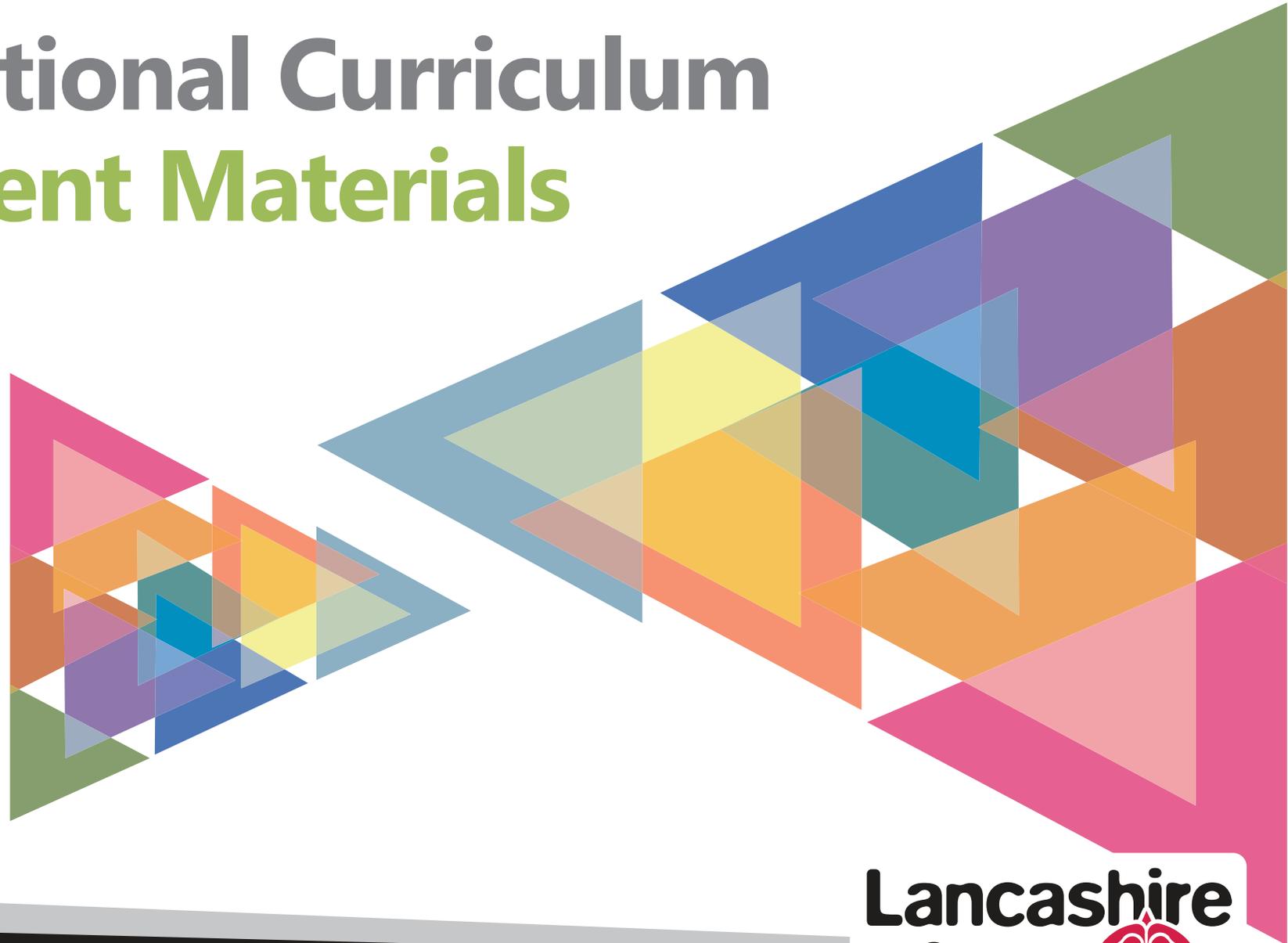# LPDS National Curriculum Assessment Materials

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LPDS National Curriculum Assessment Materials
Overview of the Materials

Written by the Lancashire Professional Development Service (LPDS) Teaching and Learning Consultants, these assessment materials are directly linked to the expectations of National Curriculum 2014 and will enable class teachers and senior leaders to track the progress and attainment of children against 'Key Learning Indicators of Performance' (KLIPs) in Reading, Writing and Mathematics, 'Scientific Knowledge and Conceptual Understanding and Working Scientifically Skills' in Science and against 'End of Year Expectations' in the Foundation Subjects.

