

Warmsworth Primary School

Parent Guide to the
National Curriculum
and expected level of attainment for
English and Mathematics
in

Year 6

(expectations for other Year groups are
available on www.warmsworth.doncaster.sch.uk)

Maths Year 6

Place Value

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 & Division

Multiply multi-digit numbers up to 4 digits by a two-digit whole number.

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 number 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 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.

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.

Fractions (including decimals & %)

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, $1/4 \times 1/2 = 1/8$*].

Divide proper fractions by whole numbers [*for example, $1/3 \div 2 = 1/6$*].

Associate a fraction with division and calculate decimal fraction equivalents [*for example, 0.375*] for a simple fraction [*for example, $3/8$*].

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.

Ratio & Proportion

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

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

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 (cm³) and cubic metres (m³), and extending to other units [for example, mm³ and km³].

Properties of Shapes

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.

Position and Direction

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

Interpret pie charts and line graphs and use these to solve problems.

Construct pie charts and line graphs.

Calculate and interpret the mean as an average.

** Underlined objectives are Key Performance Indicators and have to be achieved to move onto next Year Group.

Reading Years 5 and 6

Apply their growing knowledge of root words, prefixes and suffixes (morphology and etymology), as listed in English Appendix 1, both to read aloud and to understand the meaning of new words that they meet.

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;

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;

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;

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.

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.

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Writing Year 6 – Spelling, Punctuation and Grammar

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, as listed in English Appendix 1 (Years 6).

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.

Develop their understanding of the concepts set out in English Appendix 2 (Year 6) by:

Word

The difference between vocabulary typical of informal speech and vocabulary appropriate for formal speech and writing (*eg, find out - discover; ask for - request; go in - enter*).

How words are related by meaning as synonyms and antonyms (*eg, big, large, little*).

Sentence

Use of the passive to affect the presentation of information in a sentence (*eg, I broke the window in the greenhouse versus The window in the greenhouse was broken [by me]*).

The difference between structures typical of informal speech and structures appropriate for formal speech and writing (such as the use of question tags, *eg, He's your friend, isn't he?*, or the use of subjunctive forms such as *If I were* or *Were they to come* in some very formal writing and speech).

Text

Linking ideas across paragraphs using a wider range of cohesive devices: repetition of a word or phrase, grammatical connections (*eg, the use of adverbials such as on the other hand, in contrast, or as a consequence*), and ellipsis.

Layout devices, such as headings, sub-headings, columns, bullets, or tables, to structure text.

Punctuation

Use of the semi-colon, colon and dash to mark the boundary between independent clauses (*eg, It's raining; I'm fed up*).

Use of the colon to introduce a list.

Punctuation of statements to list information.

How hyphens can be used to avoid ambiguity (*eg, man eating shark versus man-eating shark, or recover versus re-cover*).

Terminology for pupils

Use and understand the grammatical terminology in English Appendix 2 (Year 6) accurately and appropriately when discussing their writing and reading (*subject, object, active, passive, synonym, antonym, ellipsis, hyphen, colon, semi-colon, statements*).

Writing Years 5 and 6 - Transcription and Composition

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.

Plan their writing by:

identifying the audience for and purpose of the writing;

selecting the appropriate form and using other similar writing;

using other similar writing as models for their own compositions;

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;

selecting appropriate grammar and vocabulary, understanding how such choices can change and enhance meaning;

in narratives:

describing settings, characters and atmosphere;

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, statements, underlining].

Evaluate and edit by:

assessing the effectiveness of their own and others' writing;

proposing changes to Vocabulary, Grammar & 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;

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.