

Year 5 Maths						
Reads, writes, orders and compares numbers to at least 1,000,000 and determines the value of each digit	Interprets negative numbers in context, counts forwards and backwards with positive and negative whole numbers including through zero	Adds and subtracts whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction)	Numbers mentally with increasingly large numbers (e.g. $12,462 - 2,300 = 10,162$ )	Identifies multiples and factors including finding all factor pairs of a number and common factors of two numbers	Solves problems involving multiplication and division including using a knowledge of factors and multiples, squares and cubes	Solves problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates
Compares and orders fractions whose denominators are all multiples of the same number		Reads and writes decimal numbers as fractions e.g. $0.71 = 71/100$		Reads, writes, orders and compares numbers with up to three decimal places		
Solves problems which require knowing percentage and decimal equivalents of $1/2, 1/4, 1/5, 2/5, 4/5$ and those fractions with a denominator of a multiple of 10 or 25	Converts between different units of metric measure (eg kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)		Measures and calculates the perimeter of composite rectilinear shapes in centimetres and metres		Calculates and compares the area of rectangles (including squares), and including using standard units, square centimetres (cm <sup>2</sup> ) and square metres (m <sup>2</sup> )	
Draws given angles and measures them in degrees (°)		Distinguishes between regular and irregular polygons based on reasoning about equal sides and angles		Completes, reads and interprets information in tables, including timetables		

Year 5 Reading				
Applies a growing knowledge of root words, prefixes and suffixes (morphology and etymology) - as listed in English appendix 1 of the national curriculum document - both to read aloud and to understand the meaning of new words that are met	Increases familiarity with a wide range of books including myths, legends and traditional stories, modern fiction, fiction from our literary heritage, and books from other cultures and traditions		Checks that the book makes sense to the reader, discussing the individual's understanding and exploring the meaning of words in context	Summarises the main ideas drawn from more than one paragraph, identifying key details that support the main ideas
Retrieves, records and presents information from non-fiction	Participates in discussions about books that are read to the child and those that can be read independently		Provides reasoned justifications for their views about a book	

Year 5 Writing					
Identifies the audience for, and purpose of, the writing, e.g. formal/ informal texts	Selects the appropriate form and uses other similar writing as models for their own	Proof-reads for spelling and punctuation errors	Ensures the consistent and correct use of tense throughout a piece of writing	Uses further organisational and presentational devices to structure text and to guide the reader (eg headings, bullet points, underlining)	Describes settings, characters and atmosphere with suitable detail, e.g. relative clauses, prepositional phrases, subordination and coordinating conjunctions
Converts nouns or adjectives into verbs using suffixes (eg -ate; -ise; -ify)	Indicates degrees of possibility using adverbs (eg perhaps, surely) or modal verbs (eg might, should, will, must)		Uses devices to build cohesion within a paragraph (eg then, after that, this, firstly)	Uses commas to clarify meaning or avoid ambiguity	Maintains legibility, fluency and speed at an age-appropriate level

**Year 5 Science**

<p><b>Animals, including humans</b> -describe the changes as humans develop to old age</p> <p><b>Earth and Space</b> -describe the movement of the Earth, and other planets relative to the Sun in the solar system -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</p>	<p><b>Properties and changes of materials</b> -compare and group together everyday materials based on evidence from comparative and fair tests, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets -know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution -use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating give reasons, based on evidence from comparative and fair tests, for the particular -uses of everyday materials, including metals, wood and plastic demonstrate that dissolving, mixing and changes of state are reversible changes -explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, include changes associated with burning and the action of acid on bicarbonate of soda</p>	<p><b>Living things and their habitats</b> -describe the difference in the life cycles of a mammal, an amphibian an insect and a bird describe the life process of reproduction in some plants and animals</p> <p><b>Forces</b> -explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object -identify the effect 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</p>	<p><b>Working scientifically</b> -plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary -use test results to make predictions to set up further comparative and fair tests -take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate -record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs, report and present findings from enquiries, including conclusions, causal relationships and explanations results, explanations of and degree of trust in results, in oral and written forms such as displays and other presentations -identify scientific evidence that has been used to support or refute ideas or arguments.</p>
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**Year 5 History**

