Progression in the (new) National Curriculum

Introduction

The purpose of this document is to help teachers and school leaders quickly see progression in the National Curriculum (2014).

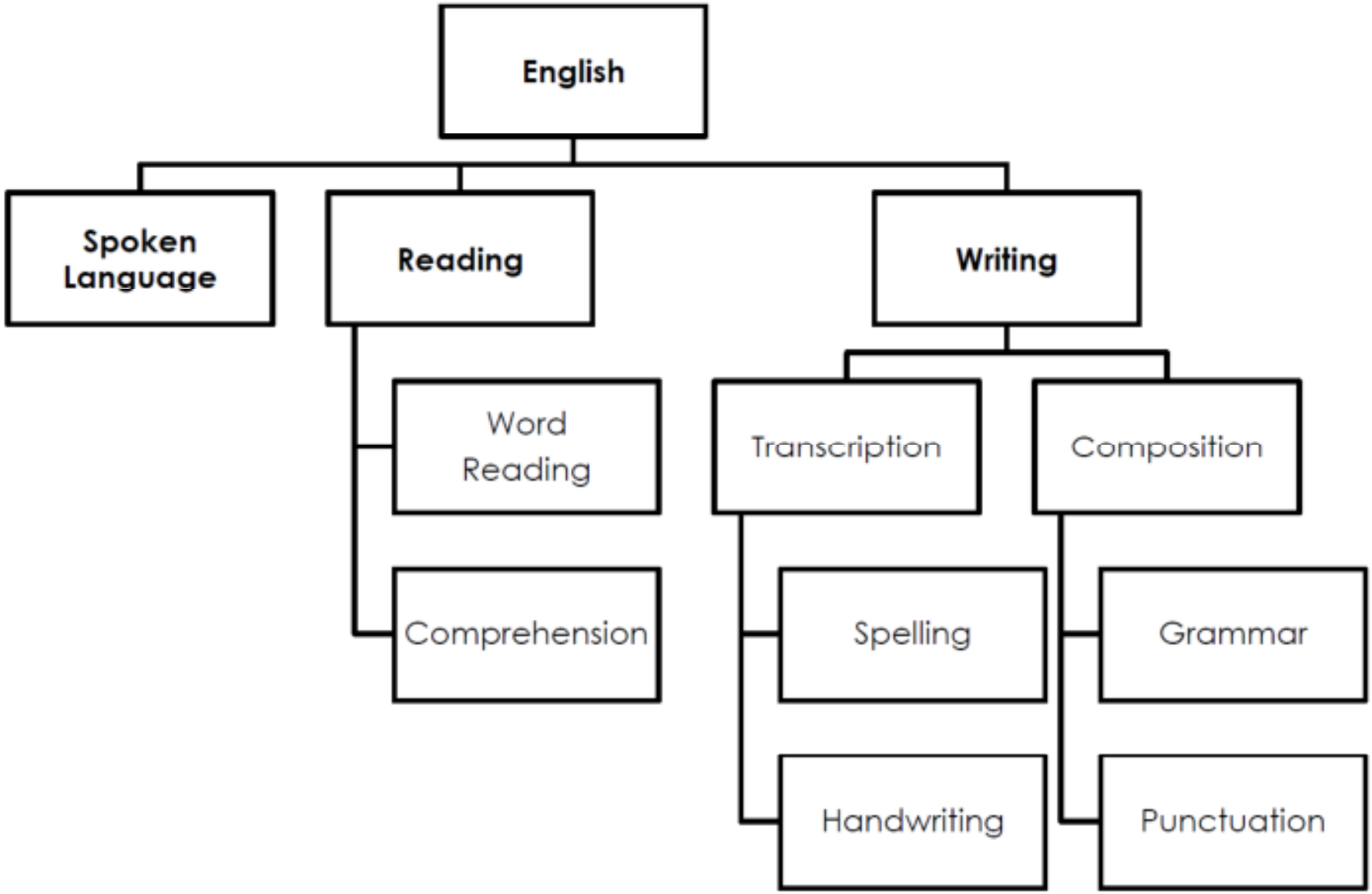
- The content for English and mathematics is outlined by strand. This enables a quick view of the end of year expectations. These charts are useful for teachers when planning for differentiation and challenge.

- The content for science is outlined by end of unit expectations on a year group basis.

- The content for the other subjects is outlined by end of key stage expectations.

Users should be fully aware that the Department for Education may change any element of these descriptors. This document was wholly accurate at the date of publication – in line with The National Curriculum in England: Framework Document (July 2013).

Contents



Spoken language	
Years 1-6	▪ Listen and respond appropriately to adults and their peers ▪ Ask relevant questions to extend their understanding and build vocabulary and knowledge ▪ Articulate and justify answers, arguments and opinions ▪ Give well-structured descriptions and explanations ▪ 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 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

Reading: Word reading						
Rec/ELG	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
Use **phonic knowledge** to decode regular words and read them aloud accurately. ELG	Apply **phonic knowledge** & skills as the route to decode words.	Continue to apply **phonic knowledge** & skills as the route to decode words until automatic decoding has become embedded & reading is fluent.				
	Respond speedily with the correct sound to **graphemes** for all 40+ phonemes, including alternative sound for graphemes.	Read accurately by **blending** the sounds in words that contain the **graphemes** taught so far, especially recognising alternative sounds for graphemes.				
	Read accurately by **blending** sounds in unfamiliar words containing GPCs that have been taught.					
Read some **common irregular words**. ELG	Read **common exception words**, noting unusual correspondences between spelling and sound and where these occur in the word.	Read further **common exception words**, noting unusual correspondence between spelling & sound and where these occur in the word.	Read further **exception words**, noting the unusual correspondences between spelling and sound, and where these occur in the word.			
	Read words containing **taught GPCs** and –s, -es, -ing, -ed, -er and –est endings.					
	Read other **words of more than one syllable** that contain taught GPCs.	Read accurately **words of two or more syllables** that contain the taught GPCs.				
	Read words with **contractions**, e.g. *I'm, I'll, we'll* and understand that the apostrophe represents the missing letter(s).					
		Read most words quickly and accurately when they have been frequently encountered **without overt sounding & blending**.				
	Read aloud accurately books that are consistent with their developing phonic knowledge and that do not require them to use other strategies to work out words.	**Read aloud** books closely matched to their improving phonic knowledge, sounding out unfamiliar words accurately, automatically & without undue hesitation.				
	Re-read these books to build up their **fluency & confidence** in word reading.	Re-read these books to build up their **fluency & confidence** in word reading.				
		Read words containing common **suffixes**.	Apply their growing knowledge of root words, **prefixes and suffixes** (etymology and morphology), both to read aloud and to understand the meaning of new words they meet.		Apply their growing knowledge of **root words, prefixes and suffixes** (etymology and morphology), both to read aloud and to understand the meaning of new words they meet.	

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Reading: Comprehension[1]						
Rec/ELG	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
	Develop **pleasure** in reading, **motivation** to read, and **understanding** by:		Develop **positive attitudes** to reading and **understanding** of what they read by:		Maintain **positive attitudes** to reading and **understanding** of what they have read by:	
	Listening to & **discussing** a wide range of poems, stories & non-fiction at a level beyond that at which they can read independently	**Listening** to, **discussing** & expressing views about a wide range of poetry (incl contemporary & classic), stories & non-fiction at a level beyond that at which they can read independently	**Listening** to and **discussing** a wide range of fiction, poetry, plays, non-fiction and reference books or textbooks		Continuing to **read** & **discuss** an increasingly wide range of fiction, poetry, plays, non-fiction and reference books or textbooks.	
	Being encouraged to **link what they read** or heard read to their own experiences					
		Discussing the **sequence of events** in books & how items of information are related.	Reading books that are **structured** in different ways and reading for a **range of purposes**.		Reading books that are **structured** in different ways and reading for a **range of purposes**.	
			Using **dictionaries** to check the meaning of words that they have read.			
	Becoming very **familiar** with key stories, fairy stories & traditional tales, retelling them & considering their particular characteristics	Becoming increasingly **familiar** with & retelling a wider range of stories, fairy stories & traditional tales.	Increasing their **familiarity** with a wide range of books, including fairy stories, myths, legends, and retelling of some of these orally.		Increasing their **familiarity** with a wide range of books, including myths, legends & 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.	
	Recognising & joining in with **predictable phrases**	Recognising simple **recurring literary language** in stories & poems.				
		Discussing their favourite words & phrases.	Discussing words & phrases that **capture the reader's interest** and imagination.			
			Identifying **themes & conventions** in a wider range of books.		Identifying & discussing **themes & conventions** in and across a wide range of writing.	
					Making **comparisons** within & across books.	
			Recognising some **different forms of poetry** (e.g. free verse, narrative poetry).			
	Learning to appreciate **rhymes & poems**, and to recite some by heart	Continuing to build up a repertoire of **poems** learnt by heart, appreciating these & reciting some, with appropriate intonation to make the meaning clear.	Preparing **poems** and **play scripts** to read aloud and perform, showing understanding through intonation, tone, volume and action.		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.	
		Being introduced to **non-fiction** books that are structured in different ways.				

