

Hartford Manor Primary School

Key Stage 2 Long term plan

Year 5



This is a draft document – further detail will be added as the year progresses.

	Autumn term:	Spring term:	Summer term:
English	<p>Who's on the move? Narrative Stories - creating settings & hooking the reader Character profiles</p> <p>The Warrior Troll – Rachael Lindsay A Story like the Wind – Gill Lewis The Arrival – Shaun Tan</p> <p>Christmas Text – Coming Home – Michael Morpurgo Discussion text Arguments, Letters Chronological Recounts Non- Chronological report Diary entries Narrative outcome</p> <p>Spellings: Developing strategies for learning words from statutory and personal spelling lists, apostrophes, rare GPCs e.g. bruise, guarantee, -ably and ibly suffixes,</p>	<p>What goes up must come down Space poetry On a Beam of Light – Jennifer Berne The Lost Thing – Shaun Tan Explanation text. Science Fiction story – creating plots & paragraph types The Time & Space of Uncle Albert Diary of Tim Peake News report – ISS Explanation on the impact of space travel Range of non- fiction texts about space Write explanations, journalistic writing, diaries. The Sea of Tranquillity – Mark Haddon</p> <p>Spellings: Developing strategies for learning words from statutory and personal spelling lists, Ough, silent letters, -able and -ible suffixes, homophones, plurals, use of hyphen, proof reading, using a dictionary and building new words from known</p>	<p>Could I be a Superhero? Range of Greek myths and legends</p> <p>Superhero / Greek Hero stories – characterisation & dialogue, changing paragraphs</p> <p>Hero comparisons/ profiles – Traction Man – Mini Grey Comic strips / conventions</p> <p>The Man Who Walked Between the Twin Towers – Mordicai Gerstein Debates – arguments – discussion texts Recount / biography Play scripts</p> <p>Spellings: Developing strategies for learning words from statutory and personal spelling lists, using etymological/morphological strategies, proofreading, homophones, using spelling journals for etymology,</p>

	<p>homophones, building words from root words, ei and ie words.</p> <p>Grammar: Adverbial phrases Adverbials of time, place or number Adverbial phrases Relative pronouns and relative clauses Adverbials and modal verbs for possibility</p> <p>Reading Drawing inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence Predicting what might happen from details stated and implied Summarising the main ideas drawn from more than one paragraph, identifying key details that support the main ideas</p>	<p>morphemes..</p> <p>Reading Comprehension: To find information in a non-fiction text. Use Inference and deduction. look for meaning beyond the literal</p> <p>Grammar: To know conventions for writing dialogue. To punctuate direct speech Word classification – nouns, adjectives, determiners, articles, possessive determiners, possessive apostrophe</p> <p>Reading Recommend books that they have read to their peers, giving reasons for their choices making comparisons within and across books Learning a wider range of poetry by heart preparing poems and plays to read aloud and to perform, showing understanding through intonation, tone and volume so that the meaning is clear to an audience Discuss and evaluate how authors use language, including figurative language, considering the impact on the reader Distinguish between statements of fact and opinion Retrieve, record and present information from non-fiction</p>	<p>problem suffixes.</p> <p>Grammar: Degrees of possibility using adverbs or modal verbs Complex sentences</p> <p>Reading Explain and discuss their understanding of what they have read, including through formal presentations and debates, maintaining a focus on the topic and using notes where necessary Provide reasoned justifications for their views</p>
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<p>Maths</p>	<p>Number – Place Value</p> <ul style="list-style-type: none"> • Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit. • Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000. • Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers including through zero. • Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000. • Solve number problems and practical problems that involve all of the above. • Read Roman numerals to 1000 (M) and recognise years written in Roman numerals. <p>Number – addition and subtraction</p> <ul style="list-style-type: none"> • Add and subtract numbers mentally with increasingly large numbers. • Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • Use rounding to check answers to calculations and determine, in the context of a problem, levels of 	<p>Number: Fractions</p> <ul style="list-style-type: none"> • Compare and order fractions whose denominators are multiples of the same number. • Identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths. • Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number. • Add and subtract fractions with the same denominator and denominators that are multiples of the same number. • Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. • Read and write decimal numbers as fractions [for example $0.71 = \frac{71}{100}$] • Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. <p>Number: Decimals</p> <ul style="list-style-type: none"> • Read, write, order and compare numbers with up to three decimal places. • Recognise and use thousandths 	<p>Geometry- Angles</p> <ul style="list-style-type: none"> • Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. • Draw given angles, and measure them in degrees • Identify: angles at a point and one whole turn (total 360°), angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°) other multiples of 90° <p>Geometry- Shapes</p> <ul style="list-style-type: none"> • Identify 3D shapes, including cubes and other cuboids, from 2D representations. • Use the properties of rectangles to deduce related facts and find missing lengths and angles • Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. <p>Geometry- position and direction</p> <ul style="list-style-type: none"> • Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.
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accuracy.

