 11 moon landing (linked to science)</u> 1 & 2. **To recognise the moon landings as a significant turning point in history.** Explaining the historical significance. Research Apollo 11 moon landing as a class, considering different primary and secondary sources. Plan and write a news report about the Apollo 11 mission. 3. **To understand how knowledge of the past is constructed from a range of sources.** Interpreting sources and evidence. Consider how we know about the past. Which of these sources do we use to understand Vikings? WW2? The first man on the moon? Which are more reliable sources? Is our knowledge of the distant past or near past more reliable? <u>Local history study (Marconi)</u>	

<table>
<tr><td></td><td colspan="2">1. To explore the life of Guglielmo Marconi. Explaining the historical significance
Use various sources to explore the life and achievements of Guglielmo Marconi. Children to write a factfile/biography about the life of Marconi, focusing on his work on the radio in Chelmsford.
2. To understand the significance of the history of radio, and how it has impacted our lives today. Explaining the historical significance.
Children sequence various inventions and consider how one invention impacted another. Explain how/why each invention is important. Do they think any inventions were more important than others? Look at Morse code, the radio (Marconi), phones, television, mobile phones, smart phones. Question whether we would have the phones we have today if Marconi hadn't invented the radio.
3. To compare present day Chelmsford to Chelmsford in the 1900s. Describing change and continuity
Using pictures and maps, children list differences in the human geography of Chelmsford between the two periods.</td></tr>
<tr><td>Geography</td><td colspan="2">1. To locate the Tropic of Cancer and the Tropic of Capricorn Locational Knowledge/map skills
Discuss the Equator, Tropic of Cancer and Tropic of Capricorn. Compare countries located close to Tropic of Cancer, Tropic of Capricorn and Equator (e.g. climate). Link to knowledge of space.
2. To identify latitude, longitude, equator and relate to understanding of time zones Locational Knowledge/map skills
Explore latitude and longitude, relating these to the tropics and Equator. Discuss different time zones across longitudes. Use 'clock' app to find current times and UTC+/- in different cities across the world.
3. To use sketch maps to build knowledge of my local area Map skills/field work
Explore example sketch maps, using keys to identify physical/human features of area. Create a sketch map and key to represent part of local area (using screenshot from GoogleMaps). Check all key features of sketch map included.
4. To use 4 figure grid references to locate features on a map Map skills/field work
Recap co-ordinates used in maths. Use 4 figure grid references to find locations on a map. Extend to use 6 figure grid references.
5. To use the 8 points of a compass Map skills/field work
Explore a map of the local area. Discuss 8 compass points and methods to remember order of these. Use 8 points of the compass to give directions from a chosen point on the map to a chosen destination.
6. To observe, measure and record physical features using a range of methods, e.g. measure rainfall, temperatures Field work
Discuss how we can describe climate (rainfall, temperature, etc). Explore how we measure these, considering graphs showing monthly tempteratures/rainfall. Take measurements using appropriate equipment. These may be set up and measured over subsequent weeks (e.g. rainfall).</td></tr>
<tr><td>Computing</td><td>Online Safety – Purple Mash unit 5.2
To gain a greater understanding of the impact that sharing digital content can have
To know how to maintain secure passwords
To understand the advantages, disadvantages, permissions, and purposes of altering an image digitally
To be aware of appropriate and inappropriate text, photographs and videos and the impact of sharing these
To learn about how to reference sources in my work and to search the Internet with a consideration of the reliability of the results of sources
To ensure reliability through using different methods of communication</td><td>Databases (Spreadsheets) – Purple Mash unit 5.3
To use formulae within a spreadsheet to convert measurements of length and distance
To use the count tool to answer hypotheses about common letters in use
To use a spreadsheet to model a real-life problem
To use formulae to calculate are and perimeter of shapes
To create formulae that use text variables
To use a spreadsheet to help plan a school cake sale</td></tr>
</table>