Reading: Comprehension[2]						
Rec/ELG	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
Read & **understand** simple sentences. ELG	**Understand** both the boo**ks they can already read accurately and fluently** and those they **listen to** by:		**Understand** that they read, in **books they can read independently**, by		**Understand** what they read by:	
	Drawing on **what they already know** or on background information & vocab provided by the teacher.	Drawing on **what they already know** or on background information & vocab provided by the teacher.				
	Checking that the text **makes sense** to them as they read & correcting inaccurate reading.	Checking that the text **makes sense** to them as they read & correcting inaccurate reading.	Checking that the text **makes sense** to them, discussing their understanding & explaining the meaning of the words in context.		Checking that the book **makes sense** to them, discussing their understanding & exploring the meaning of the words in context.	
	Discussing the significance of the title & events					
	Making **inferences** on the basis of what is being said & done	Making **inferences** on the basis of what is being said & done	Drawing **inferences** such as inferring characters' feelings, thoughts & motives from their actions, & justifying inferences with evidence		Drawing **inferences** such as inferring characters' feelings, thoughts & motives from their actions, and justifying inferences with evidence.	
	Predicting what might happen on the basis of what has been read so far	**Predicting** what might happen on the basis of what has been read so far	Predicting what might happen from details stated & implied		**Predicting** what might happen from details stated and implied.	
		Answering & asking **questions**	Asking **questions** to improve their understanding of the text.		Asking **questions** to improve their understanding.	
					Provide reasoned justifications for their views.	
					Discuss & evaluate how authors **use language**, including figurative language, considering the impact on the reader.	
			Identifying **main ideas** drawn from more than one paragraphs & summarise these.		Summarising the **main idea** drawn from more than one paragraph, identifying key details that support the main ideas.	
			Identifying how **language, structure & presentation** contribute to meaning.		Identifying how **language, structure & presentation** contribute to meaning.	
			Retrieve & record information from non-fiction..		Retrieve, record & present information from **non-fiction**.	
					Distinguish between statements of **fact & opinion**.	
	Participate in **discussion** about what is read to them, taking turns & listening to what others say.	Participate in **discussion** about books, poems & other words that are read to them & those that they can read for themselves, taking turns & listening to what others say.	Participate in **discussion** about both books that are read to them and those that they can read for themselves, taking turns & listening to what others say.		Participate in **discussion** about both books that are read to them and those that they can read for themselves, building on their own & others' ideas & challenging views courteously.	
Demonstrate **understanding** when talking to others about what they have read. ELG	Explain clearly their **understanding** of what is read to them.	Explain & discuss their **understanding** of books, poems & other material, both those that they listen to & those that they read for themselves.			Explain & 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.	

Writing: Handwriting						
Rec/ELG	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
	Sit correctly at table, holding pencil comfortably and correctly.					
	Begin to form **lower-case** letters in the correct direction, starting and finishing in the right place.	Form **lower-case** letters of the correct size relative to one another.				
		Start using some of the diagonal & horizontal strokes needed to **join letters** and understand which letters, when adjacent to one another, are best left unjoined.	Use the diagonal & horizontal strokes needed to **join letters** and understand which letters, when adjacent to one another, are best left unjoined.			
	Form **capital letters**.	Write **capitals** of the correct size, orientation and relationship to one another and to lower case letters.				
		Use **spacing** between words that reflects the size of the letters.				
	Form **digits** 0 – 9.	Write **digits** of the correct size and orientation.				
	Understand which letters belong to which handwriting '**families**' and practise these.					
			Increase the **legibility**, **consistency** and **quality** of handwriting, e.g. by ensuring that down strokes of letters are parallel and equidistant; that lines of writing are spaced sufficiently so that the ascenders and descenders of letters do not touch.		Write **legibly**, **fluently**, with increasing **speed** & **personal style** by: - choosing which shape of letter to use when given choices and deciding, as part of their personal style, where or not to join specific letters - choosing the writing implement that is best suited for the task	

Writing: punctuation & grammar						
Rec/ELG	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
	Sentence structure How **words** can combine to make **sentences**. Joining **words** and joining **sentences** using *and*.	**Subordination** (using *when*, *if*, *that because*) and **co-ordination** (using *or*, *and*, or *but*). Expanded **noun phrases** for description and specification (e.g. the blue butterfly). **How the grammatical patterns in a sentence indicate its function as a** statement, question, exclamation or command.	Expressing time, place and cause using **conjunctions** (e.g. when, so, before, after, while, because), **adverbs** (e.g. then, next, soon, therefore) or **prepositions** (e.g. before, after, during, in because)	Noun phrases expanded by the addition of modifying adjectives, nouns and preposition phrases (e.g. the teacher expanded to: the strict maths teacher with curly hair). **Fronted adverbials** (e.g. Later that day, I head bad news).	**Relative clauses** beginning with who, which, where, why, whose, that or an omitted relative pronoun. Indicating degrees of possibility using **adverbs** (e.g. perhaps, surely) or **modal verbs** (e.g. might, should, will, must).	Use of the **passive voice** to affect the presentation of information in a sentence. The difference between structures typical of informal speech and structures appropriate for formal speech and writing (such as the use of question tags, e.g. He's your fiend, isn't he?, or the use of **subjunctive** forms such as *I were* or *Were they to come* in some very formal writing and speech)
	Text structure Sequencing **sentences** to form short narratives.	Correct choice and consistent use of the **present tense** and **past tense** throughout writing. Use of the **progressive** form of **verbs** in the **present** and **past tense** to mark actions in progress.	Introduction to **paragraphs** as a way to group related material. **Headings** & **sub-headings** to aid presentations Use of the **present perfect** form of **verbs** instead of the simple past *(e.g. He has gone out to play contrasted with He went out to play)*	Use **paragraphs** to organise ideas around a theme. Appropriate choice of **pronoun** and **noun** within and across **sentences** to aid cohesion and avoid repetition.	Devices to build **cohesion** within a paragraph (e.g. then, after that, this, firstly). Linking ideas across paragraphs using **adverbials** of time (e.g. later), place (e.g. nearby) and number (e.g. secondly).	Linking ideas across paragraphs using a wider range of **cohesive devices**: repetition of **word** or phrase, grammatical connections (e.g. the use of **adverbials** such as *on the other hand*, *in contrast*) and **ellipsis**. **Layout devices**, such as headings, sub-headings, columns, bullets, tables, to structure text.
	Punctuation Separation of words with **spaces**. Introduction to **capital letters**, **full stops**, **question marks** & **exclamation marks** to demarcate sentences. Capital letters for names and the **personal pronoun** I.	Use of **capital letters**, **full stops**, **question marks** and **exclamation marks** to demarcate sentences. **Commas** to separate items in a list. **Apostrophes** to mark where letters are missing in spelling.	Introduction to **inverted commas** to punctuate direct speech.	Use of **inverted commas** and other punctuation indicate direct speech. **Apostrophes** to mark singular and plural possession. Use of commas after **fronted adverbials**.	**Brackets**, **dashes** or **commas** to indicate parenthesis. Use of **commas** to clarify meaning or avoid ambiguity.	Use of **semi-colon**, **colon** and **dash** to mark the boundary between independent clauses. Use of the **colon** to introduce a list. Punctuation of **bullet points** to list information. How **hyphens** can be used to avoid ambiguity.
	Terminology Word, sentence, letter, capital letter, full stop, punctuation, singular, plural, questions mark, exclamation mark.	Verb, tense (past, present), adjective, noun, suffix, apostrophe, comma, noun phrase, statement, question, exclamation, command, compound.	Word family, conjunction, adverb, preposition, direct speech, inverted commas (or speech marks), prefix, consonant, vowel, consonant letter, vowel letter, clause, subordinate clause.	Determiner pronoun, possessive pronoun, adverbial.	Relative clause, modal verb, relative pronoun, parenthesis, bracket, dash, cohesion, ambiguity.	Active and passive voice, subject and object, hyphen, ellipsis, colon, semi-colon, bullet points, synonym and antonym.

Writing: composition						
Rec/ELG	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
		Develop **positive attitudes** towards & **stamina** for writing by writing: - narratives about personal experiences and those of others (real and fictional) - about real events - poetry - for different purposes				
	Plan writing Say out loud what they are going to write about	**Plan writing** Plan or say out loud what they are going to write about Write idea and/or key words including new vocab.	**Plan writing** Discuss writing similar to that which they are planning to write in order to understand and learn from its structure, vocabulary and grammar. Discuss and record ideas.		**Plan writing** - Identify audience and purpose - Select appropriate form and use other similar writing as model - Note and develop initial ideas, drawing on reading & research - In writing narratives, consider how authors have developed characters and settings in what they have read, listened to & seen performed	
	Drafting and writing Compose a sentence orally before writing.		**Drafting and writing** **Compose & rehearse sentences orally** (including dialogue), progressively building a varied & rich vocabulary & increasing range of sentence structures.		**Drafting and writing** Select appropriate grammar and vocab, **understanding how choices can change and enhance meaning**	
	Sequence **sentences** to form short narrative.	Encapsulate what they want to say, **sentence by sentence**.	Organise **paragraphs** around a theme		Use a wide range of devices to build cohesion within and across **paragraphs**. Précis longer paragraphs.	
			In **narratives**, create settings, characters & plot		In **narratives**, describe settings, characters and atmosphere and integrate dialogue to convey character and advance the action	
			In **non-narrative** material, use simple organisational devices such as headings and sub-headings		Use further organisational and presentational devices to structure text and guide the reader.	
		Make **additions, revision and corrections**: - Evaluate their writing with the teacher or others - Re-read to check it makes sense and that verbs to indicate time are used correctly & consistently, incl verbs in the continuous form	**Evaluate & edit**: - Assess the effectiveness of their own and others' writing and suggest improvements - Propose changes to grammar & vocab to improve consistency		**Evaluate & edit**: - Assess the effectiveness of their own and others' writing - Propose changes to grammar, vocab and punctuation to enhance effects and clarify meaning - Ensure the consistent and correct use of tense throughout a piece of writing - Ensure correct subject and verb agreement when using singular and plural, distinguishing between the language of speech and writing and choosing the appropriate register	
	Re-read what they have written to check it makes sense	**Proof read** to check for errors in spelling, grammar and punctuation	**Proof read** for spelling and punctuation errors.		**Proof read** for spelling and punctuation errors.	
Write simple sentences which can be read by themselves & others. ELG	**Discuss** what they have written with the teacher or other pupils. **Read aloud** their writing clearly enough to be heard by their peers and the teacher.	**Read aloud** their writing with appropriate intonation to make the meaning clear.	**Read aloud** their writing, to a group or whole class, using appropriate intonation and controlling the tone and volume so that the meaning is clear.		**Perform** their own compositions, using appropriate intonation, volume, and movement so that meaning is clear.	

