George Fentham Endowed School Year 6 Curriculum Overview

	Autumn Term	Spring term	Summer Term
Maths	**Units** – Place Value, Four Operations, Fractions A and B,Measurement – converting units	**Units** – Ratio, Algebra, Fractions, Decimals, Fractions, decimals and percentages, Area, perimeter and volume, Statistics	**Units** – Shape, Position and Direction, Themed projects, consolidation and problem solving.
	Number - Place Value **Steps** • Numbers to 1 and 10 million • Read and write numbers to 10 million • Powers of 10 • Number line to 10 million • Compare, round and order any integer • Negative numbers **NC objectives** ▪ Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit ▪ Round any whole number to a required degree of accuracy ▪ Use negative numbers in context, and calculate intervals across zero ▪ Solve number and practical problems that involve all of the above **Number – Four Operations** **Steps** • Add and subtract integers • Common factors/multiples • Rules of divisibility • Primes to 100 • Square and cube numbers • Multiply up to a 4 digit number by a 2 digit number • Solve problems with multiplication • Short division • Division using factors • Introduction to long division • Long division with remainders • Solve problems with division	**Number –Ratio** **Steps** • Add or multiply? • Use ratio language • Introduction to the ratio symbol • Ratio and fractions • Scale drawing • Use scale factors • Similar shapes • Ratio/proportion problems • Recipes **NC objectives** • Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts • Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples • Solve problems involving similar shapes where the scale factor is known or can be found • **Number – Algebra** **Steps** • 1 step/ 2 step function machines • Form expressions • Substitution • Formulae • Form equations • Solve 1 step/2 step equations • Find pairs of values • Solve problems with 2 unknowns	**Geometry – Shape** **Steps** • Measure and classify angles • Calculate angles • Vertically opposite angles • Angles in a triangle • Angles in a triangle – special cases • Angles in a triangle – missing angles • Angles in quadrilaterals • Angles in polygons • Circles • Draw shapes accurately • Nets of 3D shapes **NC objectives** • Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles • Draw given angles, and measure them in degrees (°) (Y5) • Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles (Y5) • Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons • Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius • Draw 2-D shapes using given dimensions and angles • Recognise, describe and build simple 3-D

	• Solve multi-step problems • Order of operations • Mental calculations and estimations • Reason from known facts **NC objectives** ▪ Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why ▪ Solve problems involving addition, subtraction, multiplication and division ▪ Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy ▪ Identify common factors, common multiples and prime numbers ▪ Multiply multi-digit numbers up to four digits by a 2-digit whole number using the formal written method of long multiplication ▪ Perform mental calculations, including with mixed operations and large numbers ▪ Divide numbers up to four digits by a 2-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context ▪ Use their knowledge of the order of operations to carry out calculations involving the four operations **Number - Fractions** **Steps** ▪ Equivalent fractions and simplifying ▪ Equivalent fractions on a number line ▪ Compare and order (denominator) • Compare and order (numerator)	**NC objectives** • Use simple formulae • Generate and describe linear number sequences • Find pairs of numbers that satisfy an equation with two unknowns • Enumerate possibilities of combinations of two variables • Express missing number problems algebraically **Number – Decimals** **Steps** • Place value within 1 • Place value – integers and decimals • Round decimals • Add and subtract decimals • Multiply/divide by 10, 100 and 1000 • Multiply/divide decimals by integers • Multiply and divide decimals in context **NC objectives** • Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places • Solve problems which require answers to be rounded to specified degrees of accuracy • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • Identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places • Multiply 1-digit numbers with up to 2 • decimal places by whole numbers	shapes, including making nets **Geometry – Position and Direction** **Steps** • The first quadrant • Read and plot points in four quadrants • Solve problems with co-ordinates • Translations • Reflections **NC objectives** • Describe positions on the full coordinate grid (all four quadrants) • Draw and translate simple shapes on the coordinate plane, and reflect them in the axes **Themed Projects, consolidation and Problem Solving** • White Rose Bakery • White Rose Tours • White Rose Futures These projects have been produced with the aim of being completed in the Summer term of Year 6 following SATs and our Schemes of Learning. The projects provide an opportunity to revisit many of the skills and curriculum content covered both in Year 6 and also the rest of Key Stage 2. The projects have been designed to explore maths in real life contexts, allowing children to see how important maths is in all aspects of life. They also provide cross-curricular links where appropriate, for example, including tasks that develop design and technology skills and geographical knowledge. They also provide a great opportunity to explore and develop enterprise.