These materials have been written to inform planning and support high quality teaching and learning across the primary phase whilst at the same time providing a simple and time effective method of assessing the learning of children from Years 1 to 6 in Reading, Writing, Mathematics, Science and the Foundation Subjects.

These materials are compatible with the Lancashire Electronic Tracking tool and include:

Core Subjects

▶ English: Reading and Writing Key Learning Indicators of Performance (KLIPs)
▶ Mathematics: Key Learning Indicators of Performance (KLIPs)
▶ Science: Scientific Knowledge and Conceptual Understanding and Working Scientifically Skills

Foundation Subjects - End of Year Expectations

▶ Art and Design
▶ Computing
▶ Design and Technology
▶ Geography
▶ History
▶ Languages (KS2)
▶ Music
▶ Physical Education

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LPDS National Curriculum Assessment Materials
Guidance for Using KLIPs: English

These materials have been written by Lancashire Professional Development Service (LPDS) Teaching and Learning Consultants for Primary English in conjunction with the aims and statutory requirements set out in the National Curriculum 2014.

What are the KLIPs?

The KLIPs, or **Key Learning Indicators of Performance**, have been developed from Lancashire's National Curriculum Support Materials, which detail the key learning in reading and writing for each year group. These key learning grids for each year group can be used to provide:

▶ detailed assessment information for the teacher to use to inform their future planning of next steps (formative);

▶ overall judgements which can be made more summatively (for example once a term), to enable senior leadership teams to track progress across the school, during the year. This will assist schools with self-evaluation and in informing discussions with others e.g. inspection teams, about attainment and progress;

▶ a means of informing parents about attainment and progress.

The underlined statements on the grids have been identified as **Key Learning Indicators of Performance** (KLIPs) as these have the greatest impact on the further development of skills and subsequent learning. Consequently, the **Key Learning Indicators of Performance** (KLIPs) play a particularly significant role in the assessment process.

How Do I Use KLIPs to Support Assessment in English?

The KLIPs approach is intended to be used for periodic assessment, in other words 'stepping back', perhaps termly, and asking the question 'How is this pupil performing in reading?' or 'How is this pupil performing in writing?'

The Process

▶ Consider the pupil's performance in relation to **all** of the key learning statements not just the KLIPs (the ones which have been underlined).

▶ Make a professional judgement as to whether the expectations have been achieved, highlighting statements, or partial statements to record judgements. If statements are highlighted termly, consider using different coloured highlighters each term to indicate where progress has been made.

▶ A child does not need to demonstrate an aspect of key learning a specific number of times for them to be assessed as having achieved it. However, they would be expected to **demonstrate and apply** the skill or knowledge **independently in different subjects or contexts**.

▶ When assessing writing, consider a range of evidence including narrative writing, non-fiction and pieces completed in other subjects. Think about the child as a writer; how effective is his/her writing in relation to its purpose and audience? Avoid merely 'spotting techniques' used, or using the key learning grid as a checklist.

▶ Assessing reading involves examining pupils' competence in both word reading and comprehension. Rich opportunities to gather evidence include guided reading sessions, phonics sessions, shared reading, drama, and use of reading journals. Look out also for wider opportunities to gather evidence such as reading in other subjects, class assemblies and personal reading. Texts need to be suitable for the age-related grid which is being used. For example, if a Year Three key learning grid is being used, texts would need to be Year Three appropriate.

▶ Assessment information, highlighted on the grids, should be used to inform the teacher's planning so that gaps and next steps can be addressed.