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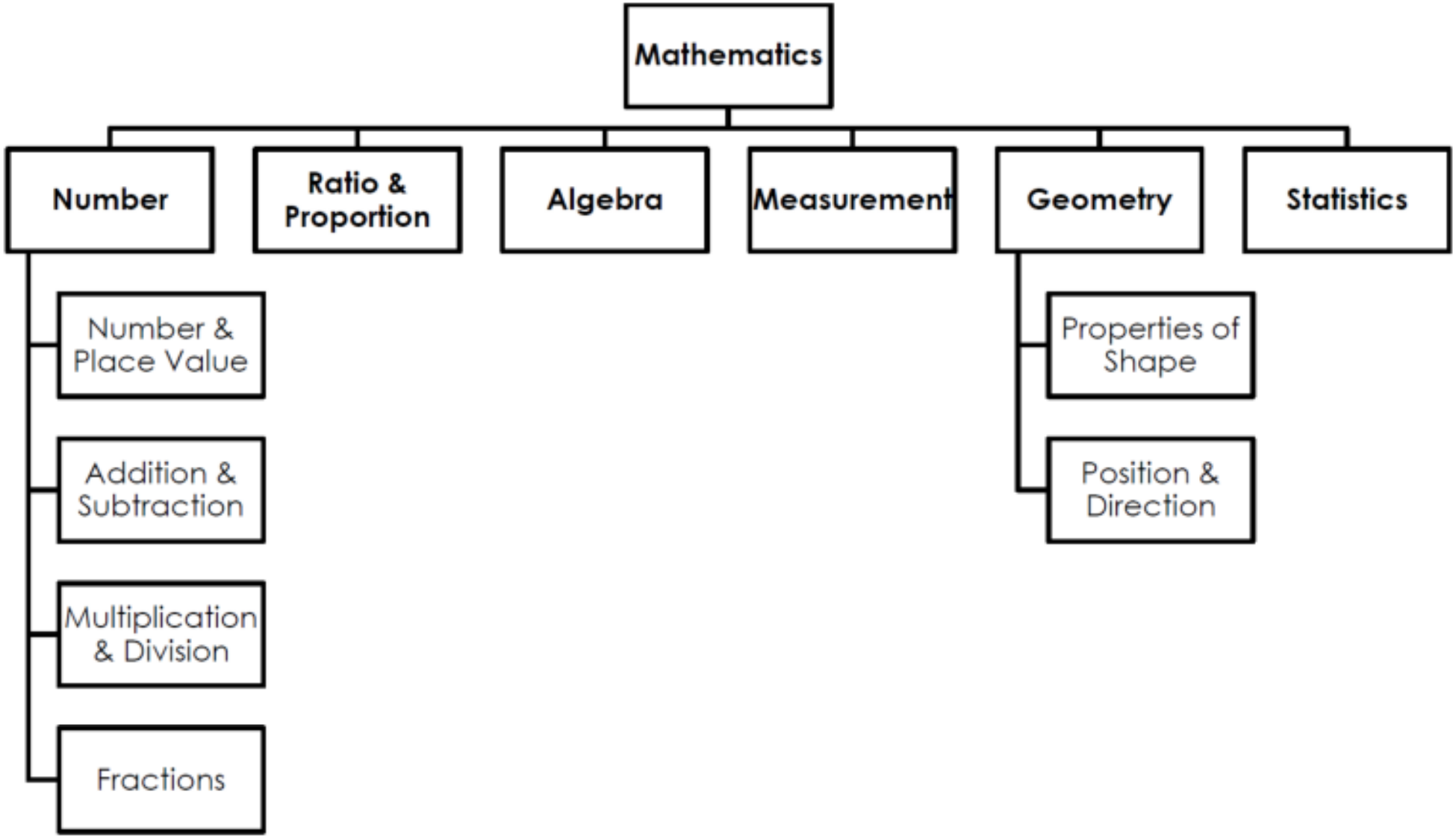
Writing: Spelling [1]						
Rec/ELG	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
Use **phonic knowledge** to write words in ways which match spoken sounds. ELG. Some words are spelt correctly and others are **phonetically plausible**. ELG	Spell words containing each of the 40+ **phonemes** already taught	Spell by segmenting words into **phonemes** and representing these by graphemes, spelling many correctly				
		Learn new ways of spelling **phonemes** for which one or more spellings are already known				
Write some common **irregular** words. ELG	Common **exception words**	Common **exception words**				
		Words with **contracted** forms				
		Distinguish between **homophones** and near homophones	Spell further **homophones**		Continue to distinguish between **homophones** and other words which are often confused.	
	Days of the week					
	Name the letters of the **alphabet**: - name in order - use letter names to distinguish between alternative spellings of same sound		Use the first two or three letters of a word to check its spelling in a **dictionary**		Use the first three or four letters of a word to check spelling, meaning or both of these in a **dictionary**. Use **dictionaries** to check the spelling and meaning of words Use a **thesaurus**	
	Add **prefixes & suffixes**: - -s or – es - un- - -ing, -ed, -er and -est	Add **suffixes** to spell longer words: -ment, -ness, -ful and –less.	Use further **prefixes & suffixes** (see below)		Use further **prefixes & suffixes** and understand the guidelines for adding them	
	Write **from memory** simple dictated sentences.	Write from memory simple dictated sentences including taught words and punctuation.	Write **from memory** simple dictated sentences including taught words and punctuation.			
					Spell words with **silent letters**	
					Use knowledge of **morphology & etymology** in spelling and understand that the spelling of some words need to be learnt specifically.	
	Revision of: - all grapheme-phoneme correspondences - the process of segmenting spoken words into sounds before choosing graphemes to represent sounds - words with adjacent consonants - rules & guidelines which have been taught - vowel digraphs	The sound spelt –ge and –dge at the end of words, and sometimes spelt as –g elsewhere in words before e, I and y	Revise adding suffixes		Endings which sound like –cious or –tious	

Writing: Spelling [2]						
Rec/ELG	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
	/f/, /l/, /s/, /z/ and /k/ spelt ff, ll, ss, zz and ck.	The /s/ sound spelt c before e, i and y	Adding suffixes beginning with vowel letters to words of more than one syllable.		Endings which sound like –cial and --tial	
	/n/ sound spelt n before k	The /n/ sound spelt kn- and (less often) gn at the beginning of words	The sound spelt y elsewhere than at the end of words		Words ending in –ant, -ance, -ancy, -ent, -ence, -ency	
	Division of words into syllables.	The sound spelt wr- at the beginning of words	The sound spelt ou		Words ending in –able/-ably and –ible/-ibly.	
	-tch	The sound spelt –le at the end of words	More prefixes			
	The /v/ sound at the end of words	The sounds spelt –el at the end of words	The suffix – ation		Use of hyphen	
	Adding s and es to words	The sound spelt –al at the end of words	The suffix – ly		Words with the /i:/ sound spelt ei after c	
	Adding the endings –ing, -ed, -er to verbs where no change is needed to the root word.	Words ending –il	Words ending sounding like –sure and –ture		*Words containing the letter-string ough*	
	Adding –er and –est to adjectives where no change is needed to the root word.	The sound spelt –y at the end of words	Endings sounding like – sion		Words with silent letters	
	Vowel digraphs and trigraphs: Ai, oi, ay, oy, a-e, e-e, i-e, o-e, u-e, ar, ee, ea, ea, er, er, ir, ur, oo, oo, oa, oe, ou, ow, ow, ue, ew, ie, ie, igh, or, ore, aw, au, air, ear, ear, are	Adding –es to nouns and verbs ending letter-y				
	Words ending in –y	Adding –ed, -ing, and –est to root words ending in –y with a consonant before it.	Endings which sound like –ion, -ian, -tion, -ssion, -sion, -cian			
	New consonant spellings ph and wh	Adding the endings –ing, -ed, -er, -est and –y to words ending in –e with a consonant before it.	Words with the /k/ sound spelt ch (Greek)			
	Using k for th /k/ sound	Adding –ing, -ed, -er, -est and –y to words of on syllable ending in a single consonant letter after a single vowel.	Words with the /f/ sound spelt ch (French)			
		The sound spelt a before –l and –ll	Words ending with the /g/ sound spelt –gue and the /k/ sound spelt -que (French)			
	Compound words	The sounds spelt o	Words with the /s/ sound spelt sc (Latin)			
	Common exception words	The sound spelt –ey	Words with the sound spelt ei, eigh or ey			
		The sound spelt a after w and qu				
		The sound spelt or after w				
		The sound spelt ar after w				
		The sound spelt s				
	Adding the prefix –un	The suffixes – ment, -ness, -ful, –less and –ly.	The suffix – ous		Adding suffixes beginning with vowel letters to words ending in –fer	
		Contractions				
		The possessive apostrophe (singular nouns)	Possessive apostrophe with plural words			
		Words ending in –tion				
		Homophones and near homophones	Homophones or near homophones		Homophones and other words that are often confused.	
		Common exception words				