	▪ Add and subtract simple fractions ▪ Add and subtract any two fractions ▪ Add/subtract mixed numbers ▪ Multistep problems ▪ Multiply fractions by fractions/integers ▪ Divide a fraction by a fraction/integer ▪ Mixed questions with fractions ▪ Fraction of an amount/find the whole **NC objectives** ▪ Use common factors to simplify fractions; use common multiples to express fractions in the same denomination ▪ Compare and order fractions, including fractions > 1 ▪ Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions ▪ Identify common factors, common multiples and prime numbers ▪ Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why ▪ Solve problems involving addition, subtraction, multiplication and division ▪ Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams (Y5) ▪ Multiply simple pairs of proper fractions, writing the answer in its simplest form ▪ Divide proper fractions by whole numbers ▪ Associate a fraction with division and calculate decimal fraction equivalents **Measurement - Converting units** **Steps** • Metric measures • Convert/calculate metric measures • Miles and kilometres • Imperial measures	▪ Use written division methods in cases where the answer has up to 2 decimal places ▪ Solve problems involving addition, subtraction, multiplication and division **Number – Fractions, Decimals and Percentages** **Steps** ▪ Decimals and fraction equivalents ▪ Fractions as division ▪ Understand percentages ▪ Fractions to percentages ▪ Equivalent fractions, decimals, percentages ▪ Order fractions, decimals, percentages ▪ Percentage of an amount – 1 step ▪ Percentage of an amount – multi step ▪ Percentages – missing values **NC objectives** ▪ Use common factors to simplify fractions; use common multiples to express fractions in the same denomination ▪ Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction ▪ Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts ▪ Compare and order fractions, including fractions >1 ▪ Solve problems involving the calculation of percentages and the use of percentages for comparison **Measurement – Area, Perimeter and Volume** **Steps** ▪ Shapes – same area ▪ Area and perimeter ▪ Area of a triangle – counting squares ▪ Area of a right angled triangle ▪ Area of any triangle ▪ Area of a parallelogram	

	NC objectives ▪ Solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate • Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measureto a larger unit, and vice versa, using decimal notation to up to 3 decimal places	▪ Volume – counting cubes ▪ Volume of a cuboid **NC objectives** ▪ Recognise that shapes with the same areas can have different perimeters and vice versa ▪ Recognise when it is possible to use formulae for area and volume of shapes ▪ Calculate the area of parallelograms and triangles ▪ Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm3) and cubic metres (m3), and extending to other units **Data – Statistics** **Steps** ▪ Line graphs ▪ Dual bar charts ▪ Read and interpret pie charts ▪ Pie charts with percentages ▪ Draw pie charts ▪ The mean **NC objectives** • Calculate and interpret the mean as an average ▪ Interpret and construct pie charts and line graphs and use these to solve problems ▪ Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs (Year 4)	

English	**"War Game" by Michael Foreman** **WW1 poetry**	**"Goodnight Mister Tom" by Michelle Magorian**	**"Broken Glass" by Sally Grindley** **Poetry: "Blessing" by Imtiaz Dharker**	**"Millions" by Frank Cottrell Boyce**	**William Shakespeare: Macbeth or Romeo and Juliet**

	Historical fiction and poetry linked to history work on WW1.	Historical fiction linked to history work on WW2.	Adventure story and poetry linked to geography work on India.	Contemporary, humorous fiction.	Focus on speaking and listening skills and drama.

- **Reading skills**: Focusing on the key skills of word meaning, retrieve and record, inference, summarising, predicting, making comparisons and author's choice of vocabulary.
- **Writing skills**: Write for a range of audiences and purpose, select the appropriate form; plan and develop their ideas through discussion and writing; develop characters, settings and plot in their story writing; develop sentences using increasingly rich vocabulary; organise their writing by using paragraphs; link their ideas in a variety of ways; use organisational devises such as headings, bullet points and underlining; edit their writing for effectiveness, vocabulary, punctuation, spelling, tense and grammar.
- **Grammar**: Including formal and informal English, passive verbs, expanded noun phrases, hyphens, semi-colons, colons, dashes and bullet points. Be able to use grammatical terminology accurately.
- **Spelling**: Including prefixes and suffixes, homophones, silent letters and words from the Year 5&6 statutory spelling list. Using a dictionary to check spellings and a thesaurus to improve vocabulary choices.
- **Handwriting:** use joined handwriting legibly and fluently with increasing speed.

