 Year 5 Curriculum Document

Topics and specified areas:

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| Term | Autumn | Spring | Summer |
| Topic | Invaders and Settlers | Infinity and Beyond | Maverick Mayans/Brilliant Benin |
| Science | Chemistry | Physics | Biology |
| Geography | Locational Knowledge of Europe | Structure of the Earth (Extreme Earth) | Locational Knowledge of the WorldPlace Knowledge  |
| History | Anglo Saxons and Vikings | Pompeii | Mayans/Benin |
| Computing | To Code | To Collect | To Connect/Communicate |
| RE | Christianity | Islam/Judaism | Hinduism |
| PSHE | Being Me/Celebrating Difference | Dreams and Goals/Healthy Me | Relationships/Changing Me |
| MFL | Getting to know you/All about ourselves | That’s tasty/Family and friends | School life/Time travelling |

Free choice Curriculum areas:

 English, Art, Design and Music must be covered using the attached skills but can be done so at teacher discretion throughout the year. Maths follows the Head Start Framework timings.

Themes and Experiences:

Alongside our Topic Curriculum as a school we will be holding Theme Days and Weeks. These will be focusing on providing our children with experiences and skills they need to succeed both in learning and life.

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| Autumn | Spring | Summer |
| Being Church Lane Days (Focus Question: What skills do we need to succeed at Church Lane?)School Values/Resilience DaySleaford DayScience DayAwareness DayDesign Technology Week | School Values/Resilience DayE-Safety DaySleaford DayCareers Day | School Values/Resilience DayMental Health DayEntrepreneur Week (Fayre – crafts)Healthy Living Day (Fayre – games)Sleaford Day |

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| English |
| To write with purpose* Identify the audience for writing
* Choose the appropriate form of writing using the main features
* Note, develop and research ideas
* Plan, draft, write, edit and improve
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| To use imaginative description* Use the techniques authors use to create characters, settings and plots
* Use alliteration and similes
* Use metaphors
* Use personification
* Interweave descriptions of characters, settings and atmosphere with dialogue
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| To organise writing appropriately * Guide the reader using a range of organisational devices including a range of connectives and bullet points
* Choose effective grammar and punctuation
* Ensure correct use of tenses throughout a piece of writing
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| To use paragraphs* Write paragraphs that give the reader a sense of clarity
* Write paragraphs that make sense if read alone
* Write cohesively at length
 |
| To use sentences appropriately* Use a mixture of simple, compound and complex sentences

