



# Welcome to Year 6

2020 / 2021

*Dear Parents*

*We are delighted to have the children back into school after such a long period of closure. School is certainly very different as we do our best to operate in such a way that keeps all members of the school community safe and, although we may not be quite as accessible as in the past, we are still here if you have any queries or concerns. Please contact us via the school office if you need to discuss anything.*

*We hope you find the following information useful.*

*Mrs Simms and Mrs Swanson*

### Teaching and Support Staff

Mrs Simms will teach mathematics and English. Mrs Simms will also teach Computing; this work will generally be integrated into maths sessions.

Mrs Swanson will teach Science, PE, Music and Personal, social, health and economic education (PSHE).

Mrs Ludford will teach RE.

Miss Johnston will teach French, Geography and History.

Mrs Sawers will provide learning support in English, Maths and Science lessons.

Mr Steele will support Mrs Swanson for Wednesday afternoon Games lessons.

### Homework

Due to the current situation, we are not sending any paper-based tasks home. All homework can be accessed via Google Classroom and will go live at 8am each Friday morning. The children have an exercise book in which to complete any tasks – a photograph of completed work can then be uploaded to Google Classroom.

All English and Maths homework will be set on a Friday to be completed by the following Friday at the latest.

Spellings will be set on a Friday and tested the following Friday.

Children should read at least three times a week, one of these sessions should involve reading to an adult. All reading at the present time will be completed on line using Bug Club. ([www.activelearnprimary.co.uk](http://www.activelearnprimary.co.uk) )

### P.E in Key Stage 2

Unfortunately, due to the pandemic, P.E in school has been very restricted. However, P.E at Uffington is seen as a very important part for the health and well-being for the children. Consequently, a varied programme of adapted sports has been planned whilst we still have good weather. The advice we have been given at the moment is that children should participate in non-contact sports and to avoid the sharing of sports equipment where ever possible. If it has to be shared, then equipment has to be sanitised or quarantined for up to 72 hours. Children in Y5/6 have been bringing their own tennis racquet and ball whilst Y3/4 have been bringing a tennis ball. This has worked extremely well and it really helps with the smooth running of a session. So please continue to do this for at least this term.

P.E for children in Key Stage 2 is on Wednesday and Friday. Children need to wear their P.E kit to school on these days. As the weather begins to change, children will need to wear either school shoes or a spare pair of trainers to school and bring their P.E trainers in a bag so that dirty footwear is not worn inside

the school. All jewellery including watches and Fitbits have to be removed for P.E lessons. If a child is unfit to participate in P.E, please inform Mrs Swanson. Children who are not participating in the P.E lesson will still have to be outside with the class.

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### Assessment

Assessments will be based upon the National Curriculum. Both formal and informal assessments will take place throughout the year and you will be able to discuss your child's attainment and progress at Parents' Evenings.

### Statutory Assessment

All children in Year 6 will be assessed during the week commencing 10<sup>th</sup> May 2021. They will sit papers in Mathematics, Reading and Grammar, Punctuation and Spelling. Papers are externally marked with results published in July; these will be included as part of the individual report. English Writing will be assessed by Mrs Simms across a series of pieces of work with judgements externally moderated to ensure that they are correct.

### Parents' Evenings

Mrs Simms and Mrs Swanson will make telephone calls to discuss settling in and progress just before half term in October. There will be another 'Parents' Evening' February although we do not yet know whether this will be a face to face meeting. We are, of course, available to discuss your child's needs at any time throughout the school year– please contact Mrs Simms to make a telephone appointment. Sadly, we will not be able to hold our customary Open Afternoons for the time being.

### Transfer to Secondary School

We would encourage you to investigate as many secondary schools as you can; most schools are offering virtual presentations and tours this year. Eleven Plus results are published prior to the end of October deadline for submission of secondary preference forms. If you would like any advice regarding secondary schools, we are happy to discuss options with you – please make an appointment with Mrs Simms.

### Holidays during term time

Please remember that Mrs Simms is unable to authorise absence for family holidays during term time. The school's absence policy can be found on the school website.

