



Upper KS2: Year Five Objectives

Dear parents

At Appleton Primary School, our curriculum is based on the 2014 National curriculum. This consists of core subjects (English, Science, Maths). Summarised below are the key objectives your child will be expected to achieve in the core subjects. Your child will also learn foundation subjects (Art, D&T, Computing, Geography, History, Music, French, PE, RE and PSHE). Details about what your child will be learning are sent home at the beginning of each term and are also available on our website- www.appletonprimary.org.uk

MATHS

1	Interpret negative numbers in context
2	Read Roman numerals to 1000, including years
3	Recognise and use square and cube numbers, and know the notation
4	Use rounding to check answers and determine accuracy
5	Identify multiples and factors, including finding factor pairs and common factors
6	Use vocabulary: prime numbers, prime factors and composite numbers
7	Know prime numbers up to 19
8	Multiply and divide numbers by 10, 100 or 1000, including decimals
9	Use long multiplication for multiplying numbers of up to 4 digits by one or two digits
10	Divide numbers using standard written short division
11	Convert between mixed numbers and improper fractions
12	Compare and order fractions whose denominators are multiples of the same number
13	Identify, name and write equivalent fractions including tenths and hundredths
14	Add and subtract fractions with denominators that are multiples of the same number
15	Multiply proper fractions and mixed numbers by whole numbers with support
16	Read and write decimal numbers as fractions
17	Round decimals with 2 decimal places to whole number or to one decimal place
18	Read, write, order and compare numbers with up to 3 decimal places
19	Recognise % symbol and explain as a fraction with denominator 100 (parts out of 100)
20	Understand and use common approximate conversions between metric and imperial
21	Measure and calculate the perimeter of composite rectilinear shapes
22	Calculate the area of rectangles, and estimate the area of irregular shapes
23	Use the properties of rectangles to find missing lengths and angles
24	Distinguish between regular and irregular polygons
25	Identify 3-d shapes from 2-d representations
26	Know angles are measured in degrees and compare acute, obtuse and reflex angles
27	Draw and measure angles to the nearest degree
28	Identify angles at a point, in a turn and on a straight line
29	Describe and represent the result of a reflection or translation
30	Complete, read and interpret information in tables, including timetables



SCIENCE

1	Plan scientific investigations, including controlling variables where appropriate
2	Record data using diagrams, keys, tables and a range of graphs
3	Report conclusions and explanations from scientific investigations
4	Describe the life process of reproduction in some plants and animals.
5	Explain how mixtures can be separated through filtering, sieving and evaporating
6	Explain that some irreversible changes form new materials
7	Describe the movement of the Earth, and other planets, relative to the Sun
8	Explain day and night on earth, and the apparent movement of the Sun
9	Explain that gravity causes unsupported objects to fall towards the Earth
10	Identify the effects of air resistance, water resistance and friction between moving surfaces



ENGLISH

Reading

1	Use knowledge of morphology and etymology to read aloud and understand new words
2	Make comparisons within and across books
3	Read a range of modern fiction, fiction from literary heritage and books from other cultures and traditions
4	Identify and discuss themes and conventions across a wide range of writing
5	Discuss understanding of texts, including exploring meaning of words in context
6	Ask questions to improve understanding of texts
7	Summarise ideas drawn from more than one paragraphs, identifying key details
8	Predict future events from details stated and implied
9	Identify how language, structure and presentation contribute to meaning
10	Discuss how authors use language, including figurative language, to affect the reader
11	Make book recommendations, giving reasons for choices
12	Participate in discussions about books, building on and challenging ideas
13	Explain and discuss understanding of reading
14	Participate in formal presentations and debates about reading
15	Provide reasoned justifications for views

Y5 word list

These words must be learned by Y5 pupils, incorporated into dictated sentences and used in writing:

<p>accompany according achieve aggressive appreciate attached average awkward bargain category committee communicate community competition conscious criticise</p>	<p>develop dictionary disastrous environment especially exaggerate excellent explanation forty government language lightening marvellous necessary neighbour</p>	<p>profession programme recognise relevant shoulder signature sincere(ly) suggest symbol system temperature twelfth thorough variety vegetable vehicle</p>
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Writing