Write sentences that include:* Relative clauses
* Modal verbs
* Parenthesis
* A mix of active and passive
* The subjunctive form
* The perfect form
* Expanded noun phrases
* Adverbs and adverbial phrases
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| To present neatly* Write fluently and legibly with a personal style
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| To punctuate accurately* Use brackets
* Use hyphens
* Use colons
* Use semi colons
* Use commas to clarify meaning or avoid ambiguity
* Use dashes
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| Reading |
| To read words accurately* Apply knowledge of root words, prefixes and suffixes
* Read age appropriate books with confidence and fluency
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| To understand texts* Participate in discussions about books and recommend books to peers, giving reasons for choices
* Identify and discuss themes and conventions in and across a wide range of writing - make comparisons within and across books
* Learn a wide range of poetry by heart
* Prepare poems and plays to read aloud and to perform
* Check that the book makes sense, discussing understanding and exploring the meaning of words in context - ask questions to improve understanding
* Draw inferences, justify them with evidence
* Predict what may happen
* Summarise the main ideas drawn from more than one paragraph, identifying key details that support the main ideas
* Identify how language, structure and presentation contribute to meaning
* Discuss and evaluate how authors use language, including figurative language, considering the impact on the reader
* Retrieve and record information from non-fiction
* Distinguish between fact and opinion
* Justify views
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| Communication |
| To listen carefully and understand* Understand how to answer questions requiring more than a single sentence response
* Recognise and explain some idioms
* Understand irony
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| To develop a wide and interesting vocabulary* Use adventurous and sophisticated vocabulary
* Understand the meaning of words and offer alternative synonyms or antonyms
* Use a wide range of phrases that include determiners, modifiers and other techniques to add extra interest and clarity
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| To speak with clarity* Vary the length and structure of sentences
* Ask questions and make suggestions to take an active part in discussions
* Comment on the grammatical structure of a range of spoken and written accounts
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| Tell stories with structure* Narrate detailed and exciting stories using the conventions and structure appropriate to the type of story being told
* Interweave action, character descriptions, settings and dialogue
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| To hold conversations and debates* Negotiate and compromise by offering alternatives
* Debate, using relevant details to support points
* Offer alternative explanations when others don’t understand
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| Maths (Year 5) |
| Place value * Read, write, compare and order numbers to a million
* Roman numerals to 1,000
* Round to the nearest 10, 100, 1,000, 10,000, 100,000 and million
* Negative numbers
 |
| Addition and subtraction * Add and subtract numbers with more than 4 digits
* Round to estimate and approximate
* Inverse operations (addition and subtraction)
* Multi-step addition and subtraction problems
 |
| Statistics* Draw, read and interpret line graphs
* Use line graphs to solve problems
* Read and interpret tables
* Two way tables
* Timetables
 |
| Multiplications and division* Multiples, factors and common factors
* Prime numbers, squared numbers and cubed numbers
* Multiplying and dividing by 10, 100 and 1000
 |
| Measurement (perimeter and area)* Measure and calculate perimeter
* Area of rectangles, compound shapes and irregular shapes
 |
| Multiplication and division* Multiply 4-digits by 1-digit
* Multiply 2-digits (area model)
* Multiply 2 digits by 2 digits, 3 digits by 2-digits, 4-digits by 2-digits
* Divide 4-digits by 1-digit with remainders
 |
| Fractions * Equivalent fractions
* Improper fractions to mixed numbers and vice versa
* Number sequences
* Compare and order fractions less and greater than one
* Add and subtract fractions (within one and breaking the whole)
* Add three or more fractions
* Add and subtract mixed numbers
 |
| Decimals and percentages* Decimals up to two decimal places
* Decimals as fractions (including thousandths)
* Rounding, ordering and comparing decimals
* Understand percentages
* Equivalent percentages/decimals/fractions
 |
| Decimals* Adding and subtracting decimals within one and complements to one
* Adding decimals (crossing the whole)
* Adding and subtracting decimals with the same and different number of decimal places
* Adding and subtracting wholes and decimals
* Decimal sequences
* Multiplying and dividing decimals (by 10, 100 and 1,000)
 |
| Properties of shape* Measuring angles in degrees with a protractor
* Drawing lines and angles accurately
* Calculating angles on a straight line and around a point
* Calculating lengths and angles in shapes
* Regular and irregular polygons
* Reasoning about 3D shapes
 |
| Position and direction* Position in the first quadrant
* Reflection with co-ordinates
* Translation with co-ordinates
 |
| Measurement (converting units)* Converting kg/g km/m ml/mg
* Metric and imperial units
* Converting units of time
* Timetables
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| Measurement (volume)* What is volume?
* Compare and estimate volume
* Estimate capacity
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| Science |
| Working scientifically* Plan enquiries including recognising and controlling variables when necessary
* Use appropriate techniques, apparatus and materials during fieldwork and lab work
* Take measurements using a range of scientific equipment with increasing accuracy and precision
* Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, bar and line graphs and models
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| BiologyTo understand animals and humans* Describe the changes as humans develop to old age
* Identify and name the main parts of the human circulatory system and describe the functions of the heart, blood vessels and blood
* Recognise the importance of diet, exercise, drugs and lifestyle on the way the human body functions
* Describe the ways in which nutrients and water are transported within animals including humans

To investigate living things* Describe the differences in the life cycle of a mammal, amphibian, insect and bird
* Describe the life process of reproduction in some plants and animals
* Describe how living things are classified in to broad groups according to common, observable characteristics
* Give reasons for classifying plants and animals based on specific characteristics
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| ChemistryTo investigate materials* Compare and group together everyday materials based on evidence from comparative and fair tests
* Understand how 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 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
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| PhysicsTo understand movement, forces and magnets* Describe magnets as having two poles
* Predict whether two magnets will attract or repel each other
* Explain that unsupported objects fall towards the Earth because of the force of gravity
* Identify the effect of drag forces e.g. air resistance, water resistance and friction
* Understand that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect

To understand the Earth’s movement in space* 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
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| Geography |
| To investigate places* Use different types of fieldwork sampling to observe, measure and record the human and physical features in the local area and record the results in a range of ways
* Name and locate some of the countries and cities of the world and their identifying human and physical characteristics including: hills, mountains, rivers, key topographical features and land use patterns; and understand how some of these aspects have changed over time
* Name and locate the countries of North and South America and identify their main physical and human characteristics
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| To investigate patterns* Identify and describe the geographical significance of latitude, longitude, equator, northern and southern hemisphere, tropics of Cancer and Capricorn, arctic and Antarctic circle and time zones
* Understand some of the reasons for geographical similarities and differences between countries
* Describe how locations around the world are changing and explain some of the reasons for change
* Describe geographical diversity across the world
* Describe how countries and geographical regions are interconnected and interdependent
 |
| To communicate geographically* Describe and understand key aspects of physical geography including: climate zones, biomes and vegetation belts, rivers, mountains. Volcanoes, earthquakes and the water cycle
* Describe and understand key aspects of human geography including: settlements, land use, economic activity including trade links and the distribution of natural resources including energy, food, minerals and water supplies
* Use the eight points of a compass, four figure grid references, symbols and a key to communicate knowledge to the UK and the world
* Create maps of locations
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| History |
| To investigate and interpret the past* Use suitable sources of evidence to deduce information about the past (explain why it is suitable)
* Use sources of information to for testable hypotheses about the past
* Seek and analyse a wide range of evidence in order to justify claims about the past
* Show an awareness of the concept of propaganda and how historians must understand the social context of evidence studied
* Understand that no single source of evidence gives the full answer to questions about the past
* Refine lines of enquiry as appropriate
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| To build an overview of world history* Identify continuity and change in the history of the locality of the school
* Compare times studied to those studied in previous years
* Describe the social, ethnic, cultural or religious diversity of past society
* Describe the characteristic features of the past including ideas, beliefs, attitudes and experiences of men, women and children
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| To understand chronology* Describe the main changes in a period of history
* Identify periods of rapid change in history and contrast them with times of relatively little change
* Use dates and terms accurately in describing events
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| To communicate historically* Use appropriate historical vocabulary including: dates, time period, era, chronology, continuity, change, century, decade and legacy
* Use English, Maths and ICT skills to communicate information about the past
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| Computing |
| To code* Use IF, THEN and ELSE conditions to control events or objects
* Use a range of sensing tools to control events or actions
* Use lists to create a set of variables
* Use the Boolean operators ( ) < ( ), ( ) = ( ), ( ) > ( ), ( ) and ( ), ( ) or ( ), not ( )
* Use the Reporter operators ( ) + ( ), ( ) - ( ), ( ) \* ( ), ( ) / ( )
* Pick random ( ) to ( ), join ( ) ( ), letter ( ) of ( ), ( ) Mod ( )
 |
| To connect* Collaborate with others online on sites approved and moderated by teachers
* Give examples of the risks of online communities and how to report problems
* Understand it is illegal to download copyrighted material including music or games without permission from the holder
* Understand the effect of online comments and show responsibility and sensitivity when online
* Understand how simple networks are set up and used
 |
| To communicate* Choose the most suitable applications and devices for the purposes of communication
* Use many of the advanced features in order to create high quality professional or efficient communications
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| To collect* Select appropriate applications to devise, construct and manipulate data and present it in an effective and professional manner
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| Art and design |
| To develop ideas* Collect information, sketches and resources and present ideas
* Use the qualities of materials to enhance ideas
* Spot the potential in unexpected results as work progresses
* Comment on artists with a fluent grasp of visual language
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| To master techniquesDrawing* Use a variety of techniques to add interesting effects
* Use a choice of techniques to depict movement, perspective, shadows and reflection
* Choose a style of drawing suitable for the work

Painting * Sketch before painting
* Create a colour palette
* Use watercolours/acrylic paints
* Combine colours, tones and tints to enhance the mood
* Use brush techniques to create texture
* Develop a personal style of painting, drawing upon ideas from other artists