Number, place value & rounding						
Rec/ELG	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
Count reliably with numbers from 1 – 20.	**Count** to and across 100, forward & backwards, beginning with 0 or 1, on or from any given number.			**Count** backwards through zero to include negative numbers.	**Count** forwards or backwards in steps of powers of 10 for any given number up to 1 000 000.	
					Interpret **negative numbers** in context, count forwards and backwards with positive and negative whole numbers through zero.	Use **negative numbers** in context, & calculate intervals across zero.
	Count in different **multiples** including 2s, 5s, and 10s.	Count in **steps** of 2, 3 & 5 from 0, and count in tens from any number, forward & backward.	Count from 0 in **multiples** of 4, 8, 50 & 100.	Count in **multiples** of 6, 7, 9, 25 & 1000.		
Say which is 1 **more** or 1 **less** than a given number (to 20).	Given a number, identify 1 **more** and 1 **less**.		Find 10 or 100 **more** or **less** than a given number.	Find 1000 **more** or **less** than a given number.		
	Identify and represent numbers using concrete objects and pictorial representations including the number line, & use the language of: equal to, more than, less than (fewer), most, least.	**Identify, represent & estimate** numbers using different representations, incl the number line.	**Identify, represent & estimate** numbers using different representations.	**Identify, represent & estimate** numbers using different representations.		
	Read & write numbers to 100 in numerals. **Read & write** numbers from 1 – 20 in digits & words	**Read & write** numbers to at least 100 in numerals and in words.	**Read & write** numbers to at least 1000 in numerals & in words.		**Read, write, order & compare** numbers to at least 1 000 000 & determine the value of each digit.	**Read, write, order & compare** numbers up to 10 000 000 & determine the value of each digit.
Order numbers 1 – 20.		**Compare & order** numbers from 0 up to 100; use <, > & = signs.	**Compare & order** numbers up to 1000.	**Compare & order** numbers beyond 1000.		
		Recognise the **place value** of each digit in a 2-digit number.	Recognise the **place value** of each digit in a 3-digit number.	Recognise the **place value** of each digit in a 4-digit number.	*Read, write, order & compare numbers to at least 1 000 000 & determine the **value** of each digit.*	
				Round any number to the nearest 10, 100 or 1000.	**Round** any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 & 100 000.	**Round** any whole number to a required degree of accuracy.
				Read **Roman numerals** to 100 (I to C) & understand how, over time, the numeral system changed to include the concept of zero & place value.	Read **Roman numerals** to 1000 (M) and recognise years written in Roman numerals.	
		Use place value & number facts to **solve problems**.	Solve **number problems & practical problems** involving these ideas.	Solve **number & practical problems** that involve all of the above & with increasingly large positive numbers.	Solve **number & practical problems** that involve all of the above.	Solve **number & practical problems** that involve all of the above.

Addition and subtraction						
Rec/ELG	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
	Read, write & interpret mathematical statements involving + - = signs.					
	Represent and use number bonds & related subtraction facts within 20.	**Recall** & use addition & subtraction facts to 20 fluently, & derive & use related facts up to 100.				
	Solve **one-step problems** that involve addition & subtraction, using concrete objects & pictorial representations, & missing number problems,	Solve **problems** with addition & subtraction: - Using concrete objects & pictorial representations, incl those involving numbers, quantities & measures - Applying their increasing knowledge of mental & written methods		Solve addition & subtraction **two-step problems** in contexts, deciding which operations & methods to use & why.	Solve addition & subtraction **multi-step problems** in contexts, deciding which operations & methods to use & why.	Solve addition & subtraction **multi-step problems** in contexts, deciding which operations & methods to use & why.
Add & subtract two single digit numbers. ELG **Count on or back** to find the answer. ELG	**Add & subtract** 1-digit & 2-digit numbers to 20, including zero.	**Add & subtract** numbers using concrete objects, pictorial representations, & mentally, including: - 2-digit no & ones - 2-digit no & tens - Two 2-digit numbers - Adding three 1-digit numbers	**Add & subtract** numbers mentally, including: - 3-digit no & ones - 3-digit no & tens - 3-digit no & hundreds		**Add & subtract** numbers mentally with increasingly large numbers.	Perform mental calculations, incl with **mixed operations** & large numbers.
			Add & subtract numbers with up to 3 digits, using formal written methods of columnar addition & subtraction.	**Add & subtract numbers with up to 4 digits** using the formal written methods of columnar addition & subtraction where appropriate.	**Add & subtract whole numbers with more than 4 digits** including using formal written methods (columnar addition & subtraction).	Use knowledge of the order of operations to carry out calculations involving **four operations**.
		Show that addition of two numbe can be done in any order (**commutative**) & subtraction of one no from another cannot.				
		Recognise & use the **inverse** relationship between addition & subtraction & use this to check calculations & missing number problems.	**Estimate** the answer to a calculation & use the **inverse** operations to check answers.	**Estimate** & use **inverse** operations to check answers to a calculation.	Use **rounding** to check answers to calculations & determine, in the context of a problem, levels of accuracy.	Use **estimation** to check answers to calculations & determine, in the context of a problem, levels of accuracy.
			Solve problems, incl missing number problems, number facts, place value, & more complex addition & subtraction.			**Solve problems** involving addition, subtraction, multiplication & division.

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Multiplication and division						
Rec/ELG	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
		Recall & use multiplication & division facts for the **2, 5, 10 tables**, incl recognising odd & even nos.	Recall & use the **multiplication & division facts for the 3, 4, 8 tables**.	Recall **multiplication & division facts for tables up to 12x12**	Identify all **multiples & factors**, including finding all factor pairs of a number, & common factors of two numbers.	Identify **common factors, common multiples & prime numbers.**
					Know & use the **vocabulary of prime numbers, prime factors & composite** (non-rime) numbers.	
					Establish where a number up to 100 is **prime** & recall prime numbers up to 19.	
		Calculate the **mathematical statements** for multiplication & division within the multiplication tables & write them using x ÷ = signs.				
		Show that multiplication of two nos can be done in any order (**commutative**) & division of one number by another cannot.		Recognise & use factor pairs & **commutativity** in mental calculations.	Multiply & divide numbers mentally drawing upon known facts.	Perform mental calculations, incl mixed operations & large numbers.
			Write & calculate mathematical statements for multiplication & division **using the multiplication tables** that they know, incl 2-digit x 1-digit, using mental & progressing to formal written methods.	**Multiply** 2-digit & 3-digit numbers by a 1-digit number using formal written layout.	**Multiply** numbers up to 4-digits by a 1-digit or 2-digit number using a formal written method, including long multiplication for 2-digit numbers.	**Multiply** multi-digit numbers up to 4-digits by a 2-digit whole number using the efficient written method of long multiplication.
					Divide numbers up to 4-digits by a 1-digit number using the formal written method of short division & interpret remainders appropriately for the context.	**Divide** numbers up to 4-digits by a 2-digit whole number using the efficient written method of long division, & interpret remainders as whole number remainders, fractions, or by rounding, as appropriate to the context.
				Use place value, known & derived facts to multiply & divide mentally, including **multiplying by 0 and 1; dividing by 1**; multiplying three numbers together.	**Multiply & divide** whole numbers & those involving decimals **by 10, 100 and 1000**.	
					Recognise & use **square numbers & cube numbers**, & the notation for squared ^{2} and cubed ^{3}.	

Solve problems, including doubling, halving & sharing. ELG	Solve **one-step problems** involving multiplication & division, calculating the answer using concrete objects, pictorial representations & arrays with the support of the teacher.	Solve **problems** involving multiplication & division, using materials, arrays, repeated addition, mental methods, & multiplication & division facts, incl problems in context.	**Solve problems**, incl missing number problems, involving multiplication & division, incl integer scaling problems & correspondence problems in which n objects are connected to m objects.	**Solve problems** involving multiplying and adding, including the distributive law to multiply 2-digit numbers by 1-digit, integer scaling problems & harder multiplication problems such as n objects are connected to m objects.	**Solve problems** involving addition, subtractions, multiplication & division & a combination of these, incl understanding the meaning of the equals sign.	Use knowledge of the order of operations to carry out calculations involving **four operations**.
					Solve problems involving multiplication & division, including scaling by simple fractions & problems involving simple rates.	
					Solve problems involving multiplication & division where larger numbers are used by decomposing them into their factors.	

Fractions, decimals and percentages						
Rec/ELG	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
						Associate a fraction with division & calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. 3/8).
Solve problems, including doubling, halving & sharing. ELG	Recognise, find & name a **half** as one of two equal parts of an object, shape or quantity. Recognise, find & name a **quarter** as one of four equal parts of an object, shape or quantity.	Recognise, find, name & write fractions **1/3, 1/4, 2/4,** and **3/4** or a length, shape, set of objects or quantity.		Recognise & show, using diagrams, families of common **equivalent fractions**. Recognise & write **decimal equivalents** on any number of tenths or hundredths. Recognise & write **decimal equivalents** to ¼, ½, ¾.	Identify, name & write **equivalent fractions** of a given fraction, represented visually, incl tenths & hundredths. **Read & write decimal numbers** as fractions (e.g. 0.71 = 71/100).	Identify the **value of each digit to three decimal places** and multiply & divide numbers by 10, 100 and 1000 where the answers are up to three decimal places
				Find the effect of dividing a 1-digit or 2-digit number by 10 and 100, identifying the value of the digits in the answer as units, tenths and hundredths.		
		Write simple fractions, e.g. ½ or 6 =3 and recognise the **equivalence** of 2/4 & 1/2.	**Count up & down** in tenths; recognise that tenths arise from dividing an object into 10 equal parts & in dividing 1-digit numbers or quantities by 10.	**Count up & down** in hundredths; recognise that hundredths arise when dividing an object by a hundred & dividing tenths by ten.	**Recognise & use thousandths** & relate then to tenths, hundredths & decimal equivalents.	
					Recognise mixed numbers & improper fractions & convert from one form to the other & write mathematical statements >1 as a mixed number..	
			Compare & order unit fractions, & fractions with the same denominator.		**Compare & order** fractions whose denominators are all multiples of the same number.	**Compare & order fractions**, including fractions >1. Use common factors to simplify fractions; use common multiples to express fractions in the same denomination
			Recognise, find & write fractions or a discrete set of objects: unit fractions & non-unit fractions with small denominators			
			Recognise & use fractions as numbers: unit fractions & non-unit fractions with small denominators.			
			Recognise & show, using diagrams, equivalent fractions with small denominators.			