- Solve addition and subtraction multi-step problems in contexts deciding which operations and methods to use and why.

Number – multiplication and division

- Multiply and divide numbers mentally drawing upon known facts.
- Multiply and divide whole numbers by 10, 100 and 1000.
- Multiply numbers up to 4 digits by a one or two digit number using a formal written method, including long multiplication for 2 digit numbers.
- Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context.
- Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.
- Recognise and use square numbers and cube numbers and the notation for squared (2) and cubed (3)
- Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and

and relate them to tenths, hundredths and decimal equivalents.

- Round decimals with two decimal places to the nearest whole number and to one decimal place.
- Solve problems involving number up to three decimal places.
- Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.
- Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.

Number: Percentages

- Recognise the percent symbol (%) and understand that percent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal.
- Solve problems, which require knowing percentage and decimal equivalents of common fractions and those fractions with a denominator of a multiple of 10 or 25.

Measurement- converting units

- Convert between different units of metric measure (for example, km and m; cm and m; cm and mm; g and kg; l and ml)
- Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.
- Solve problems involving converting between units of time.

Number- Prime Numbers

- Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.
- Establish whether a number up to 100 is prime and recall prime numbers up to 19

Perimeter and Area

- Measure and calculate the perimeter of composite rectilinear shapes in cm and m.
- Calculate and compare the area of rectangles (including squares), and including using standard units, cm^2, m^2 estimate the area of irregular

	<p>cubes.</p> <ul style="list-style-type: none"> Solve problems involving addition and subtraction, multiplication and division and a combination of these, including understanding the use of the equals sign. <p>Statistics</p> <ul style="list-style-type: none"> Solve comparison, sum and difference problems using information presented in a line graph. Complete, read and interpret information in tables including timetables. 	<ul style="list-style-type: none"> Time at the beginning or end of the term for consolidation, Gap filling, seasonal activities, assessments, etc. 	<p>Measures Volume</p> <ul style="list-style-type: none"> Estimate volume [for example using 1cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water] Use all four operations to solve problems involving measure <ul style="list-style-type: none"> Time at the beginning or end of the term for consolidation, gap filling, seasonal activities, assessments, etc.
Science	<p>Materials - changes</p> <p>Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets</p> <p>Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution</p> <p>Use knowledge of solids, liquids and gases to decide how mixtures might be</p>	<p>Space</p> <p>Describe the movement of the Earth, and other planets, relative to the Sun in the solar system</p> <p>Describe the movement of the Moon relative to the Earth</p> <p>Describe the Sun, Earth and Moon as approximately spherical bodies</p> <p>Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.</p>	<p>Animal / Human Life Cycles</p> <p>Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</p> <p>Describe the life process of reproduction in some plants and animals.</p> <p>Study and raise questions about their local environment throughout the year.</p> <p>Observe life-cycle changes in a variety of living things: plants in the vegetable garden or flower border, and animals in the local</p>

