

# Rusper Primary School



## NATIONAL EXPECTATIONS FOR THE END OF YEAR 6

### MATHEMATICS

- ✓ 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.
- ✓ 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.
- ✓ 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.
- ✓ 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.
- ✓ 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 ( $\text{cm}^3$ ) and cubic metres ( $\text{m}^3$ ), and extending to other units [for example,  $\text{mm}^3$  and  $\text{km}^3$ ].
- ✓ 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.
- ✓ 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.
- ✓ interpret and construct pie charts and line graphs and use these to solve problems
- ✓ calculate and interpret the mean as an average

### **SPOKEN LANGUAGE**

- ✓ listen and respond appropriately to adults and their peers
- ✓ ask relevant questions to extend their understanding and knowledge
- ✓ use relevant strategies to build their vocabulary
- ✓ articulate and justify answers, arguments and opinions
- ✓ give well-structured descriptions, explanations and narratives for different purposes, including for expressing feelings
- ✓ maintain attention and participate actively in collaborative conversations, staying on topic and initiating and responding to comments
- ✓ use spoken language to develop understanding through speculating, hypothesising, imagining and exploring ideas
- ✓ speak audibly and fluently with an increasing command of Standard English
- ✓ participate in discussions, presentations, performances, role play, improvisations and debates
- ✓ gain, maintain and monitor the interest of the listener(s)
- ✓ consider and evaluate different viewpoints, attending to and building on the contributions of others
- ✓ select and use appropriate registers for effective communication.

### **Y5/6 WORD READING**

- ✓ 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.

### **Y5/6 COMPREHENSION**

- ✓ maintain positive attitudes to reading and understanding of what they read by:

continuing to read and discuss an increasingly wide range of fiction, poetry, plays, non-fiction and reference books or textbooks

reading books that are structured in different ways and reading for a range of purposes

- 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
- recommending books that they have read to their peers, giving reasons for their choices
- identifying and discussing themes and conventions in and across a wide range of writing
- making comparisons within and across books
- learning a wider range of poetry by heart
- preparing poems and plays to read aloud and to perform, showing understanding through intonation, tone and volume so that the meaning is clear to an audience
- ✓ understand what they read by:
  - checking that the book makes sense to them, discussing their understanding and exploring the meaning of words in context
  - asking questions to improve their understanding
  - drawing inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence
  - predicting what might happen from details stated and implied
  - summarising the main ideas drawn from more than one paragraph, identifying key details that support the main ideas
  - identifying how language, structure and presentation contribute to meaning
  - ✓ discuss and evaluate how authors use language, including figurative language, considering the impact on the reader
  - ✓ distinguish between statements of fact and opinion
  - ✓ retrieve, record and present information from non-fiction
  - ✓ 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
  - ✓ explain and discuss their understanding of what they have read, including through formal presentations and debates, maintaining a focus on the topic and using notes where necessary
  - ✓ provide reasoned justifications for their views.

## **Y5/6 SPELLING**

- ✓ use further prefixes and suffixes and understand the guidance for adding them
- ✓ spell some words with 'silent' letters [for example, knight, psalm, solemn]
- ✓ continue to distinguish between homophones and other words which are often confused
- ✓ use knowledge of morphology and etymology in spelling and understand that the spelling of some words needs to be learnt specifically
- ✓ use dictionaries to check the spelling and meaning of words
- ✓ use the first three or four letters of a word to check spelling, meaning or both of these in a dictionary
- ✓ use a thesaurus.

## Y5/6 HANDWRITING AND PRESENTATION

- ✓ write legibly, fluently and with increasing speed by:
  - choosing which shape of a letter to use when given choices and deciding whether or not to join specific letters
  - choosing the writing implement that is best suited for a task.

## Y5/6 WRITING COMPOSITION

- ✓ plan their writing by:
  - identifying the audience for and purpose of the writing, selecting the appropriate form and using other similar writing as models for their own
  - noting and developing initial ideas, drawing on reading and research where necessary
  - in writing narratives, considering how authors have developed characters and settings in what pupils have read, listened to or seen performed
- ✓ draft and write by:
  - selecting appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning
  - in narratives, describing settings, characters and atmosphere and integrating dialogue to convey character and advance the action
  - precising longer passages
  - using a wide range of devices to build cohesion within and across paragraphs
  - using further organisational and presentational devices to structure text and to guide the reader [for example, headings, bullet points, underlining]
- ✓ evaluate and edit by:
  - assessing the effectiveness of their own and others' writing
  - proposing changes to vocabulary, grammar and punctuation to enhance effects and clarify meaning
  - ensuring the consistent and correct use of tense throughout a piece of writing
  - ensuring correct subject and verb agreement when using singular and plural,
  - distinguishing between the language of speech and writing and choosing the appropriate register
- ✓ proof-read for spelling and punctuation errors
- ✓ perform their own compositions, using appropriate intonation, volume, and movement so that meaning is clear.

## Y5/6 VOCABULARY, GRAMMAR & PUNCTUATION

- ✓ develop their understanding of the concepts set out in [English Appendix 2](#) by:
  - recognising vocabulary and structures that are appropriate for formal speech and writing, including subjunctive forms
  - using passive verbs to affect the presentation of information in a sentence
  - using the perfect form of verbs to mark relationships of time and cause
  - using expanded noun phrases to convey complicated information concisely
  - using modal verbs or adverbs to indicate degrees of possibility

- using relative clauses beginning with who, which, where, when, whose, that or with an implied (i.e. omitted) relative pronoun
- learning the grammar for years 5 and 6 in English Appendix 2
- ✓ indicate grammatical and other features by:
    - using commas to clarify meaning or avoid ambiguity in writing
    - using hyphens to avoid ambiguity
    - using brackets, dashes or commas to indicate parenthesis
    - using semi-colons, colons or dashes to mark boundaries between independent clauses
    - using a colon to introduce a list
    - punctuating bullet points consistently
  - ✓ use and understand the grammatical terminology in English Appendix 2 accurately and appropriately in discussing their writing and reading.

## Appendix 2:

Year 6: Detail of content to be introduced (statutory requirement)	
<b>Word</b>	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> ] How words are related by meaning as synonyms and antonyms [for example, <i>big, large, little</i> ].
<b>Sentence</b>	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> ]. 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 were</i> or <i>Were they to come</i> in some very formal writing and speech]
<b>Text</b>	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> Layout devices [for example, headings, sub-headings, columns, bullets, or tables, to structure text]
<b>Punctuation</b>	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> ] Use of the colon to introduce a list and use of semi-colons within lists <b>Punctuation</b> of bullet points to list information How hyphens can be used to avoid ambiguity [for example, <i>man eating shark</i> versus <i>man-eating shark, or recover</i> versus <i>re-cover</i> ]
<b>Terminology for pupils</b>	subject, object active, passive synonym, antonym ellipsis, hyphen, colon, semi-colon, bullet points