			Add & subtract fractions with the same denominator within one whole (e.g. 5/7+1/7=6/7)	**Add & subtract fractions** with the same denominator.	**Add & subtract fractions** with the same denominator & multiples of the same number.	**Add & subtract fractions** with different denominators & mixed numbers, using the concept of equivalent fractions.
					Multiply proper fractions & mixed numbers by whole numbers, supported by materials & diagrams.	**Multiply** simple pairs of proper fractions, writing the answer in its simplest form (e.g. ¼ x ½ = 1/8)
						Multiply 1-digit numbers with up to two decimal places by whole numbers.
						Divide proper fractions by whole numbers (e.g. 1/3 ÷ 2 = 1/6). Use written division methods in cases where the answer has up to two decimal places.
				Round decimals with one decimal place to the nearest whole number.	**Round decimals** with two decimal places to the nearest whole number and to one decimal place.	
				Compare numbers with the same number of decimal places up to **two decimal places**.	Read, write, order and **compare number** with up to **three decimal places**.	
					Recognise the **per cent symbol** (%) & understand that per cent relates to 'number or parts per hundred', and write percentages as a fraction with denominator hundred, and as a decimal fraction.	
						Recall & use **equivalences** between simple fractions, decimals & percentages, including in different contexts.
					Solve problems which require knowing **percentage & decimal equivalents** of ½, ¼, 1/5, 2/5, 4/5 and those with a denominator of a multiple of 10 or 25.	Solve problems involving the **calculation of percentages** of whole numbers or measures such as 15% of 360 and the use of percentages for comparison.*
			Solve problems that involve all of the above	**Solve problems** involving increasingly harder fractions to calculate quantities, & fractions to divide quantities, including non-unit fractions where the answer is a whole number. Solve simple measure & money problems involving fractions & decimals to two decimal places.	**Solve problems** involving number up to three decimal places.	**Solve problems** which require answers to be rounded to specified degrees of accuracy.

* Extract from proportion section of NC

Ratio and proportion						
Rec/ELG	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
						Solve problems involving the **relative sizes** of two quantities where missing values can be found by using integer multiplication & division facts.
						Solve problems involving the **calculation of percentages** of whole numbers or measures 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 & grouping** using knowledge of fractions & multiples.

Algebra						
Rec/ELG	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
						Express missing number problems algebraically.
						Use simple **formula** expressed in words.
						Generate & describe **linear number sequences**.
						Find **pairs of numbers** that satisfy number sentences involving two unknowns.
						Enumerate all possibilities of combinations of two variables.

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Measurement						
Rec/ELG	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
GENERAL Use everyday language to talk about size, weight, capacity, position, distance, time & money to compare quantities and objects and solve problems. ELG	Compare, describe & solve practical problems for: - Lengths & heights - Mass or weight - Capacity/volume - Time Measure & begin to record the following: - Length & heights - Mass/weight - Capacity & volume - Time (hrs, mins, secs)	Choose and use appropriate standard units to estimate and measure: - length/height in any direction (m/cm) - mass (kg/g) - temperature (°C) - capacity (l/ml) to the nearest appropriate unit, using rulers, scales, thermometers & measuring vessels. Compare & order lengths, mass, volume/capacity & record the results using >, < and =.	Measure, compare, add & subtract: - lengths (m/cm/mm) - mass (kg/g) - volume/capacity (l/ml)	Convert between different units of measure (e.g. km to m; hr to min) Estimate, compare & calculate different measures.	Convert between different units of metric measure (e.g. km/m; cm//m; cm/mm; g/kg; l/ml). Understand & use equivalences between metric units & common imperial units such as inches, pounds & pints. Use all four operations to solve problems involving measure using decimal notation including scaling. Estimate volume (e.g. using 1 cm^3 blocks to build cubes & cuboids) & capacity (e.g. using water).	Solve problems involving the calculation & conversion of units of measure, using decimal notation to three decimal places where appropriate. Use, read, write & convert between standard units, converting measurements of length, mass, volume & time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to three decimal places. Calculate, estimate & compare volume of cubes & cuboids using standard units, incl cm^3 and m^3 and extending to other units such as mm^3 and km^3. Convert between miles & km. Recognise when it is necessary to use the formulae for area & volume of shapes.
PERIMETER			Measure the **perimeter** of simple 2D shapes.	Measure & calculate the **perimeter** of a rectilinear figure (incl squares) in cm & m.	Measure & calculate the **perimeter** of composite rectilinear shapes in cm &m.	Recognise that shapes with the same areas can have different **perimeters** & vice versa. Recognise when it is necessary to use the formulae for area & volume of shapes.
AREA				Find the **area** of rectilinear shapes by counting squares.	Calculate & compare the **area** of squares & rectangles incl using standard units, square centimetres (cm^2) and square metres (m^2) & estimate the area of irregular shapes.	Calculate the **area** of parallelograms & triangles.

MONEY	Recognise & know the value of different **denominations** or coins & notes.	Recognise & use symbols for **pounds** (£) and **pence** (p); combine amounts to make a particular value. Find different combinations of coins that equal the same amounts of money. Solve simple problems in a practical context involving addition subtraction of money of the same unit, incl giving change.	**Add & subtract amounts** of money to give change, using both £ and p in practical contexts.	Estimate, compare & **calculate** different measures, including money in pounds & pence.		
TIME	Sequence events in **chronological order** using language such as: next, first, today, yesterday, tomorrow, morning, afternoon, evening. Recognise & use **language** relating to dates, incl days of the week, weeks, months, years. **Tell the time to the hour & half past the hour** & draw the hands on a clock face to show these times.	Compare & **sequence** intervals of time. Tell & write the time to **five minutes**, incl **quarter past/to** the hour & draw the hands on a clock face to show these times.	Tell & write the time from an analogue clock, incl using **Roman numerals** from I to XII, & **12-hour & 24-hour** clocks. Estimate & read **time with increasing accuracy to the nearest minute**; record & compare time in terms of secs, mins, hrs and o'clock; use vocab such as am/pm, morning, afternoon, noon & midnight. Know the numbers of **seconds in a minute** & the number of **days each month, year & leap year**. **Compare durations** of events, for example to calculate time taken by particular events or tasks.	**Read, write & convert time** between analogue & digital 12- & 24-hour clocks. Solve problems involving **converting** from hours to minutes; minutes to seconds; years to months; weeks to days.	Solve problems involving **converting** between units of time.	

Geometry: properties of shapes						
Rec/ELG	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
Explore the characteristics of everyday objects and shapes and use mathematical language to describe them. ELG	Recognise & name **common 2D & 3D shapes**, including: - 2D, e.g. rectangles, squares, circles, triangles - 3D. e.g. cuboids, cubes, pyramids, spheres.	Identify & describe the **properties of 2D shapes**, incl the number of sides & symmetry in a vertical line. Identify & describe the **properties of 3D shapes**, incl the number of edges, vertices & faces. Identify **2D shapes on the surface of 3D shapes**. **Compare & sort** common 2D & 3D shapes & everyday objects.	**Draw 2D shapes** & make 3D shapes using modelling materials; recognise 3D shapes in different orientations; & describe them.	**Compare & classify** geometric shapes, incl quadrilaterals and triangles, based on their properties & sizes. Identify lines of **symmetry** in 2D shapes presented in different orientations. Complete a simple **symmetric figure** with respect to a specific line of symmetry.	**Identify 3D shapes**, including cubes & cuboids, from 2D representations. Use the **properties of rectangles to** deduce related facts & find missing lengths & angles. Distinguish between **regular & irregular polygons** based on reasoning about equal sides & angles.	**Draw 2D shapes** using given dimensions & angles. **Recognise, describe & build simple 3D shapes**, incl making nets. **Compare & classify** geometric shapes based on their properties & sizes & find unknown angles in any triangles, quadrilaterals, & regular polygons.
			Recognise **angles** are a property of shape or a description of a turn. Identify right **angles**, recognise that two right angles make a half-turn, three make three quarters & four a complete turn; identify whether angles are greater than or less than a right angle.	Identify acute & obtuse **angles** & compare & order angles up to two right angles by size.	Know **angles** are measures in degrees; estimate & compare acute, obtuse & reflex angles. Identify: - Angles at a point on a straight line & ½ a turn (total 180°) - Angles at a point & one whole turn (total 360°) - Other multiples of 90° Draw given angles, & measure them in degrees.	Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, & find missing angles.
			Identify **horizontal and vertical lines and pairs of perpendicular & parallel** lines.			
						Illustrate & name parts of circles, including radius, diameter & circumference & know that they diameter is twice the radius.

Geometry: position, direction, motion						
Rec/ELG	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
Recognise, create & describe patterns. ELG		**Order & arrange** combinations of mathematical objects in patterns.				
	Describe **position, directions & movements**, including half, quarter and three-quarter turns.	Use mathematical vocabulary to describe **position, direction & movement**, incl distinguishing between rotation as a turn & in terms of right angles for quarter, half and three-quarter turns (clockwise & anti-clockwise), and movement in a straight line.				
				Describe positions on a 2D grid as **coordinates in the first quadrant**.		Describe positions on the full coordinate grid (**all four quadrants**).
				Describe movements between positions as **translations** of a given unit to the left/right and up/down.		**Draw & translate simple shapes** on the coordinate plane, & reflect them in the axes.
				Plot specified points & draw sides to complete a given polygon.		
					Identify, describe & represent the position of a shape following a **reflection**, using the appropriate language, & know that the shape has not changed.	