<p><b>A non-European Society –Civil Rights in North America- Rosa Parks, Martin Luther-King, Malcolm X</b> <b>Key concept:</b> Rights/ laws/ justice <b>Know how to:</b> Enquire/ ask valid questions/ use a range of sources to look for evidence <b>Key questions:</b> Why was the Civil Rights Movement so important? How did life change for African-Americans after the law was changed? What important speeches were made to persuade the politicians to change the law? What important actions were taken? Who is right and who is wrong, how do you know? What is the right way? Why did Rosa Parks give up her seat? <b>Key vocabulary:</b> Civil, citizen, discrimination, segregation, slavery, law, politician, movement</p>	<p><b>Early Civilisations- Ancient Egyptians</b> <b>Key concept:</b> Religion/ beliefs <b>Know how to:</b> Secure chronologically knowledge/ look for connections/ contrasts and trends over time <b>Key questions:</b> Why did the Ancient Egyptians believe in the Afterlife? How did they build the pyramids? Do you think it was right to use slaves for such a vanity project? Why was it useful to live by the river? <b>Key vocabulary:</b> Afterlife, amulet, Amun, canopic jars, hieroglyphics, sarcophagus, sphinx,</p>	<p><b>Local History link- Highwayman Higgins/ Courts &amp; Justice</b> <b>Key concept:</b> Rights/ laws/ justice <b>Know how to:</b> Look for connections/ contrasts and trends over time <b>Key questions:</b> How has our laws and justice changed over time? What would be the punishment for stealing today? Are there people around today who con other to gain money? <b>Key vocabulary:</b> Social, gentleman, gentry, convicted, arrested, sentenced</p>
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### Year 5 Geography

<p>North America- link to history Civil Rights/ water</p> <p><b>Key concept:</b> Place- physical/ human</p> <p><b>Key location:</b> Mississippi River</p> <p><b>Know how to:</b> Collect, analyse and communicate using information gathered first hand</p> <p><b>Key questions:</b> Where is the Mississippi River? How long is it? How many states does it flow through? What is the river used for? What role did the river play in the civil war? Where is the source?</p> <p><b>Key vocabulary:</b> Tributaries, continental, delta, meandering, floodplain, oxbow lakes, dams,</p>	<p>River Nile</p> <p><b>Key concept:</b> Trade/ Economy</p> <p><b>Key location:</b> Egypt/ River Nile</p> <p><b>Know how to:</b> Interpret sources of information (maps, diagrams, globes, aerial photographs)/ use simple compass directions and locational/ directional language</p> <p><b>Key questions:</b> Where is the River Nile? How long is it? What is the river used for? Where is the source of the river? Why did the Ancient Egyptians live near the river? Why was the river so important to Ancient Egyptians?</p> <p><b>Key vocabulary:</b> fertile, valley, flood, tributary, floodplain, meandering, Mediterranean</p>	<p>Improving our local area, how is Knutsford changing?</p> <p><b>Key concept:</b> Change/ sustainability</p> <p><b>Key location:</b> Knutsford</p> <p><b>Know how to:</b> Interpret sources of information (maps, diagrams, globes, aerial photographs)</p> <p><b>Key questions:</b> Why are people attracted to Knutsford? Why do people live in Knutsford? What attracts people to visit Knutsford? What would improve Knutsford? Could you give a guided tour to a visitor?</p> <p><b>Key vocabulary:</b> town, population, urban, farming, parish, churches, heath, river, lake, historical</p>
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### Year 5 Design and Technology