	<p>separated, including through filtering, sieving and evaporating</p> <p>Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic</p> <p>Demonstrate that dissolving, mixing and changes of state are reversible changes</p> <p>Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.</p> <p>Explore reversible changes, including, evaporating, filtering, sieving, melting and dissolving, recognising that melting and dissolving are different processes. Explore changes that are difficult to reverse, for example, burning, rusting and other reactions, for example, vinegar with bicarbonate of soda. Find out about how chemists create new materials, for example, Spencer Silver, who invented the glue for sticky notes or Ruth Benerito, who invented wrinkle-free cotton.</p> <p>Work scientifically by: carrying out tests to answer questions, for example, 'Which materials would be the most effective for making a warm jacket, for wrapping ice cream to stop it melting, or for making blackout curtains?'</p>	<p>Be introduced to a model of the Sun and Earth that enables them to explain day and night. Learn that the Sun is a star at the centre of our solar system and that it has eight planets: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. They should understand that a moon is a celestial body that orbits a planet.</p> <p>Find out about the way that ideas about the solar system have developed, understanding how the geocentric model of the solar system gave way to the heliocentric model by considering the work of scientists such as Ptolemy, Alhazen and Copernicus.</p> <p>Forces</p> <p>Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</p> <p>Identify the effects of air resistance, water resistance and friction, that act between moving surfaces</p> <p>Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</p> <p>Explore falling objects and raise questions about the effects of air resistance. They should explore the effects of air resistance by observing how different objects such as parachutes and sycamore seeds fall. They should experience forces that make things begin to move, get faster or slow down.</p> <p>Explore the effects of friction on movement and find out how it slows or</p>	<p>environment. Find out about the work of naturalists and animal behaviourists, for example, David Attenborough and Jane Goodall.</p> <p>Find out about different types of reproduction, including sexual and asexual reproduction in plants, and sexual reproduction in animals.</p> <p>Work scientifically by: observing and comparing the life cycles of plants and animals in their local environment with other plants and animals around the world (in the rainforest, in the oceans, in desert areas and in prehistoric times), asking pertinent questions and suggesting reasons for similarities and differences.</p> <p>Describe the changes as humans develop to old age.</p> <p>Draw a timeline to indicate stages in the growth and development of humans. Learn about the changes experienced in puberty.</p> <p>Work scientifically by researching the gestation periods of other animals and comparing them with humans; by finding out and recording the length and mass of a baby as it grows.</p>
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Computing	<p>Use the computer and spread sheets to create and alter graphs and charts.</p> <p>Use the computer to query and create own databases as appropriate, linking into work across the curriculum.</p> <p>If appropriate and cross curricular links present the opportunity, begin to explore spread sheets entering basic formulae.</p>	<p>Use an assisted programming software (Scratch) to plan, design and create basic software (for example a simple game), which interact with external controllers (e.g. keyboard and/or mouse). Using the software control the movement and responses of different elements on screen.</p>	<p>Continue to regularly use word processing and desktop publishing to present work, combining formatted text with other media and making choices about programs and features to use and justifying these choices to others.</p>
History	<p>The Viking and Anglo-Saxon struggle for the Kingdom of England to the time of Edward the Confessor</p>	<p>Famous people in the 1960'</p> <p>The Space race – Russia v America Research a famous person from the 1960's</p> <p>1960's Space technology Moon landing</p>	<p>Ancient Greece – a study of Greek life and achievements and their influence on the western world</p>

		Influence of space in the 1960's on art, music & fashion The media & transfer of information	
Geography	Viking settlements Maps/atlasses/ globes/ digital computer mapping – locate countries 8 points of compass 4 & 6 figure grid references Symbols & key – Ordnance survey maps	Identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, The Tropics of Cancer and Capricorn, Arctic and Antarctic circle, the prime/ Greenwich Meridian and Time Zones (including day and night)	Using World maps Locating the country of Greece Expansion of the Greek Empire.
Art	Viking themed sketching Watercolour painting	Objects and meanings Look at space design/architecture from 1960s including Pop Art Record observational drawings in charcoal, pen, pencil Use a range of art materials to create art works, based on space design. Evaluate designs	Sculpture Look at masks from other cultures Explore paper folding techniques Design and make a Greek theatre mask from papier mache Evaluate designs
DT	Bread making	Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] to make moving toys.	Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design to make Greek masks. Understand and apply the principles of a healthy and varied diet.
RE	Jesus' teaching and its impact on people Christian creed	Islam – Mohammed Judaism – Places of Worship Christmas- angels	Sacred texts Hinduism- concept of God/ worship at home
PSHE	Say No To Bullying Going for Goals British Values – mutual respect	New Beginnings Getting On and Falling Out British Values - tolerance	British Values – democracy & rule of law Good To Be Me Sex and Relationship Education

PE	Gymnastics – Bridges Gymnastics - Body Management, Floor Exercise & Vault Invasion Games – Hockey Invasion Games - Football	Dance – Outer Space Indoors Athletics for Sportshall Competition Invasion Games – Ball Handling	Gymnastics – Flight Golden Mile / Athletics Athletics - Sports Day Northwich School Games Festival Greek Dance Rounders
Music	Brass Instrument tuition Performance – Easter Service	Brass Instrument tuition Performance – Carol Concert	Brass Instrument tuition Musical Performance
MFL	At school – Classroom objects Days of the week, months of the year, birthdays, me and my family, colours, where we live, descriptions face & body, clothes	Animals – names , favourites, pets Sports, food, weather – favourites, likes, dislikes, Weather reports	
Visits	Barclays Bank	Lakeside residential	The World Museum - Greeks

For more information on the statutory requirements in all subjects, including English and Maths please follow the link:

<https://www.gov.uk/government/publications/national-curriculum-in-england-primary-curriculum>