Statistics						
Rec/ELG	**Y1**	**Y2**	**Y3**	**Y4**	**Y5**	**Y6**
		Interpret & construct simple: - **pictograms** - **tally charts** - **block diagrams** - **simple tables**	Interpret & present data using: - **bar charts** - **pictograms** - **tables**	Interpret & present discrete data using appropriate graphical methods, incl: - **bar charts** - **time graphs**	Complete, read & interpret information in: - **tables, incl timetables**	Interpret & construct: - **pie charts** - **line graphs** and use to solve problems.
		Ask & answers simple questions by counting the number of objects in each category & sorting the categories by quantity. **Ask & answer** questions about totalling and compare categorical data.	Solve one-**step & two-step questions** such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts & pictograms & tables.	Solve **comparison, sum & difference problems** using information presented in bar charts, pictograms, tables & other graphs.	Solve **comparison, sum & difference problems** using information presented in a line graph.	Calculate & interpret the **mean** as an average.

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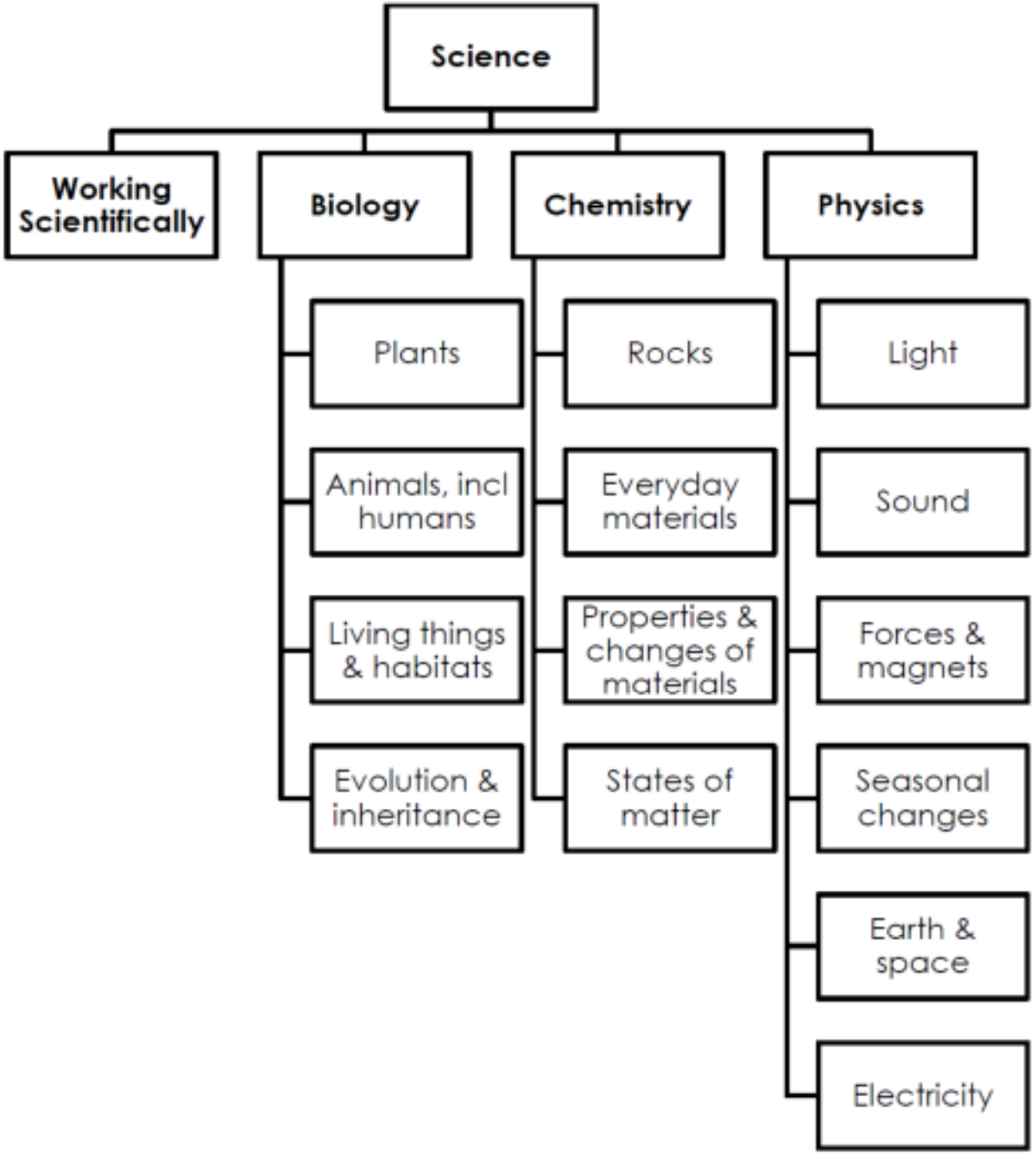

	Biology				Chemistry				Physics					
	Plants	Animals, including humans	Living things & habitats	Evolution & inheritance	Rocks	Everyday materials	Properties & changes of materials	States of matter	Light	Sound	Forces & magnets	Seasonal changes	Earth & space	Electricity
Yr 1	X	X				X			X			X		
Yr 2	X	X	X			X				X				
Yr 3	X	X			X				X		X			
Yr 4		X	X					X		X				X
Yr 5		X	X				X		X				X	
Yr 6		X	X	X										X

Unit:	Y1	Y2	Y3	Y4	Y5	Y6
Working scientifically (taught throughout each unit)	Yes	Yes	Yes	Yes	Yes	Yes

Years 1 and 2	Years 3 and 4	Years 5 and 6
Asking simple **questions** and recognising that they can be answered in different ways	Asking relevant **questions** and using different types of scientific enquiries to answer them	Planning different types of scientific enquiries to answer **questions**, including recognising and controlling variables where necessary
	Using straightforward **scientific evidence** to answer questions or to support their findings	Identifying **scientific evidence** that has been used to support or refute ideas or arguments
Observing closely, using simple equipment	Making systematic and careful **observations** and, where appropriate, taking accurate **measurements** using standard units, using a range of equipment, including thermometers and data loggers	Taking **measurements**, using a range of scientific equipment, with increasing accuracy and precision
Performing simple **tests**	Setting up simple practical **enquiries**, comparative and **fair tests**	
Identifying and **classifying**	**Identifying** differences, similarities or changes related to simple scientific ideas and processes.	Using simple **models** to describe scientific ideas
Using their observations and ideas to suggest answers to questions	**Using results** to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions	**Using test results** to make predictions to set up further comparative and fair tests
Gathering and **recording** data to help in answering questions	**Recording** findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	**Recording** data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs
	Gathering, recording, classifying and presenting **data** in a variety of ways to help in answering questions	
	Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions	**Reporting** and **presenting** findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations

Unit:	Y1	Y2	Y3	Y4	Y5	Y6
Plants	Yes	Yes	Yes	-	-	-

Year 1	Year 2	Year 3
▪ Identify and describe the basic **structure** of a variety of common flowering plants, including roots, stem/trunk, leaves and flowers. ▪ Identify and **name a variety of common plants**, including garden plants, wild plants and trees, and those classified as deciduous and evergreen.	▪ Find out and describe how **plants need** water, light and a suitable temperature to grow and stay healthy. ▪ Observe and describe **how seeds and bulbs grow** into mature plants.	▪ Identify and describe the **functions** of different parts of flowering plants: roots, stem, leaves and flowers. ▪ Explore the **part that flowers play** in the life cycle of a flowering plant, including pollination, seed formation and seed dispersal. ▪ Investigate the way in which **water is transported** within plants.

Unit:	Y1	Y2	Y3	Y4	Y5	Y6
Animals, including humans	Yes	Yes	Yes	Yes	Yes	Yes

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
▪ **Identify and name** a variety of common animals that are birds, fish, amphibians, reptiles, mammals and invertebrates. ▪ **Identify and name** a variety of common animals that are carnivores, herbivores and omnivores. ▪ Describe and compare the **structure** of a variety of common animals (birds, fish, amphibians, reptiles, mammals and invertebrates, and including pets).	▪ Notice that animals, including humans, have **offspring** which grow into adults. ▪ Find out about and describe the **basic needs of animals**, including humans, for survival (water, food and air).	▪ Identify that animals, including humans, need the right types and amount of **nutrition**, and that they cannot make their own food; they get nutrition from what they eat	▪ Construct and interpret a variety of **food chains**, identifying producers, predators and prey.		▪ Describe the ways in which **nutrients** and water are transported within animals, including humans.

▪ Identify, name, draw and label the basic parts of the **human body** and say which part of the body is associated with each sense.	▪ Describe the importance for **humans** of exercise, eating the right amounts of different types of food, and hygiene.	▪ Identify that **humans** and some animals have skeletons and muscles for support, protection and movement.	▪ Describe the simple functions of the basic parts of the **digestive system** in humans. ▪ Identify the different types of **teeth** in humans and their simple functions	▪ Describe the **changes as humans develop** from birth to old age.	▪ Identify and name the main parts of the **human circulatory system**, and explain the functions of the heart, blood vessels and blood. ▪ Recognise the **impact of diet, exercise, drugs and lifestyle** on the way their bodies function

Unit:	Y1	Y2	Y3	Y4	Y5	Y6
Living things and habitats	-	Yes	-	Yes	Yes	Yes

Year 2	Year 4	Year 5	Year 6
▪ Explore and compare the differences between things that are **living, dead, and things that have never been alive**. ▪ Identify that most living things live in **habitats** to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other. ▪ **Identify and name a variety of plants and animals** in their habitats, including micro-habitats. ▪ Describe **how animals obtain their food** from plants and other animals, using the idea of a simple **food chain**, and identify and name different sources of food.	▪ Recognise that **environments can change** and that this can sometimes pose dangers to living things. ▪ Identify and name a variety of living things (plants and animals) in the local and wider environment, using **classification keys** to assign them to groups.	▪ Explain the differences in the **life cycles** of a mammal, an amphibian, an insect and a bird. ▪ Describe the life process of **reproduction** in some plants and animals.	▪ Describe how living things are **classified** into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals. ▪ Give reasons for **classifying** plants and animals based on specific characteristics.