Science	**Classifying organisms:** (Biology) • Classifying organisms. • Find out about Carl Linnaeus and his classification system. • Explore how micro-organisms can be classified.	**Healthy Bodies:** (Biology) • Investigate blood and its properties. • Explore the structure of the heart and lungs. • Research the effects of exercise, alcohol and drugs on our bodies.	**Evolution and Inheritance:** (Biology) • Explore inherited traits. • Understand the link between adaption and evolution. • Research historical scientific hypothesis. • Consider factors affecting evolution. • Human evolution.	**Seeing Light:** (Physics) • Investigate how shadows can be changed. • Identify key parts of the eye and how we see. • Investigate reflection and refraction. • Explore white light.	**Changing Circuits:** (Physics) • Establish relationship between increase/decrease in batteries and bulbs. • Recognise and use conventional symbols for circuits.	**Scientist focus:** (linked to RE) • To research the life and work of a chosen modern day scientist. • Present research to the class.
RE	**What do we mean by the term human rights?** • John Bunyan • The UN Declaration of Human Rights • Martin Luther King	**What does "Christian Love" require of a person?** • Exploring ideas about love • The Good Samaritan • The Lord's Prayer	**What do Hindus believe?** • Moksha, Dharma, Artha and Karma • One God: Brahman in many forms • Pilgrimage to the River Ganges	**How do we remember those we have loved?** • Different faiths' attitudes to death • The importance of memories • The Easter Story	**What can the Bible teach us?** • The structure of the Bible • Stories, proverbs and psalms • The gospels	**How can one person make a difference in the world?** • Mahatma Gandhi • Children's own choice of significant figures who have made a difference in the world.

	• Rosa Parks		• Worship and prayer			
Art	**Symbols (WW1 & WW2)** • Drawing and collage **Study of Artists:** • Salvador Dali, Clive Branson, Paul Nash In this unit, the children will use a range of techniques to create a collage. They will draw on previous learning of collages to know the techniques to use. The children will begin by learning about symbolism and how it can be depicted in Art. They will learn about artists such as Salvador Dali, Clive Branson and in particular Paul Nash where they will focus on symbols of WW1 and WW2. They will create a symbol based on WW1 and WW2 which will then be used as a focal point in their final collage piece.		**India** • Drawing and printing **Study of Artists:** • Indian patterns & Mehndi hands In this unit, the children will build on their printing skills from Year 3. They will create an Indian Mehndi pattern inspired relief print. The children will study the shapes, patterns and colours of tradition Mehndi patterns and use the techniques of printing to create their own. Once their work is completed, they will evaluate how successful they have been and think about what they would do differently next time.		**Portraits** • Drawing and digital art **Study of Artists:** • David Hockney, Pablo Picasso, Rembrant, Anna Katrina Zinkeisen and Vincent Van Gogh In this unit, children will build on their portrait skills from Year 2. They will explore the work of artists who have painted self – portraits such as David Hockney, Pablo Picasso, Rembrandt, Anna Katrina Zinkeisen and Vincent Van Gogh. They will observe different techniques that each artist has used, in particular the 'Impasto' technique. They will take a photograph of their face but only print one half. For their final piece, they will draw the other half using the 'Impasto' technique.	
Computing	**Coding:** • Designing and making games including features such as timers and scoring. • De-bugging when problems arise.	**Online Safety:** • Considering online risks – SMART rules • Online behaviour • Balancing screen time with other interests **Spreadsheets:** • Exploring Probability • Creating a computational model • Use a Spreadsheet to Plan Pocket Money Spending	**Text Adventures:** • Planning and making a story adventure game	**Networks:** • The World Wide Web and the Internet • Tim Berners-Lee **Understanding Binary:** • What is binary? • Counting in binary • Converting from decimal to binary • Using 0 and 1 values in a game	**Quizzing:** • Creating different quizzes/games using a variety of programs	**Blogging:** • What is a blog? • Planning and writing a blog • Sharing posts and commenting on others' blogs
D&T	**Ferris Wheel:** • Mechanisms: Gears • Computer Control		**Vegetable Curry:** • Cooking and nutrition		**Cushions:** • Textiles • Purpose: To design and make a cushion cover using a variety of different techniques such as	