### Y5/6 Timetable 2020 / 2021

Monday	REGISTRATION AND PRAYER	<i>EHWB task</i>  English <i>Mrs Simms</i> <i>Mrs Sawers</i>	Maths <i>Mrs Simms</i> <i>Mrs Sawers</i>	BREAK	Guided Reading / Class novel <i>Mrs Simms</i> <i>Mrs Sawers</i>	LUNCH	Science / PE <i>Mrs Swanson</i> <i>Mrs Sawers</i>	COLLECTIVE WORSHIP	Well-being
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Tuesday		<i>Fluency Fitness (maths)</i>  English <i>Mrs Simms</i> <i>Mrs Sawers</i>	Maths <i>Mrs Simms</i> <i>Mrs Sawers</i>		English GAPS <i>Mrs Simms</i> <i>Mrs Sawers</i> <i>(Guided Reading. group)</i>		Art / DT / Computing <i>Mrs Simms</i> <i>Mrs Sawers</i>		Handwriting
Wednesday	COLLECTIVE WORSHIP	Science <i>Mrs Swanson</i> <i>Mrs Sawers</i>	Guided Reading <i>Miss Johnston</i> <i>Mrs Sawers</i>		Arithmetic / Maths / Phonics Booster <i>Mrs Swanson</i> <i>Mrs Sawers</i>		RE <i>Mrs Ludford</i>	PE <i>Mrs Swanson / Mr Steele</i>	
Thursday	REGISTRATION AND MORNING	<i>Handwriting</i> English <i>Mrs Simms</i> <i>Mrs Sawers</i>	Maths <i>Mrs Simms</i> <i>Mrs Sawers</i>		Maths <i>Mrs Simms</i> <i>Mrs Sawers</i>		Geography / History <i>Miss Johnston</i>	WORSHIP	Well-being
Friday		French <i>Miss Johnston</i>	PSHEE / Music / Reading <i>(flexible)</i> <i>Mrs Swanson</i>		PE <i>Mrs Swanson</i>		MERITS ON ZOOM	Spellings <i>Miss Johnston</i>	PSHEE / Music / Reading <i>(flexible)</i> <i>Mrs Swanson</i>

Year 5 / 6 CURRICULUM FRAMEWORK 2020 / 2021

	A GREEK ODYSSEY	ULTIMATE UNIVERSE	EXTREME EARTH
C	<u>History – Ancient Greece</u>  <u>Science - Animals, including humans</u>	<u>Science</u>  Earth and Space  Electrical systems	<u>Science</u>  Habitats

<p>The heart and circulation</p> <p>Transportation of nutrients</p> <p>Lifecycle / Puberty</p> <p>Drugs</p> <p><u>Design Technology – Levers, Pulleys and Gears</u></p> <p><u>RE</u></p> <p>Salvation – What difference does the resurrection make to Christians?</p> <p>Incarnation – Was Jesus the Messiah?</p> <p><u>PSHEE – Health and Well-being</u></p>	<p><u>Art – Sculpture – Working in Clay</u></p> <p><u>Computing – Coding</u></p> <p><u>RE – Being Human – Hinduism / Islam</u></p> <p><u>PSHEE – Living in the Wider World</u></p>	<p><u>Geography – Volcanoes (Pompeii) and Earthquakes</u></p> <p><u>RE – Expressing Belief through the Arts</u></p> <p><u>Art – Drawing and Painting Inspired by Creation</u></p> <p><u>Computing – Exploring Spreadsheets</u></p> <p><u>PSHEE – Relationships</u></p> <p>Growing Up / Puberty</p>
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### English in Year 6

Your child will build upon work from Year 5 following the national curriculum. Lessons will focus upon develop skills of reading, writing, spelling, grammar and punctuation. Detailed information about curriculum content can be found below:

ENGLISH						
Spoken Word	Word Reading	Comprehension	Writing – transcription	Writing – Handwriting	Writing – Composition	Writing – Grammar, Vocabulary and Punctuation