Making a Summative Judgement Using the KLIPs Approach

▶ Make a judgement about the child's current position in learning, based on a balance of strengths and aspects that need further learning opportunities. Consider whether the child is 'on track' to achieve the year group expectations by the end of the academic year.

▶ The three definitions used here are offered as guidance to teachers making 'best fit' judgements, at the end of each term:

   o **Entering** - starting to demonstrate some of the features of this year group's expectations (although these may not yet be evident in independent writing). Typically what would be expected if a child was on track at the end of the autumn term in a particular year group (e.g. a child typically working at what you would expect, at end of autumn term Y3, would be 'entering, Y3').

   o **Developing** – demonstrating more of the features of this year group's expectations. Some learning in some aspects might not be fully embedded across all situations. Typically what would be expected if a child was on track at the end of the spring term in a particular year group (e.g. a child typically working at what you would expect, at end of spring term Y3, would be 'developing, Y3').

   o **Secure** - demonstrating most (or indeed all) of the features of this year group's expectations. To attain a secure judgement, the child must have achieved all of the **key learning indicators of performance** (KLIPS, underlined statements) unless they have a specific learning difficulty that prevents them from doing so. Their typical knowledge/understanding/skill demonstrated is behaviour which is **embedded**. Typically what would be expected if a child was on track at the end of the summer term in a particular year group (e.g. a child typically working at what you would expect for a typical child at the end of Y3, would be 'secure, Y3').

▶ There are no set percentages or numbers of statements which need to be highlighted in order to determine whether a child is entering, developing or secure in relation to a particular age group expectation. Profiles of children judged to be 'developing' for instance could be very different.

English
Key Learning Indicators of Performance in Reading: Year 1

Word Reading	Comprehension
As above and:	As above and:

Word Reading

As above and:

- Read aloud accurately books that are consistent with their developing phonic knowledge.
- Apply phonic knowledge and skills as the route to decode words.
- Respond speedily with the correct sound to grapheme for the 44 phonemes.
- Recognise and use the different ways of pronouncing the same grapheme; e.g. *ow* in *snow* and *cow.*
- Read accurately by blending sounds in unfamiliar words.
- Read common exception words, noting tricky parts (see below).
- Read words containing *–s, -es, -ing, -ed, -er, -est* endings.
- Split two and three syllable words into the separate syllables to support blending for reading.
- Read words with contractions e.g. *I'm, I'll, we'll* and understand that the apostrophe represents the omitted letter.
- Develop fluency, accuracy and confidence by re-reading books.
- Read more challenging texts using phonics and common exception word recognition.

Comprehension

As above and:

Developing pleasure in reading and motivation to read
- Listen to and discuss a range of texts at a level beyond that at which they can read independently, including stories, non-fiction and poems.
- Relate texts to own experiences.
- Recognise and join in with language patterns and repetition.
- Use patterns and repetition to support oral retelling, e.g. fairy stories, traditional tales and stories by well-known authors.
- Orally retell familiar stories in a range of contexts e.g. *small world, role play, storytelling.*
- Enjoy and recite rhymes and poems by heart.
- Make personal reading choices and explain reasons for choices.

Understanding books which they can read themselves and those which are read to them
- Introduce and discuss key vocabulary, linking meanings of new words to those already known.
- Activate prior knowledge e.g. *what do you know about minibeasts?*
- Check that texts make sense while reading and self-correct.
- Develop and demonstrate their understanding of characters and events through role play and drama, drawing on language from the text.
- Give opinions and support with reasons e.g. *I like the Little Red Hen because she…*
- Explain clearly their understanding of what is read to them.
- Demonstrate understanding of texts by answering questions related to who, what, where, when, why, how.
- Identify and discuss the main events in stories.
- Identify and discuss the main characters in stories.
- Recall specific information in fiction and non-fiction texts.
- Locate parts of text that give particular information, e.g. *titles, contents page and labelled diagram.*
- Discuss the title and how it relates to the events in the whole story e.g. *Peace at Last by Jill Murphy.*
- Make basic inferences about what is being said and done.
- Make predictions based on what has been read so far.

Participating in discussion
- Listen to what others say.
- Take turns.