Collage* Mix textures
* Combine visual and tactile qualities
* Use ceramic mosaic materials and techniques

Sculpture* Show lifelike qualities and real life proportions or abstract interpretations
* Use tools to carve and add shapes, texture and pattern
* Combine visual and tactile qualities
* Use frameworks to provide stability and form

Print* Build up layers of colours
* Create an accurate pattern showing fine detail
* Use a range of visual elements to reflect the purpose of the work
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| To take inspiration from the greats* Give details about the style of some notable artists
* Show how the work of those studied was influential in society and to other artists
* Create original pieces that show a range of influences and styles
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| Design and technology |
| To master practical skillsFood* Understand the importance of the correct storage and handling of ingredients
* Measure accurately and calculate ratios of ingredients
* Demonstrate a range of baking and cooking techniques
* Create and refine recipes including ingredients, methods, cooking times and temperatures

Materials* Cut materials with precision and refine the finish with appropriate tools
* Show an understanding of the qualities of materials to choose appropriate tools to cut and shape

Construction* Develop a range of practical skills to create products

Mechanics* Convert rotary motion to linear using cams
* Use innovative combinations of electronics and mechanics in product designs
 |
| To design, make, evaluate and improve* Design with the user in mind
* Make products through stages of prototypes making continual refinements
* Ensure products have a high quality finish
* Use prototypes, cross sectional diagrams and computer aided designs to represent designs
 |
| To take inspiration from design throughout history* Combine elements of design from a range of inspirational designers throughout history giving reasons for choices
* Create innovative designs that improve upon existing products
* Evaluate the design of products so as to suggest improvements to the user experience
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| Music |
| To perform* Sing or play from memory with confidence
* Perform solos or as part of an ensemble
* Sing or play expressively and in tune
* Hold a part within a round
* Sing a harmony
* Sustain a drone to accompany singing
* Perform with controlled breathing and skilful playing
 |
| To compose* Create songs with verses and a chorus
* Create rhythmic patterns with an awareness of timbre and duration
* Combine a variety of musical devices including melody, rhythm and chords
* Thoughtfully select elements for a piece in order to gain a defined effect
 |
| To transcribe* Use the standard notation of crotchet, minim and semibreve to indicate how many beats to play
* Read and create notes on the musical stave
* Understand the purpose of the treble and bass clefs and use them in transcribing compositions
 |
| To describe music and lyrics using the following vocabulary* Pitch/dynamics/tempo/timbre/texture/lyrics/melody/expressive/solo/rounds/harmonies/accompaniments/drones/cyclic patterns/combination of musical elements/cultural context
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| RE |
| Christianity* Learn/understand how Christians express their beliefs collectively
* Learn/understand how Christian worship and celebration build a sense of community

Islam * Learn/understand how Muslim worship and celebration build as sense of community
* Learn/understand how Muslims worship is expressed collectively
* Learn/understand how Muslims show they belong

Hinduism * Learn/understand how Hindu belief is expressed personally and collectively
* Learn/understand how Hindu worship and celebration build a sense of community
* Learn/understand how Hindus feel they belong
* Learn/understand the big questions asked by religions/belief systems

Judaism* Learn/understand the big questions asked by religions/belief systems
* Learn/understand the diverse ways in which religious and non religious people express their beliefs through art
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| PSHE (Jigsaw) |
| Areas:* Being me in my world
* Celebrating difference
* Dreams and goals
* Healthy me
* Relationships
* Changing me
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| MFL (French) |
| Getting to know you * Look what I can do
* When I grow up
* How do you spell that?
* How are you feeling?
* What am I going to do?
* Je me presente

All about ourselves* The body
* What do I look like?
* What are you doing?
* Fashion
* How are you feeling today?
* What’s the matter?

That’s tasty* I’m thirsty
* Open and closed
* Breakfast
* Sandwiches
* I like to eat
* Pizzas

Family and Friends* Meet the family
* At the farm
* I live in a
* In my house
* Do you like animals?
* What can I say?

School life* Where are they in the classroom?
* Where are the objects?
* School subjects
* Maths lesson
* Asking questions

Time travelling* Count with me
* I’m 500 years old
* French history
* What year was it?
* I was born …
* Famous lives
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