1	Spell some words with silent letters
2	Recognise and use spellings for homophones and other often-confused words
3	Use a dictionary to check spelling and meaning
4	Identify the audience and purpose before writing, and adapt accordingly
5	Select appropriate grammar and vocabulary to change or enhance meaning
6	Develop setting, atmosphere and character, including through dialogue
7	Précis longer passages
8	Use a range of cohesive devices
9	Use advanced organisational and presentational devices
10	Use the correct tense consistently throughout a piece of writing
11	Ensure correct subject and verb agreement
12	Perform compositions using appropriate intonation, volume and movement
13	Use a thesaurus
14	Use expanded noun phrases to convey complicated information concisely
15	Use modal verbs or adverbs to indicate degrees of possibility
16	Use relative clauses
17	Convert nouns or adjectives into verbs
18	Use adverbials of time, place and number for cohesion
19	Recognise vocabulary and structures that are appropriate for formal use
20	Use passive verbs to affect the presentation of information
21	Use the perfect form of verbs to mark relationships of time and cause
22	Recognise difference in informal and formal language
23	Use grammatical connections and adverbials for cohesion
24	Use ellipsis
25	Use commas to clarify meaning or avoid ambiguity
26	Use brackets, dashes and commas to indicate parenthesis
27	Use hyphens to avoid ambiguity
28	Use semi-colons, colons and dashes between independent clauses
29	Use a colon to introduce a list
30	Punctuate bullet points consistently



Upper KS2: Year Six Objectives

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MATHS

1	Use negative numbers to calculate intervals across zero
2	Divide numbers using long division, interpreting the remainders as appropriate
3	Use order of operations to carry out calculations
4	Use common factors to simplify fractions
5	Compare and order fractions of any size
6	Add and subtract fractions with different denominators and mixed numbers
7	Multiply simple pairs of proper fractions
8	Divide proper fractions by whole numbers
9	Calculate decimal fraction equivalents for simple fractions
10	Multiply a number with up to two decimal places by whole numbers
11	Use written division with answers of up to two decimal places
12	Solve problems involving the calculation of percentages
13	Recall and use equivalences between fractions, decimals and percentages
14	Solve problems using ratio using multiplication and division facts
15	Solve problems involving similar shapes where the scale factor is known
16	Solve problems involving proportion, using knowledge of fractions and multiples
17	Use simple formulae
18	Generate and describe linear number sequences
19	Express missing number problems algebraically
20	Convert units of measure between smaller and larger units
21	Convert between miles and kilometres
22	Calculate the area of parallelograms and triangles
23	Calculate and compare volume of cubes and cuboids
24	Illustrate and name parts of a circle
25	Finding missing angles in triangles, quadrilaterals and regular polygons
26	Recognise vertically opposite angles and find missing angles
27	Describe positions on the full co-ordinate grid
28	Translate shapes on a co-ordinate grid and reflect in the axes
29	Construct and interpret pie charts
30	Calculate the mean as an average



SCIENCE

1	Use test results to design further investigations
2	Using simple models to describe scientific ideas
3	Identifying scientific evidence that has been used to support or refute ideas or arguments.
4	Classify some plants, animals or micro-organisms, explaining the choices made
5	Explain the main parts and functions of the human circulatory system, including heart and blood vessels
6	Recognise that living things produce offspring which are not usually identical to their parents
7	Identify how adaptation of plants and animals over time may lead to evolution.
8	Explain that we see things which either give out or reflect light
9	Explain how the number of voltage of cells affects bulbs, buzzers or motors in a circuit
10	Use recognised symbols when representing a simple circuit in a diagram.



ENGLISH

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
2	Making comparisons within and across books
3	Modern fiction, fiction from our literary heritage, and books from other cultures and traditions
4	Identifying and discussing themes and conventions in and across a wide range of writing
5	Checking that the book makes sense to them, discussing their understanding and exploring the meaning of words in context
6	Asking questions to improve their understanding
7	Summarising the main ideas drawn from more than one paragraph, identifying key details to support the main ideas
8	Predicting what might happen from details stated and implied
9	Identifying how language, structure and presentation contribute to meaning
10	Discuss and evaluate how authors use language, including figurative language, considering the impact on the reader
11	Recommending books that they have read to their peers, giving reasons for their choices
12	Participate in discussions about books, building on their own and others' ideas and challenging views courteously
13	Explain and discuss their understanding of what they have read,
14	Including through formal presentations and debates,
15	Provide reasoned justifications for their views

Y6 word list

These words must be learned by Y6 pupils, incorporated into dictated sentences and used in writing:

<p>accommodate amateur available bruise cemetery conscience controversy convenience correspond curiosity definite desperate determined equip (-ed, - ment) existence</p>	<p>familiar foreign guarantee harass hindrance identify immediate (ly) individual interfere interrupt leisure mischievous muscle nuisance occupy occur opportunity</p>	<p>parliament persuade physical prejudice privilege pronunciation queue recommend restaurant rhyme rhythm sacrifice secretary soldier stomach sufficient thorough yacht</p>
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