

Mathematics:

Place Value:

1. Read, write, order & compare numbers to at least 1 000 000 and determine the value of each digit.
2. Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000. Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000.
3. Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.
4. Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.

Addition and Subtraction:

1. Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).
2. Add and subtract numbers mentally with increasingly large numbers. Use rounding to check answers to calculations and levels of accuracy.
3. Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

Multiplication and Division:

1. Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.
2. Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. Establish whether a number up to 100 is prime and recall prime numbers up to 19.
3. Multiply numbers up to 4 digits by a 1- or 2-digit number using a formal written method. Divide numbers up to 4 digits by a 1-digit number using the formal written method of short division.
4. Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.
5. Recognise and use square numbers and cube numbers, and the notation for squared and cubed.

Fractions:

1. Compare and order fractions whose denominators are all multiples of the same number. Add and subtract fractions with the same denominator and multiples of the same number.
2. Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.
3. Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number.
4. Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.
5. Round decimals with two decimal places to the nearest whole number and to one decimal place. Read and write decimal numbers as fractions (e.g. $0.72 = \frac{72}{100}$).
6. Read, write, order and compare numbers with up to three decimal places. Solve problems involving number up to three decimal places. Write percentages as a fraction. Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{3}{5}$, $\frac{2}{5}$ and those with a denominator of a multiple of 10 or 25.



National Expectations Year 5

Measures:

1. Convert between different units of metric measure (e.g. km & m; cm & m; cm & mm; g & kg; l & ml). Use approx. equivalences between metric and imperial units (e.g. inches, pounds & pints).
2. Measure & calculate the perimeter of composite rectilinear shapes in cm/m. Calculate the area of squares/rectangles using standard units, square cm/m and estimate the area of irregular shapes.
3. Estimate volume (e.g. using 1 cm blocks to build cubes/cuboids) and capacity (e.g. using water).
4. Solve problems involving converting between units of time. Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling.

Geometry:

1. Identify 3D shapes, including cubes and other cuboids, from 2D representations.
2. Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. Draw given angles, and measure them in degrees.
3. Identify: angles at a point and one whole turn (total 360°); angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°); other multiples of 90° .
4. Use the properties of rectangles to deduce related facts and find missing lengths and angles.
5. Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.

Statistics:

1. Solve comparison, sum and difference problems using information presented in a line graph.
2. Complete, read and interpret information in tables, including timetables.

The National Curriculum (2014) sets key milestones and expectations that *most* children are expected to achieve at the end of each age and stage of their development. **By the end of Year 5 most children should be able to:**

Reading:

Word Reading:

1. 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

Comprehension:

Maintain positive attitudes to reading and understanding of what they read by:

1. Continuing to read and discuss an increasingly wide range of fiction, poetry, plays, non-fiction books or textbooks
2. Reading books that are structured in different ways and reading for a range of purposes
3. Increasing familiarity with a wide range of books, including myths, legends & traditional fiction from our literary heritage & books from other cultures & traditions
4. Recommending books that they have read to their peers, giving reasons for their choices
5. Identifying and discussing themes and conventions in and across a wide range of writing
6. Making comparisons within and across books
7. Learning a wider range of poetry by heart
8. Preparing poems and plays to read aloud and to perform, showing understanding through volume so that the meaning is clear to an audience

Understand what they read by:

9. Checking that the book makes sense to them, discussing their understanding and exploring in context
10. Asking questions to improve their understanding
11. Drawing inferences such as inferring characters' feelings, thoughts and motives from the inferences with evidence
12. Predicting what might happen from details stated and implied
13. Summarising the main ideas drawn from more than one paragraph, identifying key detail ideas
14. Identifying how language, structure and presentation contribute to meaning
15. Discuss and evaluate how authors use language, including figurative language, considering reader
16. Distinguish between statements of fact and opinion
17. Retrieve, record and present information from non-fiction
18. Participate in discussions about books that are read to them and those they can read for their own and others' ideas and challenging views courteously
19. Explain and discuss their understanding of what they have read, including through formal debates, maintaining a focus on the topic and using notes where necessary
20. Provide reasoned justifications for their views

Handwriting:

1. 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
2. Write legibly, fluently and with increasing speed by: choosing the writing implement that is best suited for a task

Spelling:

1. Use further prefixes and suffixes and understand the guidance for adding them
2. Spell some words with silent letters
3. Continue to distinguish between homophones and other words which are often confused
4. Use dictionaries to check the spelling and meaning of words (*GH 5:7*) and use a thesaurus
5. Use the first three or four letters of a word to check spelling, meaning or both of these in a dictionary

Writing Composition:

6. Plan their writing by: identifying the audience for & purpose of the writing, selecting the appropriate form & using other similar writing as models
7. Plan their writing by: noting and developing initial ideas drawing on reading and research where necessary
8. Draft and write by: selecting appropriate grammar and vocabulary
9. Draft and write by: using a range of devices to build cohesion within paragraphs
10. Draft and write by: using further organisational and presentational devices to structure text and to guide the reader
11. Evaluate and edit by: assessing the effectiveness of their own writing
12. Evaluate and edit by: proposing changes to vocabulary, grammar and punctuation to enhance effects
13. Evaluate and edit by: ensuring the consistent and correct use of tense throughout a piece of writing
14. Evaluate & edit by: ensuring correct subject-verb agreement when using singular & plural, distinguish between the language of speech & writing (*'up-stage' prompts*)
15. Proof-read for spelling and punctuation errors Read aloud own writing

Vocabulary, Grammar and Punctuation:

1. Use the perfect form of verbs to mark relationships of time and cause
2. Use expanded noun phrases to convey complicated information concisely
3. Use modal verbs or adverbs to indicate degrees of possibility
4. Use relative clauses beginning with who, which, where, when, whose, that or with an implied (i.e. omitted) relative pronoun
5. Use commas to clarify meaning or avoid ambiguity in writing
6. Use brackets, dashes or commas to indicate parenthesis
7. Learn the grammar for St 5. Use & understand the St 5 grammatical terminology