<p><b>Design, make and improve</b></p> <ul style="list-style-type: none"> <li>-Investigate existing products, including drawing them to analyse and understand how they are made.</li> <li>-Plan a sequence of actions to make a product.</li> <li>-Develop more than one design.</li> <li>-Develop prototypes.</li> <li>-Refine work and techniques as work progresses, continually evaluating the product design.</li> <li>-Identify strengths and weaknesses of their design ideas.</li> <li>-Talk about how closely their finished product meets their design criteria and meets the need of the user.</li> </ul>	<p><b>Cooking and nutrition</b></p> <ul style="list-style-type: none"> <li>-Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs).</li> <li>-Measure ingredients using scales.</li> <li>-Prepare ingredients hygienically and using the appropriate utensils by following a recipe.</li> </ul>	<p><b>Construction, mechanics and electronics</b></p> <ul style="list-style-type: none"> <li>-Investigate how to make structures more stable e.g by widening the base.</li> <li>-Understand and use mechanical structures in their products e.g. gears, pulleys, levers and gears.</li> </ul>	<p><b>Materials</b></p> <ul style="list-style-type: none"> <li>-Measure and mark out to the nearest mm.</li> <li>-Use and explore complex pop-ups.</li> <li>-Cut slots and internal shapes.</li> <li>-Create nets.</li> </ul>
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### Year 5 Art

<p><b>Drawing</b></p> <p>Use a choice of techniques to depict movement, perspective, shadows and reflections. Use lines to represent movement.</p>	<p><b>Painting</b></p> <p>Sketch (lightly) before painting to combine line and colour. Use the qualities of watercolour and acrylic paints to create visually interesting pieces. Combine colours, tones and tints to enhance the mood of a piece.</p>	<p><b>Collage</b></p> <p>Mix textures (rough and smooth, plain and patterned).</p>	<p><b>Sculpture</b></p> <p>Show life-like qualities and real-life proportions or, if more abstract, provoke different interpretations. Use tools to carve and add shapes, textures and pattern.</p>	<p><b>Print</b></p> <p>Build up a layer of colours.</p>
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### Year 5 Computing

<p><b>Information Technology</b></p> <ul style="list-style-type: none"> <li>-To type and design an information booklet.</li> <li>-To enter formulae into a spread sheet to solve calculations and model scenarios, including using =SUM() and statistical functions.</li> <li>-To change the format of cells of cells using: text alignment, borders and data types.</li> <li>-To create pictures using drawing tools (shapes).</li> <li>-To create a multimedia on-screen presentation over several slides, adding animation and transition effects to enhance it.</li> <li>-To compare ways for manipulating digital images to enhance them.</li> </ul>	<p><b>Digital Literacy</b></p> <ul style="list-style-type: none"> <li>To compare online encyclopaedias for doing Internet research on.</li> <li>To cross-reference search results to help validate information on them.</li> <li>To describe online hazards and how to respond to them safely.</li> <li>To explain the 'Zip it, Block it, Flag it' slogan.</li> <li>-To understand what is meant by the term 'digital footprint' and describe strategies for reducing it.</li> <li>-To know how to stay safe when watching and recording vlogs.</li> <li>-To compare techniques used for manipulating and putting pressure on people online.</li> <li>-To understand how to safely send text messages.</li> </ul>	<p><b>Computer Science</b></p> <ul style="list-style-type: none"> <li>- To design and program games that include variables (e.g. for a score counter) and changing object properties (e.g. the speed and direction of a moving car).</li> <li>-To use generate random numbers in code.</li> <li>-To detect and correct errors in programs (syntax and logical bugs).</li> </ul>	<p><b>Computer Science- theory</b></p> <ul style="list-style-type: none"> <li>-To understand how digital images are stored and displayed on a computer.</li> <li>-To describe the impact of technology on society, including on people's: spiritual, moral, social and cultural development.</li> <li>-To understand what e-commerce is and what its impact is.</li> <li>-To find out about the history of computing.</li> <li>-To describe uses of GPS.</li> </ul>
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### Year 5 RE