<p>Pupils should be taught to:</p> <p>listen and respond appropriately to adults and their peers</p> <p>ask relevant questions to extend their understanding and knowledge</p> <p>use relevant strategies to build their vocabulary</p> <p>articulate and justify answers, arguments and opinions</p>	<p>Pupils should be taught to:</p> <p>apply their growing knowledge of root words, prefixes and suffixes (morphology and etymology both to read aloud and to understand the meaning of new words that they meet.</p>	<p>Pupils should be taught to:</p> <p>maintain positive attitudes to reading and understanding of what they read by:</p> <p>continuing to read and discuss an increasingly wide range of fiction, poetry, plays, non-fiction and reference books or textbooks</p> <p>reading books that are structured in different ways and reading for a range of purposes</p> <p>increasing their 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</p> <p>recommending books that they have read to their peers, giving reasons for their choices</p>	<p><b>Spelling</b></p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>use further prefixes and suffixes and understand the guidance for adding them</li> <li>spell some words with 'silent' letters [for example, knight, psalm, solemn]</li> <li>continue to distinguish between homophones and other words which are often confused</li> <li>use knowledge of morphology and etymology in spelling and understand that the spelling of some words needs to be learnt specifically, as listed in English Appendix 1</li> <li>use dictionaries to check the spelling and meaning of words</li> <li>use the first three or four letters of a word to check spelling, meaning or both of these in a dictionary</li> </ul>	<p>Pupils should be taught to:</p> <p>write legibly, fluently and with increasing speed by:</p> <p>choosing which shape of a letter to use when given choices and deciding whether or not to join specific little</p> <p>choosing the writing implement that is best suited for a task.</p>	<p>Pupils should be taught to:</p> <p>plan their writing by:</p> <p>identifying the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own</p> <p>noting and developing initial ideas, drawing on reading and research where necessary</p> <p>in writing narratives, considering how authors have developed characters and settings in what pupils have read, listened to or seen performed</p> <p>draft and write by:</p> <p>selecting appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning</p> <p>in narratives, describing settings, characters and atmosphere and integrating dialogue to convey character and advance the action</p>	<p>Pupils should be taught to:</p> <p>develop their understanding of concepts by:</p> <p>recognising vocabulary and structures that are appropriate for formal speech and writing, including subjunctive forms</p> <p>using passive verbs to affect the presentation of information in a sentence</p> <p>using the perfect form of verbs to mark relationships of time and cause</p> <p>using expanded noun phrases to convey complicated information concisely</p> <p>using modal verbs or adverbs to indicate degrees of possibility</p> <p>using relative clauses beginning with who, which, where, when, whose, that or with an implied (i.e. omitted) relative pronoun</p> <p>learning the grammar for years 5 and 6</p>
Spoken Word	Word Reading	Comprehension	Writing – transcription	Writing – Handwriting	Writing – Composition	Writing – Grammar, Vocabulary and Punctuation