Word Reading	Comprehension
As above and: ▶ Read aloud books closely matched to their improving phonic knowledge, sounding out unfamiliar words accurately, automatically and without undue hesitation. ▶ Re-read books to build up fluency and confidence in word reading. ▶ Read frequently encountered words quickly and accurately without overt sounding and blending. ▶ Read accurately by blending the sounds in words, especially recognising alternative sounds for graphemes. ▶ Read accurately words of two or more syllables that contain alternative sounds for grapheme e.g. *shoulder, roundabout, grouping.* ▶ Read longer and less familiar texts independently. ▶ Apply phonic knowledge and skills to read words until automatic decoding has become embedded and reading is fluent. ▶ Work out unfamiliar words by focusing on all letters in the word, e.g. not reading *place* for *palace*. ▶ Read words containing common suffixes e.g. *–ness, -ment, -ful, -less -ly, -ing, -ed, -er, -est, -y.* ▶ Read further common exception words, noting tricky parts (see below).	As above and: **Developing pleasure in reading and motivation to read** ▶ Listen, discuss and express views about a range of texts at a level beyond that at which they can read independently, including stories, non-fiction, and contemporary and classic poetry. ▶ Orally retell a wider range of stories, fairy tales and traditional tales. ▶ Sequence and discuss the main events in stories and recounts. ▶ Read a range of non-fiction texts which are structured in different ways, including information, explanations, instructions, recounts, reports. ▶ Recognise the use of repetitive language within a text or poem (e.g. *run, run as fast as you can*) and across texts (*e.g. long, long ago in a land far away*...). ▶ Learn and recite a range of poems using appropriate intonation. ▶ Make personal reading choices and explain reasons for choices. **Understanding books which they can read themselves and those which are read to them** ▶ Identify, discuss and collect favourite words and phrases. ▶ Introduce and discuss words within the context of a text, linking new meanings to known vocabulary. ▶ Use morphology to work out the meaning of unfamiliar words e.g. *terror, terrorised.* ▶ Uses tone and intonation when reading aloud. ▶ Activate prior knowledge and raise questions e.g. *What do we know? What do we want to know? What have we learned?* ▶ Check that texts make sense while reading and self-correct. ▶ Demonstrate understanding of fiction and non-fiction texts by asking and answering *who, what, where, when, why, how* questions. ▶ Explain and discuss their understanding, giving opinions and supporting with reasons e.g. *Hansel was clever when he put stones in his pocket because...* ▶ Develop and demonstrate their understanding of characters and events through role play and drama, drawing on language from the text. ▶ Make inferences about characters and events using evidence from the text e.g. *what is the character thinking, saying and feeling?* ▶ Make predictions based on what has been read so far. ▶ Identify how specific information is organised within a non-fiction text e.g. *sub-headings, contents, bullet points, glossary, diagrams.* ▶ Locate information from non-fiction texts using the contents page, index, labelled diagrams and charts. **Participating in discussion** ▶ Participate in discussion about what is read to them, taking turns and listening to what others say. ▶ Make contributions in whole class and group discussion. ▶ Consider other points of view. ▶ Listen and respond to contributions from others.