<p><b>Essential Content: Christianity</b></p> <ul style="list-style-type: none"> <li>-Explain how the celebration of Easter links to the idea of Jesus reconciling people to God so that Christians can live forgiven in relationship with God, (sacrifice and reconciliation).</li> <li>-Suggest answers to questions that the resurrection of Jesus might raise.</li> <li>-Identify ways that Christians believe God is with them: prayer; worship; peace in hard times.</li> <li>-Explain using key texts, (e.g. parables, miracles, teaching) the Christian idea of the 'Kingdom of God' and how Christians seek to live to advance the Kingdom on earth. Example key texts: Beatitudes; The</li> </ul>	<p><b>Essential Content: Islam</b></p> <ul style="list-style-type: none"> <li>-Identify and understand that Muslims believe the Prophets who came before Muhammad (pbuh) all taught the same message.</li> <li>-Explain how Muslims believe that Muhammad (pbuh) is the last and final prophet.</li> <li>-Understand Muslims believe that to have 'inner peace with God' humans must follow and submit to Allah's guidance and will</li> <li>-Explain and assess how all Muslims are part of the 'Ummah' by showing how the Five Pillars enable Muslims to have peace with God.</li> </ul>	<p><b>Essential Content: Hinduism</b></p> <ul style="list-style-type: none"> <li>-Identify key Hindu symbols and explain their meaning, e.g. Aum, Swastika.</li> <li>-Describe how and suggest why Hindus celebrate Diwali and Holi.</li> <li>-Compare/contrast Hindu ways of welcoming a child with all religious/non-religious views previously studied.</li> <li>-Compare and contrast Hindu ways of understanding family with other religious/non-religious views about family.</li> </ul>	<p><b>Cross Religious/ /Non-Religious Viewpoints</b></p> <ul style="list-style-type: none"> <li>-Outline, compare and contrast key Christian, Hindu and Muslim beliefs about God and make links to other perspectives and viewpoints. Identify some of the reasons people believe/don't believe in God.</li> <li>-Compare and contrast Christians/Hindu/Muslim pilgrimages and reflect on how they affect believers.</li> <li>-Compare &amp; contrast what motivates people of a religious faith (e.g. Christian, Hindu and Muslim) and a non-religious belief to work together to impact UK society &amp; the wider world through</li> </ul>
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<p>Lord's Prayer; Jesus' Temptations; Parables of the Kingdom.</p> <p>-Describe how signs of salvation in a church reinforce the Christian idea of forgiveness.</p> <p>-Analyse how diverse expressions of Christian worship can reinforce faith &amp; belief.</p>	<p>-Explain why the Qur'an is so important to Muslims.</p>		<p>environmental and global charities, e.g. Islamic Aid, Christian Aid.</p> <p>-Investigate by gathering, selecting, organising or refining questions and ideas about religion/non-religious viewpoints.</p>
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### Year 5 Relationships and Health Education

#### Relationships

<p><b>Families and people who care about me</b></p> <p>-That families are important for children growing up because they can give love, security and stability</p>	<p><b>Caring Friendships</b></p> <p>- that healthy <a href="#">relationships</a> are positive and welcoming towards others, and do not make others feel lonely or excluded</p> <p>That most friendships have <a href="#">ups and downs</a>, and that these can often be worked through so that the friendship is repaired or even strengthened, and that resorting to violence is never right</p>	<p><b>Respectful Relationships</b></p> <p>-The importance of self-respect and how this links with their own happiness</p> <p>-About different types of bullying (including cyberbullying), the impact of bullying, responsibilities of bystanders (primarily reporting bullying to an adult) and how to get help</p>	<p><b>Online Relationships</b></p> <p>-How to <a href="#">critically</a> consider their online friendships and sources of information including awareness of the risks associated with people they have never met</p> <p>-How pressure to behave in unacceptable, unhealthy or risky ways can come from a variety of sources, including people they know and the media</p>	<p><b>Being Safe</b></p> <p>-to understand personal boundaries; to identify what they are willing to share with their most special people; friends; classmates and others; and that we all have rights to <a href="#">privacy</a></p> <p>-How to ask for advice or help for themselves or others, and to keep trying until they are heard</p>
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#### Physical Health and Mental Wellbeing