<p>give well-structured descriptions, explanations and narratives for different purposes, including for expressing feelings</p> <p>maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments</p> <p>use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas</p>		<p>identifying and discussing themes and conventions in and across a wide range of writing</p> <p>making comparisons within and across books</p> <p>learning a wider range of poetry by heart</p> <p>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</p> <p>understand what they read by:</p> <p>checking that the book makes sense to them, discussing their understanding and exploring the meaning of words in context</p> <p>asking questions to improve their understanding</p> <p>drawing inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence</p> <p>predicting what might happen from details stated and implied</p> <p>summarising the main ideas drawn from more than one paragraph, identifying key details that support the main ideas.</p>	<p>use a thesaurus.</p>		<p>précising longer passages using a wide range of devices to build cohesion within and across paragraphs</p> <p>using further organisational and presentational devices to structure text and to guide the reader [for example, headings, bullet points, underlining]</p> <p>evaluate and edit by:</p> <p>assessing the effectiveness of their own and others' writing</p> <p>proposing changes to vocabulary, grammar and punctuation to enhance effects and clarify meaning</p> <p>ensuring the consistent and correct use of tense throughout a piece of writing</p> <p>ensuring correct subject and verb agreement when using singular and plural, distinguishing between the language of speech and writing and choosing the appropriate register</p> <p>proof-read for spelling and punctuation errors</p> <p>perform their own compositions, using appropriate intonation, volume, and movement so that meaning is clear.</p>	<p>indicate grammatical and other features by:</p> <p>using commas to clarify meaning or avoid ambiguity in writing</p> <p>using hyphens to avoid ambiguity</p> <p>using brackets, dashes or commas to indicate parenthesis</p> <p>using semi-colons, colons or dashes to mark boundaries between independent clauses</p> <p>using a colon to introduce a list</p> <p>punctuating bullet points consistently</p> <p>use and understand grammatical terminology accurately and appropriately in discussing their writing and reading.</p>
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Spoken Word	Word Reading	Comprehension	Writing – transcription	Writing – Handwriting	Writing – Composition	Writing – Grammar, Vocabulary and Punctuation
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<p>speak audibly and fluently with an increasing command of Standard English</p> <p>participate in discussions, presentations, performances, role play, improvisations and debates</p> <p>gain, maintain and monitor the interest of the listener(s)</p> <p>consider and evaluate different viewpoints, attending to and building on the contributions of others</p> <p>select and use appropriate registers for effective communication</p>		<p>identifying how language, structure and presentation contribute to meaning</p> <p>discuss and evaluate how authors use language, including figurative language, considering the impact on the reader</p> <p>distinguish between statements of fact and opinion</p> <p>retrieve, record and present information from non-fiction</p> <p>participate in discussions about books that are read to them and those they can read for themselves, building on their own and others' ideas and challenging views courteously</p> <p>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</p> <p>provide reasoned justifications for their views.</p>				
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*Year 6: Detail of content to be introduced (statutory requirement)*

<b>Word</b>	<p>The difference between vocabulary typical of informal speech and vocabulary appropriate for formal speech and writing [for example, <i>find out – discover; ask for – request; go in – enter</i>]</p> <p>How words are related by meaning as synonyms and antonyms [for example, <i>big, large, little</i>].</p>
<b>Sentence</b>	<p>Use of the <b>passive</b> to affect the presentation of information in a <b>sentence</b> [for example, <i>I broke the window in the greenhouse</i> versus <i>The window in the greenhouse was broken (by me)</i>].</p> <p>The difference between structures typical of informal speech and structures appropriate for formal speech and writing [for example, the use of question tags: <i>He’s your friend, isn’t he?</i>, or the use of <b>subjunctive</b> forms such as <i>If I <u>were</u></i> or <i><u>Were they</u> to come</i> in some very formal writing and speech]</p>
<b>Text</b>	<p>Linking ideas across paragraphs using a wider range of <b>cohesive devices</b>: repetition of a <b>word</b> or phrase, grammatical connections [for example, the use of <b>adverbials</b> such as <i>on the other hand, in contrast, or as a consequence</i>], and <b>ellipsis</b></p> <p>Layout devices [for example, headings, sub-headings, columns, bullets, or tables, to structure text]</p>
<b>Punctuation</b>	<p>Use of the semi-colon, colon and dash to mark the boundary between independent <b>clauses</b> [for example, <i>It’s raining; I’m fed up</i>]</p> <p>Use of the colon to introduce a list and use of semi-colons within lists</p> <p><b>Punctuation</b> of bullet points to list information</p> <p>How hyphens can be used to avoid ambiguity [for example, <i>man eating shark</i> versus <i>man-eating shark</i>, or <i>recover</i> versus <i>re-cover</i>]</p>
<b>Terminology for pupils</b>	<p>subject, object</p> <p>active, passive</p> <p>synonym, antonym</p> <p>ellipsis, hyphen, colon, semi-colon, bullet points</p>