	• Purpose: To design and make a rotating K'Nex Ferris Wheel that uses computer control.		• To explore the different spices used in traditional Indian curries. To design and make their own simple vegetable curry.		tie-dyeing, use of fabric pens/paints and sewing to join fabrics and for decoration.	
French	**Family and Friends** • Join in traditional songs and rhymes. • Recognise rhyming sounds. • Use 1st person possessive adjectives confidently and recognise that third person is different. • Introduce family members. • Say what sort of home they live in and name items inside. • Give a simple opinion about a named animal or object. • Construct a simple sentence about a variety of topics.		**School Life** • Listen and respond to topic vocabulary. • Answer questions orally using the topic vocabulary. • Answer questions in writing using the topic vocabulary. • Take part in a conversation with a partner and show it to an audience.		**Time Travelling** • Recognise number words in spoken sentences. • Say numbers larger than 100. • Match the subject and verb for high-frequency Verbs. • Recognise when someone is saying a date.	
Geography	*Geography linked to History – countries involved in WW1 and WW2.*		**India** • Use of maps and atlases. • Equator, tropics, hemispheres and time zones • Physical geography, including climate, biomes and the water cycle • Human geography, including land use, trade and the distribution of natural resources		**Geography linked to work on history - Hampton-in-Arden through the ages** • Location of counties and cities of UK, land use and patterns and how these have changed over time. • Use of maps, atlases and digital mapping.	
History	**Hampton-in-Arden and the surrounding area in WW1 and WW2:** • Thematic study in British History to extend chronological knowledge beyond 1066. • Local History study		*History link to Geography – India as part of the British empire and now the Commonwealth.*		**Hampton-in-Arden through the ages:** • Thematic study in British History to extend chronological knowledge beyond 1066. • Local History study.	
Music	**<u>Dynamics, pitch and texture</u>** **Focus:** Appraising the work of Mendelssohn and further developing the skills of improvisation and composition. **Composers/Artists/ Music:** Mendelssohn's *Fingal's Cave.*	**<u>Songs of World War 2</u>** **Focus:** World War 2 Songs. **Composers/Artists/ Music:** Pack Up Your Troubles in Your Old Kit Bag, We'll Meet Again, White Cliffs of Dover, Do Re Mi from *The Sound of Music.*	**<u>Film Music</u>** **Focus:** Exploring and identifying the characteristics of film music. **Composers/Artists/ Music:** James Bond Theme, Wallace and Gromit *'A Close Shave'*, Elgar's *Pomp and Circumstance.*	**<u>Theme and Variations: Pop Art</u>** **Focus:** Children explore the musical concept of theme and variations and discover how rhythms can 'translate' onto different instruments. **Composers/Artists/ Music:** Benjamin Britten *The*	**<u>Baroque</u>** **Focus:** Children define features of Baroque music (e.g. canon, fugue, recitative), play parts of a canon, compose a ground bass ostinato and notate using staff notation, name some well-known composers. **Composers/Artists/ Music:**	**<u>Composing and Performing a Leavers' Song</u>** **Focus:** Evaluating a song based on its lyrics, tempo, melody and arrangement. **Composers/Artists/ Music:** Take That *Never Forget,* Toy Story *You Got A Friend In Me,* The Beatles *With A Little*