Word Reading	Comprehension
As above and: ▶ Read books at an age appropriate interest level. ▶ Use knowledge of root words to understand meanings of words. ▶ Use prefixes to understand meanings e.g. *un-, dis-, mis-, re-, pre-, im-, in-*. ▶ Use suffixes to understand meanings e.g. *-ly, -ous.* ▶ Read and understand words from the Year 3 list (selected from the statutory Year 3/4 word list) - see below.	As above and: **Developing pleasure in reading and motivation to read** ▶ Listen to and discuss a range of fiction, poetry, plays and non-fiction, e.g. *fables, fairy tales, classic poetry, shape poetry, non-chronological reports, explanations.* ▶ Regularly listen to whole novels read aloud by the teacher. ▶ Read a range of non-fiction texts, e.g. *information, discussion, explanation, biography* and *persuasion.* ▶ Read books and texts for a range of purposes e.g. *enjoyment, research, skills development, reference.* ▶ Recognise some different forms of poetry e.g. *narrative, calligrams, shape poems.* ▶ Sequence and discuss the main events in stories. ▶ Orally retell a range of stories, including less familiar fairy stories, fables and folk tales e.g. *Grimm's Fairy Tales.* ▶ Identify and discuss themes e.g. *good over evil, weak and strong, wise and foolish, mean and generous, rich and poor.* ▶ Identify and discuss conventions e.g. *numbers three and seven in fairy tales, magical sentence repeated several times.* ▶ Prepare poems and play scripts to read aloud, showing understanding through intonation, tone, volume and action. **Understanding the text** ▶ Identify, discuss and collect favourite words and phrases which capture the reader's interest and imagination. ▶ Explain the meaning of unfamiliar words by using the context. ▶ Use dictionaries to check meanings of words they have read. ▶ Use intonation, tone and volume when reading aloud. ▶ Take note of punctuation when reading aloud. ▶ Discuss their understanding of the text. ▶ Raise questions during the reading process to deepen understanding e.g. *I wonder why the character.* ▶ Draw inferences around characters thoughts, feelings and actions, and justify with evidence from the text. ▶ Make predictions based on details stated. ▶ Justify responses to the text using the PE prompt (**P**oint + **E**vidence). ▶ Discuss the purpose of paragraphs. ▶ Identify a key idea in a paragraph. ▶ Analyse and evaluate texts looking at language, structure and presentation e.g. *persuasive letter, diary and calligram* etc. **Retrieving and recording information from non-fiction** ▶ Prepare for research by identifying what is already known about the subject and key questions to structure the task. ▶ Evaluate how specific information is organised within a non-fiction text e.g. *text boxes, contents, bullet points, glossary, diagrams.* ▶ Quickly appraise a text to evaluate usefulness. ▶ Navigate texts in print and on screen. ▶ Record information from a range of non-fiction texts. **Participating in discussion** ▶ Participate in discussion about what is read to them and books they have read independently. ▶ Develop and agree on rules for effective discussion. ▶ Take turns and listen to what others say. ▶ Make and respond to contributions in a variety of group situations e.g. *whole class, pairs, guided groups, book circles.*

Word Reading	Comprehension
As above and: ▶ Read books at an age appropriate interest level. ▶ Use knowledge of root words to understand meanings of words. ▶ Use prefixes to understand meanings e.g. *in- , ir–, sub–, inter–super–, anti–, auto–*. ▶ Use suffixes to understand meanings e.g. –ation, - tion, –ssion, –cian, -sion. ▶ Read and understand words from the Year 4 list (selected from the statutory Year 3/4 word list - see below.	As above and: **Developing pleasure in reading and motivation to read** ▶ Listen to, read and discuss a range of fiction, poetry, plays and non-fiction in different forms e.g. *fairy tales, folk tales, classic poetry, kennings, advertisements, formal speeches, magazines, electronic texts.* ▶ Regularly listen to whole novels read aloud by the teacher. ▶ Read books and texts, which are structured in different ways, for a range of purposes and respond in a variety of ways. ▶ Learn a range of poems by heart and rehearse for performance. ▶ Prepare poems and play scripts to read aloud, showing understanding through intonation, tone, volume and action. ▶ Orally retell a range of stories, including less familiar fairy stories, myths and legends. **Understanding the text** ▶ Identify, discuss and collect effective words and phrases which capture the reader's interest and imagination e.g. *metaphors, similes.* ▶ Explain the meaning of key vocabulary within the context of the text. ▶ Use dictionaries to check meanings of words in the texts that they read. ▶ Use punctuation to determine intonation and expression when reading aloud to a range of audiences. ▶ Make predictions based on information stated and implied. ▶ Demonstrate active reading strategies e.g. generating questions, finding answers, refining thinking, modifying questions, constructing images. ▶ Justify responses to the text using the PE prompt (**P**oint + **E**vidence). ▶ Identify, analyse and discuss themes e.g. *safe and dangerous, just and unjust, origins of the earth, its people and animals.* ▶ Draw inferences around characters' thoughts, feelings, actions and motives, and justify with evidence from the text using point and evidence. ▶ Identify main ideas drawn from more than one paragraph and summarise these *e.g. character is evil because...1/2/3 reasons, Clitheroe Castle is a worthwhile place to visit because 1/2/3 reasons across a text.* ▶ Analyse and evaluate texts looking at language, structure and presentation and how these contribute to meaning. ▶ Recognise and analyse different forms of poetry e.g. *haiku, limericks, kennings.* **Retrieving and recording information from non-fiction** ▶ Prepare for research by identifying what is already known about the subject and key questions to structure the task. ▶ Navigate texts ,e.g. using contents and index pages, in order to locate and retrieve information in print and on screen. ▶ Record information from a range of non-fiction texts. ▶ Scan for dates, numbers and names. ▶ Analyse and evaluate how specific information is organised within a non-fiction text e.g. *text boxes, sub-headings, contents, bullet points, glossary, diagrams.* ▶ Explain how paragraphs are used to order or build up ideas, and how they are linked. **Participating in discussion** ▶ Participate in discussion about what is read to them and books they have read independently, taking turns and listening to what others say. ▶ Develop, agree on and evaluate rules for effective discussion. ▶ Make and respond to contributions in a variety of group situations e.g. *whole class, independent reading groups, book circles.*