Unit:	Y1	Y2	Y3	Y4	Y5	Y6
Evolution and inheritance	-	-	-	-	-	Yes

Year 6

- Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.
- Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.
- Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.

Unit:	Y1	Y2	Y3	Y4	Y5	Y6
Rocks	-	-	Yes	-	-	-

Year 3

- Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.
- Describe in simple terms how fossils are formed when things that have lived are trapped within rock.
- Recognise that soils are made from rocks and organic matter.

Unit:	Y1	Y2	Y3	Y4	Y5	Y6
Everyday materials	Yes	Yes	-	-	-	-

Year 1	Year 2
▪ Distinguish between an **object and the material** from which it is made. ▪ **Identify and name** a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. ▪ Describe the simple **physical properties** of a variety of everyday materials. ▪ **Compare and group** together a variety of everyday materials on the basis of their simple physical properties. ▪ Find out how the shapes of solid objects made from some materials can be changed by **squashing, bending, twisting and stretching**.	▪ Identify and **compare the uses** of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard. ▪ Compare how things **move** on different surfaces.

Unit:	Y1	Y2	Y3	Y4	Y5	Y6
Properties and changes of materials	-	-	-	-	Yes	-

Year 5
▪ Compare and group together everyday materials based on evidence from comparative and fair tests, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. ▪ Understand that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. ▪ Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. ▪ Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. ▪ Demonstrate that dissolving, mixing and changes of state are reversible changes. ▪ Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.

Unit:	Y1	Y2	Y3	Y4	Y5	Y6
States of matter	-	-	-	Yes	-	-

Year 4

- Compare and group materials together, according to whether they are solids, liquids or gases.
- Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C).
- Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

Unit:	Y1	Y2	Y3	Y4	Y5	Y6
Light	Yes	-	Yes	-	Yes	-

Year 1	Year 3	Year 5
▪ Observe and name a variety of sources of light, including electric lights, flames and the Sun. ▪ Associate shadows with a light source being blocked by something.	▪ Notice that light is reflected from surfaces. ▪ Find patterns that determine the size of shadows.	▪ Understand that light appears to travel in straight lines. ▪ Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye. ▪ Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes. ▪ Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them, and to predict the size of shadows when the position of the light source changes.

Unit:	Y1	Y2	Y3	Y4	Y5	Y6
Sound	-	Yes	-	Yes	-	-

Year 2	Year 4
▪ Observe and name a variety of sources of sound, noticing that we hear with our ears. ▪ Recognise that sounds get fainter as the distance from the sound source increases.	▪ Identify how sounds are made, associating some of them with something vibrating. ▪ Find patterns between the pitch of a sound and features of the object that produced it. ▪ Find patterns between the volume of a sound and the strength of the vibrations that produced it.

Unit:	Y1	Y2	Y3	Y4	Y5	Y6
Forces and magnets	-	-	Yes	-	-	-

Year 3

- Notice that some forces need contact between two objects, but magnetic forces can act at a distance.
- Observe how magnets attract or repel each other and attract some materials and not others.
- Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials.
- Describe magnets as having two poles.
- Predict whether two magnets will attract or repel each other, depending on which poles are facing.

Unit:	Y1	Y2	Y3	Y4	Y5	Y6
Seasonal changes	Yes	-	-	-	-	-

Year 1

- Observe changes across the four seasons.
- Observe and describe weather associated with the seasons and how day length varies.

Unit:	Y1	Y2	Y3	Y4	Y5	Y6
Earth and space	-	-	-	-	Yes	-

Year 5

- Describe the movement of the Earth, and other planets, relative to the Sun in the solar system.
- Describe the movement of the Moon relative to the Earth.
- Describe the Sun, Earth and Moon as approximately spherical bodies.
- Use the idea of the Earth's rotation to explain day and night.

Unit:	Y1	Y2	Y3	Y4	Y5	Y6
Electricity	-	-	-	Yes	-	Yes

Year 4	Year 6
▪ Identify common appliances that run on electricity. ▪ Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. ▪ Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery. ▪ Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. ▪ Recognise some common conductors and insulators, and associate metals with being good conductors.	▪ Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. ▪ Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. ▪ Use recognised symbols when representing a simple circuit in a diagram.

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Art	
KS1	Pupils should be taught: ▪ to use a range of materials creatively to design and make products ▪ to use drawing, painting and sculpture to develop and share their ideas, experiences and imagination ▪ to develop a wide range of art and design techniques in using colour, pattern, texture, line, shape, form and space ▪ about the work of a range of artists, craft makers and designers, describing the differences and similarities between
KS2	Pupils should be taught to develop their techniques, including their control and their use of materials, with creativity, experimentation and an increasing awareness of different kinds of art, craft and design. Pupils should be taught: ▪ to create sketch books to record their observations and use them to review and revisit ideas ▪ to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials (e.g. pencil, charcoal, paint, clay) ▪ about great artists, architects and designers in history.

Computing	
KS1	Pupils should be taught to: ▪ understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions ▪ create and debug simple programs ▪ use logical reasoning to predict the behaviour of simple programs ▪ use technology purposefully to create, organise, store, manipulate and retrieve digital content ▪ use technology safely and respectfully, keeping personal information private; know where to go for help and support when they have concerns about material on the internet ▪ recognise common uses of information technology beyond school.
KS2	Pupils should be taught to: ▪ design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts ▪ use sequence, selection, and repetition in programs; work with variables and various forms of input and output ▪ use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs ▪ understand computer networks including the internet; how they can provide multiple services, such as the world-wide web; and the opportunities they offer for communication and collaboration ▪ use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content ▪ use technology safely, respectfully and responsibly; know a range of ways to report concerns and inappropriate behaviour ▪ select, use and combine a variety of software (including internet services) on a range of digital devices to accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

<table>
<tr><th colspan="5">Design and technology</th></tr>
<tr><td>KS1</td><td colspan="4">Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts, such as the home and school, gardens and playgrounds, the local community, industry and the wider environment. When designing and making, pupils should be taught to:</td></tr>
<tr><td></td><td><u>Design</u>
design purposeful, functional, appealing products for themselves and other users based on design criteria
generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</td><td><u>Make</u>
select from and use a range of tools and equipment to perform practical tasks such as cutting, shaping, joining and finishing
select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</td><td><u>Evaluate</u>
explore and evaluate a range of existing products
evaluate their ideas and products against design criteria</td><td><u>Technical knowledge</u>
build structures, exploring how they can be made stronger, stiffer and more stable
explore and use mechanisms, such as levers, sliders, wheels and axles, in their products</td></tr>
<tr><td></td><td colspan="4"><u>Cooking and nutrition</u>
use the basic principles of a healthy and varied diet to prepare dishes
understand where food comes from</td></tr>
</table>

<table>
<tr><td>KS2</td><td colspan="4">Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts, such as the home, school, leisure, culture, enterprise, industry and the wider environment. When designing and making, pupils should be taught to:</td></tr>
<tr><td></td><td>Design
use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups
generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</td><td>Make
select from and use a wider range of tools and equipment to perform practical tasks, such as cutting, shaping, joining and finishing, accurately
select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities</td><td>Evaluate
investigate and analyse a range of existing products
evaluate their ideas and products against their own design criteria and consider the views of others to improve their work
understand how key events and individuals in design and technology have helped shape the world</td><td>Technical knowledge
apply their understanding of how to strengthen, stiffen and reinforce more complex structures
understand and use mechanical systems in their products, such as gears, pulleys, cams, levers and linkages
understand and use electrical systems in their products, such as series circuits incorporating switches, bulbs, buzzers and motors
apply their understanding of computing to programme, monitor and control their products.</td></tr>
<tr><td></td><td colspan="4">Cooking and nutrition
understand and apply the principles of a healthy and varied diet
prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.</td></tr>
</table>

Geography				
KS1	Pupils should develop knowledge about the world, the United Kingdom and their locality. They should understand basic subject-specific vocabulary relating to human and physical geography and begin to use geographical skills, including first-hand observation, to enhance their locational awareness. Pupils should be taught to:			
	<u>Location knowledge</u> ▪ name and locate the world's seven continents and five oceans ▪ name, locate and identify characteristics of the four countries and capital cities of the United Kingdom and its surrounding seas	<u>Place knowledge</u> ▪ understand geographical similarities and differences through studying the human and physical geography of a small area of the United Kingdom, and of a small area in a contrasting non-European country	<u>Human and physical geography</u> ▪ identify seasonal and daily weather patterns in the United Kingdom and the location of hot and cold areas of the world in relation to the Equator and the North and South Poles ▪ use basic geographical vocabulary to refer to: o key physical features, including: beach, cliff, coast, forest, hill, mountain, sea, ocean, river, soil, valley, vegetation, season and weather o key human features, including: city, town, village, factory, farm, house, office, port, harbour and shop	<u>Geographical skills and fieldwork</u> ▪ use world maps, atlases and globes to identify the United Kingdom and its countries, as well as the countries, continents and oceans studied at this key stage ▪ use simple compass directions (North, South, East and West) and locational and directional language (e.g. near and far; left and right) to describe the location of features and routes on a map ▪ use aerial photographs and plan perspectives to recognise landmarks and basic human and physical features; devise a simple map; and use and construct basic symbols in a key ▪ use simple fieldwork and observational skills to study the geography of their school and its grounds and the key human and physical features of its surrounding environment