				Young Person's Guide to the Orchestra, Henry Purcell.	*Lascia chio pianga* by Handel, *Prelude from L'Orfeo* by Monteverdi, *'Memories'* by Maroon 5, *'All together now'* by The Farm, *'Cryin'* by Aerosmith, *'Canon in D'* by Johann Pachelbel, *Dido's Lament* by Henry Purcell, *Music for a While* by Henry Purcell, *Toccata and Fugue in D Minor* by J S Bach, *Third Mvt from Brandenburg Concerto No. 2* by J S Bach, *Symphony No. 41: 4th Mvt* by Mozart, *Funky Fugue* by Kay Charlton, *The Arrival of the Queen of Sheba (Solomon)* by Handel, *Halleluia Chorus* from *Messiah* by Handel	*Help From My Friends*, S Club 7 *Reach.*

<table>
<tr><td rowspan="3">PE</td><td colspan="2">Gymnastics:
Focus: Vaulting. Large apparatus. Complex sequences within groups.</td><td>Bollywood Dance:
Focus: Explore dance form different cultures. Use space, rhythm & expression. Work collaboratively to include more complex compositional ideas.</td><td>Rounders:
Focus: Basic rules, Hitting for direction.</td><td>Swimming: (TBC)
Skill Focus: Safe self-rescue
Competition: Swim awards</td></tr>
<tr><td>Football:
Focus: Close control ball skills, tackling & goal side marking.</td><td>Netball:
Focus: Dodging, pivoting & finding space. High 5 rules.</td><td>Tag Rugby:
Focus: Develop running & accurate passing. Pop pass, Magic diamond attack, using attacking & defending tactics.
Competition: Team games. Spirit scoring. SSP Tournament</td><td>Tennis:
Focus: The lob, tennis scoring & tactics</td><td>Athletics:
Focus: Relay, discus & long jump.
Competition: Spirit scoring, PB & Sports Day</td></tr>
<tr><td colspan="5">The School Games Values of honesty, determination, teamwork, self-belief, passion and respect underpin our curriculum offering. Within each unit of work the children will develop their understanding of a key value and use the values to participate in positive competitive experiences against themselves or others.</td></tr>
<tr><td>PSHE (Jigsaw)</td><td>Being Me in My World:
Identifying goals for the year
Global citizenship
Children's universal rights
Feeling welcome and valued
Choices, consequences and rewards
Group dynamics
Democracy, having a voice
Anti-social behaviour
Role-modelling</td><td>Celebrating Difference:
Perceptions of normality
Understanding disability
Power struggles
Understanding bullying
Inclusion/exclusion
Differences as conflict and difference as celebration
Empathy</td><td>Dreams and Goals:
Personal learning goals, in and out of school
Success criteria
Emotions in success
Making a difference in the world
Motivation
Recognising achievements
Compliments</td><td>Healthy Me:
Taking personal responsibility
How substances affect the body
Exploitation, including 'county lines' and gang culture
Emotional and mental health
Managing stress</td><td>Relationships:
Mental health
Identifying mental health worries and sources of support
Love and loss
Managing feelings
Power and control
Assertiveness
Technology safety and responsibility with technology</td><td>Changes:
Self-image
Body image
Puberty and feelings
Conception to birth
Reflections about change
Physical attraction
Respect and consent
Boyfriends/girlfriends
Sharing images
Transition</td></tr>
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Y6 Curriculum Enrichment	• Visit to Coventry Cathedral (History) • Theatre visit • Playground Leadership Training (PSHE/PE)	• Church visit (RE) • Visit to National Memorial Arboretum (RE) • Bollywood Dance Workshop (PE)	• Tag Rugby Coaching (PE) • Hampton Tennis Club (PE) • Year 6 Leavers' Services: Hampton and Birmingham Diocese • Condover Hall (PSHE/PE) • Secondary Transition Programme
Whole School Events	• School Induction Programme • Anti-Bullying Week • Book Fair • Parent Consultations & SEND Reviews • Harvest Festival • Remembrance Day/Poppy Appeal • Christmas Church Service • Christmas Carol Service • Christmas Chronicle Competition • School Council Elections • Online Safety Group Elections • Eco-Group Elections	• Online Safety Day • Health Week • British Science Week • Easter Church Service • Parent Consultations & SEND Reviews • World Book Day • Red Nose Day • Speak Out, Stay Safe (NSPCC) • Easter Church Service • Marie Curie Daffodil Appeal	• Sports Day • Open Evening • Y6 Church Leavers' Service and Diocesan Leavers' Service • Summer Reading Challenge • Transition