<table>
<tr><td>Design & Technology</td><td colspan="2">Science Topic: Forces Design and make a Space rover (moving vehicle)
Explore moving vehicles – know the components and how they work. Draw exploded diagram of model space rover/ vehicle. Test different components/ axles (fixed or free moving). Consider different ways to power the vehicle (pneumatics, kinetic energy, (stored), electricity).
Electrical and mechanical components:
incorporate different components such as pneumatics, hydraulics to create a product
refine their product after testing it
Link to Science: Forces
• identify the effects of air resistance, water resistance and friction that act between moving forces
• recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have greater effect
Stiff and flexible materials
• ensured that their product is strong and fit for purpose</td></tr>
<tr><td>Art</td><td colspan="2">Retro-futurism – painting and sketching
Knowledge
• independently improve their mastery of materials and techniques
• independently select and use relevant processes needed to create successful work
Sketchbooks
• use sketchbooks to collect and develop ideas
• use their sketch books to express feelings about a subject
Painting
• create a range of moods in paintings
• express emotions accurately through paintings and sketches</td></tr>
<tr><td>Music</td><td>Charanga scheme Make You Feel My Love (Pop Ballads)
Listening & Appraising
• To compare two songs in the same style, talking about what stands out musically in each of them, their similarities and differences
• Listen carefully and respectfully to other people's thoughts about the music
Dimensions of music
• Be able to create musical ideas for a group to copy or respond to
• Copy back rhythms based on the words of the main song, that include syncopation/off beat
Singing
• To choose a song and be able to talk about:
○ Its main features
○ Singing in unison, the solo, lead vocal, backing vocals or rapping
○ To know what the song is about and the meaning of the lyrics
Playing
• Select and learn an instrumental part that matches their musical challenge by ear or by using notation
Improvisation</td><td>Charanga scheme The Fresh Prince of Bel-Air (Old-School Hip-Hop)
Listening & Appraising
To choose two or three songs and be able to talk about:
○ Some of the style indicators of the songs
○ The lyrics: what the songs are about
○ Any musical dimensions featured in the songs and where they are used (texture, dynamics, tempo, rhythm and pitch)
○ Identify the main sections of the songs (intro, verse, chorus etc.)
○ Name some of the instruments they heard in the songs
○ The historical context of the songs. What else was going on at this time?
○ Compare and evaluate using musical vocabulary, which did they prefer and why?
○ The composers and share their preferences
Singing
• To experience rapping and solo singing
• To listen to each other and be aware of how you fit into the group

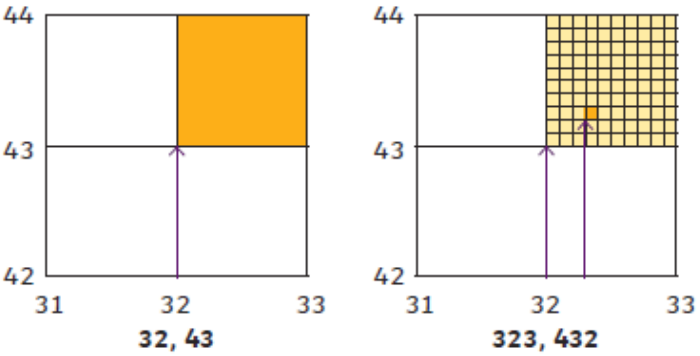
Improvisation
• Practise listening and copying back on an instrument using one, two or three notes</td></tr>
</table>

	• Practise listening and copying back on an instrument using one, two or three notes • Play Question and Answer games on an instrument using one, two or three notes **Composing** • Listen to and reflect upon their developing composition (and others') and make musical decisions about how the melody connects with the song, can they suggest improvements to their own and others' work? **Performing** • To understand the need to play clear notes rhythmically and with confidence when performing	• Play Question and Answer games on an instrument using one, two or three notes **Composing** • Listen to and reflect upon their developing composition (and others') and make musical decisions about how the melody connects with the song, can they suggest improvements to their own and others' work? **Performing** • Understand that a performance may involve communicating feelings, thoughts and ideas
PE	**Gymnastics skills** • work in a controlled way • follow a set of 'rules' to produce a sequence • work with a partner to create, repeat and improve a sequence with at least three phases • Develop the range of actions, body shapes and balances in a performance. • Perform skills and actions more accurately and consistently • Create gymnastic sequences that meet a theme or set of conditions. Use compositional devices when creating their sequences, such as changes in speed, level and direction NC Skills • Core skills (develop flexibility, strength, techniques, control, balance • Perform dances using a range of movements patterns **Football skills** • Develop a broader range of techniques and skills for attacking and defending • use a number of techniques to pass, dribble and shoot NC Skills • Master movements (running, jumping, throwing) • Play competitive games (modified where appropriate) apply basic principles suitable for attacking and defending. • Core skills (strength, control)	**OAA skills** • follow a map in an unknown location • use clues and compass directions to navigate a route • change their route if there is a problem • change their plan if they get new information NC Skills • Take part in outdoor and adventurous activity **Tennis skills** • use forehand and backhand with a racquet • Develop consistency in their skills • Develop a broader range of techniques NC Skills • Master movements (running, jumping, throwing and catching in isolation and combination) • Play competitive games (modified where appropriate) • Core skills (strength, control, balance)
R.E	Philosophy lens: Why should we be good? What do the great philosophers teach about the meaning of life? • Explore and interpret Plato's thought experiment 'The Allegory of the Cave'	Theology lens: What difference does the resurrection make to Christians? • Examine the purpose of religious and secular celebrations • Compare and contrast the Gospels of Christ's Resurrection • Explain the importance of a religious festival to Christians