Word Reading	Comprehension
As above and: ▶ Read books at an age appropriate interest level. ▶ Use knowledge of root words to understand meanings of words. ▶ Apply knowledge of prefixes to understand meaning of new words, e.g. *dis-, re-, pre-, mis-, over-*. ▶ Use suffixes to understand meanings e.g. *-ant, -ance, -ancy, -ent, ence, -ency, -ible, -able, -ibly, -ably*. ▶ Read and understand words from the Year 5 list (selected from the statutory Year 5/6 word list) - see below	As above and: **Maintaining positive attitudes to reading** ▶ Listen to and discuss a range of fiction, poetry and non-fiction which they might not choose to read themselves. ▶ Regularly listen to whole novels read aloud by the teacher from an increasing range of authors. ▶ Explore themes within and across texts e.g. *loss, heroism, friendship*. ▶ Make comparisons within a text e.g. characters' viewpoints of same events. ▶ Recommend books to their peers with reasons for choices. ▶ Read books and texts that are structured in different ways for a range of purposes. ▶ Express preferences about a wider range of books including modern fiction, traditional stories, myths and legends. ▶ Learn a wider range of poems by heart. ▶ Prepare poems and play scripts to read aloud and perform, showing understanding through intonation, tone, volume and action so the meaning is clear to an audience. **Understanding texts they read independently and those which are read to them** ▶ Explain the meaning of words within the context of the text. ▶ Use punctuation to determine intonation and expression when reading aloud to a range of audiences. ▶ Check that the book makes sense to them and demonstrate understanding e.g. *through discussion, use of reading journals.* ▶ Demonstrate active reading strategies e.g. *generating questions to refine thinking, noting thoughts in a reading journal.* ▶ Infer characters' feelings, thoughts and motives from their actions and justify inferences with evidence. ▶ Predict what might happen from information stated and implied. ▶ Through close reading of the text, re-read and read ahead to locate clues to support understanding. ▶ Scan for key words and text mark to locate key information. ▶ Summarise main ideas drawn from more than one paragraph and identify key details which support this. ▶ Justify opinions and elaborate by referring to the text, e.g. using the PEE prompt - **P**oint + **E**vidence + **E**xplanation. ▶ Analyse the conventions of different types of writing e.g. *use of first person in autobiographies and diaries.* ▶ Identify how language, structure and presentation contribute to meaning e.g. *formal letter, informal diary, persuasive speech.* **Evaluating the impact of the author's use of language** ▶ Explore, recognise and use the terms metaphor, simile, imagery. ▶ Explain the effect on the reader of the authors' choice of language. ▶ Distinguish between statements of fact or opinion within a text. **Participating in discussion and debate** ▶ Participate in discussions about books that are read to them and those they can read for themselves, building on their own and others ideas and challenging views courteously. ▶ Explain and discuss their understanding of what they have read, including through formal presentations and debates. ▶ Prepare formal presentations individually or in groups. ▶ Use notes to support presentation of information. ▶ Respond to questions generated by a presentation. ▶ Participate in debates on an issue related to reading (fiction or non-fiction).