<p><b>Mental Wellbeing</b></p> <p>-How to judge whether what they are feeling and how they are behaving is appropriate and proportionate</p> <p>-Simple self-care techniques, including the importance of rest, time spent with friends and family and the benefits of hobbies and interests</p>	<p><b>Internet Safety and Harms</b></p> <p>-The responsible use of mobile phones... and safe user habits (time limits, turning it off at night etc.)</p> <p>-The internet can also be a negative place where online abuse, trolling, <a href="#">bullying</a> and harassment can take place, which can have a negative impact on mental health</p>	<p><b>Physical Health and Fitness</b></p> <p>-The risks associated with an inactive lifestyle (including obesity)</p>	<p><b>Healthy Eating</b></p> <p>-The principles of planning and preparing a range of <a href="#">healthy meals</a></p>	<p><b>Health and Prevention</b></p> <p>-About <a href="#">personal hygiene</a> and germs including bacteria, viruses, how they are spread and treated, and the importance of handwashing</p>	<p><b>Basic First Aid</b></p> <p>- school rules about health and safety, basic emergency aid procedures, where and how to get help</p>	<p><b>Changing Adolescent Body</b></p> <p>- Key facts about puberty and the changing adolescent body, including physical and emotional changes</p>
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**Year 5 PE**

<p><b>Games</b></p> <ul style="list-style-type: none"> <li>- Choose and combine techniques within a game (running, throwing, catching, passing, jumping and kicking)</li> <li>- Work alone/ with team mates to gain points/ possession</li> <li>- Strike a bowled/ volleyed ball</li> <li>- Field, defend and attack tactically by anticipating the direction of play</li> <li>- Uphold the spirit of fair play and respect in all competitive situations (e.g. whilst taking part in games such as tag rugby and mini golf)</li> </ul>	<p><b>Dance</b></p> <ul style="list-style-type: none"> <li>- Change speed and levels within a performance</li> <li>- Compose creative/ imaginative dance sequences</li> <li>- Perform expressively and hold a precise/ strong body posture</li> <li>- Develop physical strength and suppleness by practicing moves and stretching.</li> <li>- Plan, create and perform complex sequences</li> <li>- Express different ideas in original and imaginative ways</li> <li>- Use styles from different cultures (e.g. Bollywood and African dances)</li> </ul>	<p><b>Gymnastics</b></p> <ul style="list-style-type: none"> <li>- Plan, perform and repeat sequences</li> <li>- Create complex and well executed sequences that include a full range of movements including:             <ul style="list-style-type: none"> <li>Travelling</li> <li>Balances</li> <li>Swinging</li> <li>Springing</li> <li>Flight</li> <li>Vaults</li> <li>Inversions</li> <li>Rotations</li> <li>Bending, stretching and twisting</li> <li>Gestures</li> <li>Linking skills</li> </ul> </li> <li>- Hold shapes that are strong, fluent and expressive</li> <li>- Vary speed, direction, level and body rotation during floor performances</li> <li>- Practise and refine the gymnastics techniques used in performances (above)</li> <li>- Use equipment to vault and to swing (whilst remaining upright)</li> </ul>	<p><b>Athletics</b></p> <ul style="list-style-type: none"> <li>- Combine sprinting with low hurdles over 60 metres</li> <li>- Throw accurately when hitting a target or covering a distance</li> <li>- Use a range of throwing techniques (under/ over arm)</li> <li>- Run over a longer distance, conserving energy in order to sustain your performance</li> <li>- Show control in take-off and landing whilst jumping</li> <li>- Compete with others and keep track of personal best performances, setting targets for individual improvement</li> </ul>
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**Year 5 MFL**

<p>I can say and sing the French alphabet; ask how to spell a word; spell out a name in French. I can use numbers and letters to give co-ordinates; use multiples of 10 up to 60; recognise and say some places on the locality. I can follow simple directions; read and understand a short description of a journey. I can build sentences and phrases to make a coherent text. I can understand and give simple directions.</p>	<p>I can say the date and have some knowledge of a French celebration. I can talk about what has been eaten and drunk and express likes, dislikes and preferences. I am able to read and understand a simple recipe for biscuits. Revision of an/en and au/eau</p>	<p>I can recognise and say the names of the 9 planets. I can answer questions about the planets and make sentences to describe the planets. I can make complex sentences in French about the planets and I can prepare a short presentation.</p>	<p>I know the months and seasons in French. I can combine seasons and weather to make longer phrases. I can read and understand and join in a poem. I am able to describe the seasons using colours and antonyms.</p>	<p>I can use colours to give a simple description of a scene. I can use verbs to extend your description and have some understanding of word order. I can put together short sentences showing an understanding of word order. I am able to use new and previously learnt language to create a poem.</p>
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