Geography				
KS2	Pupils should extend their knowledge and understanding beyond the local area to include the United Kingdom and Europe, North and South America. This will include the location and characteristics of a range of the world's most significant human and physical features. They should develop their use of geographical tools and skills to enhance their locational and place knowledge. Pupils should be taught to:			
	<u>Location knowledge</u> ▪ locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities ▪ name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time ▪ identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night)	<u>Place knowledge</u> ▪ understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region within North or South America	<u>Human and physical geography</u> ▪ describe and understand key aspects of: o physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle o human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water	<u>Geographical skills and fieldwork</u> ▪ use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied ▪ use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world ▪ use fieldwork to observe, measure and record the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies

History	
KS1	Pupils should develop an awareness of the past, using common words and phrases relating to the passing of time. They should know where the people and events they study fit within a chronological framework and identify similarities and differences between ways of life in different periods. They should use a wide vocabulary of everyday historical terms. They should ask and answer questions, choosing and using parts of stories and other sources to show that they know and understand key features of events. They should understand some of the ways in which we find out about the past and identify different ways in which it is represented. In planning to ensure the progression described above through teaching about the people, events and changes outlined below, teachers are often introducing pupils to historical periods that they will study more fully at key stages 2 and 3. Pupils should be taught about: ▪ changes within living memory. Where appropriate, these should be used to reveal aspects of change in national life ▪ events beyond living memory that are significant nationally or globally (e.g. the Great Fire of London, the first aeroplane flight or events commemorated through festivals or anniversaries) ▪ the lives of significant individuals in the past who have contributed to national and international achievements. Some should be used to compare aspects of life in different periods (e.g. Elizabeth I and Queen Victoria, Christopher Columbus and Neil Armstrong, William Caxton and Tim Berners-Lee, Pieter Bruegel the Elder and LS Lowry, Rosa Parks and Emily Davison, Mary Seacole and Edith Cavell) ▪ significant historical events, people and places in their own locality

<table>
<tr><th colspan="4">History</th></tr>
<tr><td>KS2</td><td colspan="3">Pupils should continue to develop a chronologically secure knowledge and understanding of British, local and world history, establishing clear narratives within and across the periods they study. They should note connections, contrasts and trends over time and develop the appropriate use of historical terms. They should regularly address and sometimes devise historically valid questions about change, cause, similarity and difference, and significance. They should construct informed responses that involve thoughtful selection and organisation of relevant historical information. They should understand how our knowledge of the past is constructed from a range of sources and that different versions of past events may exist, giving some reasons for this. In planning to ensure the progression described above through teaching the British, local and world history outlined below, teachers should combine overview and depth studies to help pupils understand both the long arc of development and the complexity of specific aspects of the content. Pupils should be taught about:</td></tr>
<tr><td></td><td>Changes in Britain from the Stone Age to the Iron Age. This could include:
late Neolithic hunter-gatherers and early farmers, e.g. Skara Brae
Bronze Age religion, technology and travel, e.g. Stonehenge
Ilron Age hill forts: tribal kingdoms, farming, art and culture</td><td>The Roman Empire and its impact on Britain.
This could include:
Julius Caesar's attempted invasion in 55-54 BC
the Roman Empire by AD 42 and the power of its army
successful invasion by Claudius and conquest, including Hadrian's Wall
British resistance, e.g. Boudica
"Romanisation" of Britain: sites such as Caerwent and the impact of technology, culture and beliefs, including early Christianity</td><td>Britain's settlement by Anglo-Saxons and Scots. This could include:
Roman withdrawal from Britain in c. AD 410 and the fall of the western Roman Empire
Scots invasions from Ireland to north Britain (now Scotland)
Anglo-Saxon invasions, settlements and kingdoms: place names and village life
Anglo-Saxon art and culture
Christian conversion – Canterbury, Iona and Lindisfarne</td></tr>
<tr><td></td><td>The Viking and Anglo-Saxon struggle for the Kingdom of England to the time of Edward the Confessor. This could include:
Viking raids and invasion
resistance by Alfred the Great and Athelstan, first king of England
further Viking invasions and Danegeld
Anglo-Saxon laws and justice
Edward the Confessor and his death in 1066</td><td>A local history study.
For example:
a depth study linked to one of the British areas of study listed above
a study over time tracing how several aspects national history are reflected in the locality (this can go beyond 1066)
a study of an aspect of history or a site dating from a period beyond 1066 that is significant in the locality.</td><td>A study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066. For example:
the changing power of monarchs using case studies such as John, Anne and Victoria
changes in an aspect of social history, such as crime and punishment from the Anglo-Saxons to the present or leisure and entertainment in the 20th Century
the legacy of Greek or Roman culture (art, architecture or literature) on later periods in British history, including the present day
a significant turning point in British history, e.g. the first railways or the Battle of Britain</td></tr>
<tr><td></td><td>The achievements of the earliest civilizations – an overview of where and when the first civilizations appeared and a depth study of one of the following: Ancient Sumer; The Indus Valley; Ancient Egypt; The Shang Dynasty of Ancient China</td><td>Ancient Greece – a study of Greek life and achievements and their influence on the western world</td><td>A non-European society that provides contrasts with British history - one study chosen from: early Islamic civilization, including a study of Baghdad c. AD 900; Mayan civilization c. AD 900; Benin (West Africa) c. AD 900-1300.</td></tr>
</table>

Languages	
KS2	Teaching may be of any modern or ancient foreign language and should focus on enabling pupils to make substantial progress in one language. The teaching should provide an appropriate balance of spoken and written language and should lay the foundations for further foreign language teaching at key stage 3. It should enable pupils to understand and communicate ideas, facts and feelings in speech and writing, focused on familiar and routine matters, using their knowledge of phonology, grammatical structures and vocabulary. The focus of study in modern languages will be on practical communication. If an ancient language is chosen the focus will be to provide a linguistic foundation for reading comprehension and an appreciation of classical civilisation. Pupils studying ancient languages may take part in simple oral exchanges, while discussion of what they read will be conducted in English. A linguistic foundation in ancient languages may support the study of modern languages at key stage 3. Pupils should be taught to: ▪ listen attentively to spoken language and show understanding by joining in and responding ▪ explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words ▪ engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help* ▪ speak in sentences, using familiar vocabulary, phrases and basic language structures ▪ develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases* ▪ present ideas and information orally to a range of audiences* ▪ read carefully and show understanding of words, phrases and simple writing ▪ appreciate stories, songs, poems and rhymes in the language ▪ broaden their vocabulary and develop their ability to understand new words that are introduced into familiar written material, including through using a dictionary ▪ write phrases from memory, and adapt these to create new sentences, to express ideas clearly ▪ describe people, places, things and actions orally* and in writing ▪ understand basic grammar appropriate to the language being studied, including (where relevant): feminine, masculine and neuter forms and the conjugation of high-frequency verbs; key features and patterns of the language; how to apply these, for instance, to build sentences; and how these differ from or are similar to English The starred (*) content above will not be applicable to ancient language

Music	
KS1	Pupils should be taught to: ▪ use their voices expressively and creatively by singing songs and speaking chants and rhymes ▪ play tuned and untuned instruments musically ▪ listen with concentration and understanding to a range of high-quality live and recorded music ▪ experiment with, create, select and combine sounds using the inter-related dimensions of music
KS2	Pupils should be taught to sing and play musically with increasing confidence and control. They should develop an understanding of musical composition, organising and manipulating ideas within musical structures and reproducing sounds from aural memory. Pupils should be taught to: ▪ play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression ▪ improvise and compose music for a range of purposes using the inter-related dimensions of music ▪ listen with attention to detail and recall sounds with increasing aural memory ▪ use and understand staff and other musical notations ▪ appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians ▪ develop an understanding of the history of music

Physical education	
KS1	Pupils should develop fundamental movement skills, become increasingly competent and confident and access a broad range of opportunities to extend their agility, balance and coordination, individually and with others. They should be able to engage in competitive (both against self and against others) and co-operative physical activities, in a range of increasingly challenging situations. Pupils should be taught to: ▪ master basic movements including running, jumping, throwing and catching, as well as developing balance, agility and co-ordination, and begin to apply these in a range of activities ▪ participate in team games, developing simple tactics for attacking and defending ▪ perform dances using simple movement patterns
KS2	Pupils should continue to apply and develop a broader range of skills, learning how to use them in different ways and to link them to make actions and sequences of movement. They should enjoy communicating, collaborating and competing with each other. They should develop an understanding of how to improve in different physical activities and sports and learn how to evaluate and recognise their own success. Pupils should be taught to: ▪ use running, jumping, throwing and catching in isolation and in combination ▪ play competitive games, modified where appropriate, such as badminton, basketball, cricket, football, hockey, netball, rounders and tennis, and apply basic principles suitable for attacking and defending ▪ develop flexibility, strength, technique, control and balance, for example through athletics and gymnastics ▪ perform dances using a range of movement patterns ▪ take part in outdoor and adventurous activity challenges both individually and within a team ▪ compare their performances with previous ones and demonstrate improvement to achieve their personal best
Swim	<u>Swimming and water safety</u> All schools must provide swimming instruction either in key stage 1 or key stage 2. In particular, pupils should be taught to: ▪ swim competently, confidently and proficiently over a distance of at least 25 metres ▪ use a range of strokes effectively such as front crawl, backstroke and breaststroke ▪ perform safe self-rescue in different water-based situations.