Statutory requirements	Rules and guidance (non-statutory)	Example words (non-statutory)
Endings which sound like /ʃəs/ spelt -cious or -tious	<p>Not many common words end like this.</p> <p>If the root word ends in <b>-ce</b>, the /ʃ/ sound is usually spelt as <b>c</b> – e.g. <i>vice</i> – <i>vicious</i>, <i>grace</i> – <i>gracious</i>, <i>space</i> – <i>spacious</i>, <i>malice</i> – <i>malicious</i>.</p> <p><b>Exception:</b> <i>anxious</i>.</p>	<p>vicious, precious, conscious, delicious, malicious, suspicious</p> <p>ambitious, cautious, fictitious, infectious, nutritious</p>
Endings which sound like /ʃəl/	<p><b>-cial</b> is common after a vowel letter and <b>-tial</b> after a consonant letter, but there are some exceptions.</p> <p><b>Exceptions:</b> initial, financial, commercial, provincial (the spelling of the last three is clearly related to <i>finance</i>, <i>commerce</i> and <i>province</i>).</p>	<p>official, special, artificial, partial, confidential, essential</p>
Words ending in –ant, –ance/–ancy, –ent, –ence/–ency	<p>Use <b>-ant</b> and <b>-ance/–ancy</b> if there is a related word with a /æ/ or /eɪ/ sound in the right position; <b>-ation</b> endings are often a clue.</p> <p>Use <b>-ent</b> and <b>-ence/–ency</b> after soft <b>c</b> (/s/ sound), soft <b>g</b> (/dʒ/ sound) and <b>qu</b>, or if there is a related word with a clear /ɛ/ sound in the right position.</p> <p>There are many words, however, where the above guidance does not help. These words just have to be learnt.</p>	<p>observant, observance, (observ<u>a</u>tion), expectant (expect<u>a</u>tion), hesitant, hesitancy (hesit<u>a</u>tion), tolerant, tolerance (toler<u>a</u>tion), substance (subst<u>a</u>ntial)</p> <p>innocent, innocence, decent, decency, frequent, frequency, confident, confidence (confid<u>e</u>ntial)</p> <p>assistant, assistance, obedient, obedie<u>n</u>ce, independ<u>e</u>nt, independ<u>e</u>nce</p>
<p>Words ending in –able and –ible</p> <p>Words ending in –ably and –ibly</p>	<p>The <b>-able/–ably</b> endings are far more common than the <b>-ible/–ibly</b> endings.</p> <p>As with <b>-ant</b> and <b>-ance/–ancy</b>, the <b>-able</b> ending is used if there is a related word ending in <b>-ation</b>.</p>	<p>adorable/adorably (adoration), applicable/applicably (application), considerable/considerably (consideration), tolerable/tolerably (toleration)</p> <p>changeable, noticeable, forcible, legible</p>

	<p>If the <b>–able</b> ending is added to a word ending in <b>–ce</b> or <b>–ge</b>, the <b>e</b> after the <b>c</b> or <b>g</b> must be kept as those letters would otherwise have their ‘hard’ sounds (as in <i>cap</i> and <i>gap</i>) before the <b>a</b> of the <b>–able</b> ending.</p> <p>The <b>–able</b> ending is usually but not always used if a complete root word can be heard before it, even if there is no related word ending in <b>–ation</b>. The first five examples opposite are obvious; in <i>reliable</i>, the complete word <i>rely</i> is heard, but the <b>y</b> changes to <b>i</b> in accordance with the rule.</p> <p>The <b>–ible</b> ending is common if a complete root word can’t be heard before it but it also sometimes occurs when a complete word <i>can</i> be heard (e.g. <i>sensible</i>).</p>	<p>dependable, comfortable, understandable, reasonable, enjoyable, reliable</p> <p>possible/possibly, horrible/horribly, terrible/terribly, visible/visibly, incredible/incredibly, sensible/sensibly</p>
Adding suffixes beginning with vowel letters to words ending in –fer	<p>The <b>r</b> is doubled if the <b>–fer</b> is still stressed when the ending is added.</p> <p>The <b>r</b> is not doubled if the <b>–fer</b> is no longer stressed.</p>	<p>referring, referred, referral, preferring, preferred, transferring, transferred</p> <p>reference, referee, preference, transference</p>
Use of the hyphen	Hyphens can be used to join a prefix to a root word, especially if the prefix ends in a vowel letter and the root word also begins with one.	co-ordinate, re-enter, co-operate, co-own
Words with the /i:/ sound spelt ei after c	<p>The ‘i before e except after c’ rule applies to words where the sound spelt by <b>ei</b> is /i:/.</p> <p><b>Exceptions:</b> <i>protein, caffeine, seize</i> (and <i>either</i> and <i>neither</i> if pronounced with an initial /i:/ sound).</p>	deceive, conceive, receive, perceive, ceiling
Words containing the letter-string ough	<b>ough</b> is one of the trickiest spellings in English – it can be used to spell a number of different sounds.	<p>ought, bought, thought, nought, brought, fought</p> <p>rough, tough, enough</p> <p>cough</p> <p>though, although, dough</p>