	• Compare Karmic and Christian beliefs and how they affect moral behaviour • Examine Buddhist teachings on how to live a good life • Evaluate Kant's philosophical response to moral behaviour • Compose an argument which includes ideas from religious and philosophical concepts	• Debate the significance of the Easter Festival to Christian beliefs • Create an infographic poster explaining the relevance of the Resurrection
P.H.S.E Jigsaw scheme of work	**Dreams and Goals** • compare my hopes and dreams with those of young people from different cultures • reflect on the hopes and dreams of young people from another culture and explain how this makes me feel	**Healthy me/cooking linked to DT** • explain different roles that food and substances can play in people's lives. I can also explain how people can develop eating problems (disorders) relating to body image pressures and how smoking and alcohol misuse is unhealthy • summarise different ways that I respect and value my body

Apollo 11

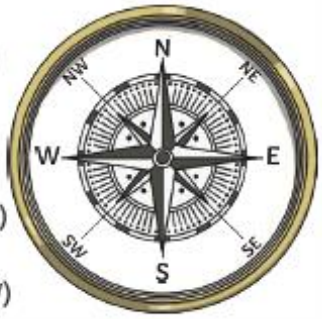
Neil Armstrong was launched into space on 16 July 1969.
The mission to space was called Apollo 11.
The Apollo 11 rocket was called Saturn V (Saturn 5).
Buzz Aldrin and Michael Collins were also part of the Apollo 11 mission.
Neil Armstrong was born on August 5, 1930 and died in 2012. He was 82.
The moon's surface is made up of dirt and rocks.
The moon has many craters which have been made by meteors.



Four-figure and six-figure grid references.

Eight-Point Compass

north (N)
north-east (NE)
east (E)
south-east (SE)
south (S)
south-west (SW)
west (W)
north-west (NW)



Marconi

One of those inventors was Guglielmo Marconi, an Italian who came to England in 1896. He was an enthusiastic 22 year old who brought with him his wireless **apparatus** and the ambition to create a communication system for the mariner (that's someone who works on a boat). Up until then, if you were out on the ocean you were very much on your own with no way of communicating with other ships or anyone on land. Pretty scary if anything went wrong!

Marconi chose Chelmsford, I mean who wouldn't! He needed electrical power and we were already way ahead thanks to the **pioneering** work of **Crompton and Christy.** In a fairly short amount of time Marconi had established a factory, carried out numerous experiments, obtained **patents**, made the first ever transatlantic wireless communication to Newfoundland in Canada (that's a long way!) and made the first wireless entertainment broadcast in the UK, which started off what we now know as radio.

astronaut
mission
space
wireless
radio

Apollo 11

transmission

NASA

aerials

broadcast

patents

pioneering

transatlantic

astronaut

An astronaut, or cosmonaut, is a person that travels into space.

radio

A piece of electronic equipment that can send and receive spoken messages

mission

An important job to be completed.

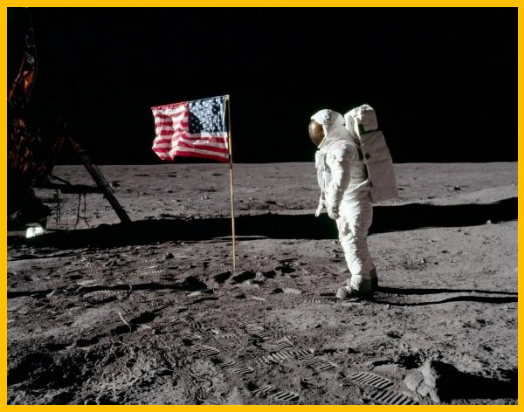
space

The area that contains everything outside of Earth.

wireless

Having no wires

Apollo 11



The spaceflight that first landed humans on the Moon.

NASA

The group of people in America in charge of flights to space.

transmission

The process of broadcasting or sending something by radio or television.

aerials

A structure by which signals are transmitted or received as part of a radio or television transmission.

broadcast

To transmit a programme or information by radio or television.

patent

The official legal right to make or sell an invention for a particular number of years.

pioneering

Using ideas and methods that have never been used before.

transatlantic

Concerning countries on both sides of the Atlantic.