		through thorough, borough      plough, bough
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Words with 'silent' letters (i.e. letters whose presence cannot be predicted from the pronunciation of the word)	Some letters which are no longer sounded used to be sounded hundreds of years ago: e.g. in <i>knight</i> , there was a /k/ sound before the /n/, and the <b>gh</b> used to represent the sound that 'ch' now represents in the Scottish word <i>loch</i> .	doubt, island, lamb, solemn, thistle, knight
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The principal focus of mathematics teaching in upper key stage 2 is to ensure that pupils extend their understanding of the number system and place value to include larger integers. This should develop the connections that pupils make between multiplication and division with fractions, decimals, percentages and ratio.

At this stage, pupils should develop their ability to solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems demanding efficient written and mental methods of calculation. With this foundation in arithmetic, pupils are introduced to the language of algebra as a means for solving a variety of problems. Teaching in geometry and measures should consolidate and extend knowledge developed in number. Teaching should also ensure that pupils classify shapes with increasingly complex geometric properties and that they learn the vocabulary they need to describe them.

By the end of year 6, pupils should be fluent in written methods for all four operations, including long multiplication and division, and in working with fractions, decimals and percentages.

Pupils should read, spell and pronounce mathematical vocabulary correctly.

### Number and Place Value

Pupils will be taught to:

- 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

### Addition, Subtraction, Multiplication and Division

Pupils will be taught to:

- multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication
- divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context
- divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context
- perform mental calculations, including with mixed operations and large numbers
- identify common factors, common multiples and prime numbers
- use their knowledge of the order of operations to carry out calculations involving the four operations
- 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.

### Number – Fractions (including decimals and percentages)

Pupils will be taught to:

- 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
- multiply simple pairs of proper fractions, writing the answer in its simplest form [for example,  $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$ ]
- divide proper fractions by whole numbers [for example,  $\frac{1}{3} \div 2 = \frac{1}{6}$ ]
- associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example,  $\frac{3}{8}$ ]
- identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places
- multiply one-digit numbers with up to two decimal places by whole numbers
- use written division methods in cases where the answer has up to two decimal places
- solve problems which require answers to be rounded to specified degrees of accuracy
- recall and use equivalences between simple fractions, decimals and percentages, including in different contexts
- 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 the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison
- solve problems involving similar shapes where the scale factor is known or can be found
- solve problems involving unequal sharing and grouping using knowledge of fractions and multiples

### Ratio and Proportion

Pupils will be taught to:

- 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 the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison



- solve problems involving similar shapes where the scale factor is known or can be found
- solve problems involving unequal sharing and grouping using knowledge of fractions and multiples

### Algebra

Pupils will be taught to:

- use simple formulae
- generate and describe linear number sequences
- express missing number problems algebraically
- find pairs of numbers that satisfy an equation with two unknowns
- enumerate possibilities of combinations of two variables

### Measurement

Pupils will be taught to:

- solve problems involving the calculation and conversion of units of measure, using decimal notation up to three 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 measure to a larger unit, and vice versa, using decimal notation to up to three decimal places
- convert between miles and kilometres
- 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 and cubic metres, and extending to other units [for example, mm and km ]

### Geometry – Properties of Shapes

Pupils will be taught to:

- draw 2-D shapes using given dimensions and angles
- recognise, describe and build simple 3-D shapes, including making nets

- 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
- recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles

### Geometry – Position and Direction

Pupils will be taught to:

- 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

### Statistics

Pupils will be taught to:

- interpret and construct pie charts and line graphs and use these to solve problems
- calculate and interpret the mean as an average.