Word Reading	Comprehension
As above and: ▶ Read books at an age appropriate interest level. ▶ Work out unfamiliar words by focusing on all letters in the word, *e.g.* not reading *invitation* for *imitation*. ▶ Use knowledge of root words, prefixes and suffixes to investigate how the meanings of words change e.g. *un+happy+ness, dis+repute+able, dis+respect+ful, re+engage+ment.* ▶ Use suffixes to understand meanings e.g. *–cious, -tious, -tial, -cial.* ▶ Read and understand words from the Year 6 list (selected from the statutory Year 5/6 word list) - see below. ▶ Use etymology to help the pronunciation of new words e.g. *chef, chalet, machine, brochure – French in origin.*	As above and: **Maintaining positive attitudes to reading** ▶ Listen to, read and discuss an increasingly wide range of fiction, poetry, plays and non-fiction. ▶ Regularly listen to novels read aloud by the teacher from an increasing range of authors, which they may not choose themselves. ▶ Independently read longer texts with sustained stamina and interest. ▶ Recommend books to their peers with detailed reasons for their opinions. ▶ Express preferences about a wider range of books including modern fiction, traditional stories, fiction from our literary heritage and books from other cultures. ▶ Learn a wider range of poems by heart. ▶ Prepare poems and play scripts to read aloud and perform using dramatic effects. **Understanding texts they read independently and those which are read to them** ▶ Explain the meaning of new vocabulary within the context of the text. ▶ Demonstrate active reading strategies e.g. *challenging peers with questions, justifying opinions, responding to different viewpoints within a group.* ▶ Use a reading journal to record on-going reflections and responses to personal reading. ▶ Explore texts in groups and deepen comprehension through discussion. ▶ Provide reasoned justifications for their views. ▶ Justify opinions and elaborate by referring to the text e.g. using the PEE prompt – **P**oint+**E**vidence+**E**xplanation. ▶ Infer characters' feelings, thoughts and motives from their actions, justifying inferences with evidence e.g. **P**oint+**E**vidence+**E**xplanation. ▶ Predict what might happen from information stated and implied. ▶ Through close reading, re-read and read ahead to locate clues to support understanding and justify with evidence from the text. ▶ Make comparisons within and across texts e.g. similar events in different books such as being an evacuee in Carrie's War and Goodnight Mr Tom. ▶ Compare characters within and across texts. ▶ Compare texts written in different periods. ▶ Recognise themes within and across texts e.g. *hope, peace, fortune, survival.* ▶ Distinguish between statements of fact or opinion across a range of texts e.g. first-hand account of an event compared with a reported example such as Samuel Pepys' diary and a history textbook. ▶ Skim for gist. ▶ Scan for key information e.g. *identify words and phrases which tell you the character is frustrated,* or *find words/phrases which suggest that a theme park is exciting.* ▶ Use a combination of skimming, scanning and close reading across a text to locate specific detail. ▶ Retrieve, record, make notes and present information from non-fiction, including texts used in other subjects. ▶ Analyse the conventions of different types of writing e.g. *use of dialogue to indicate geographical and/or historical settings for a story.* ▶ Identify how language, structure and presentation contribute to meaning e.g. *persuasive leaflet, balanced argument.* **Evaluating the impact of the author's use of language** ▶ Explore, recognise and use the terms personification, analogy, style and effect. ▶ Explain the effect on the reader of the author's choice of language and reasons why the author may have selected these words, phrases and techniques. **Participating in discussion and debate** ▶ Participate in discussions about books, building on their own and others' ideas and challenging views courteously. ▶ Explain and discuss their understanding of what they have read, including through formal presentations and debates. ▶ Prepare formal presentations individually or in groups. ▶ Use notes to support presentation of information. ▶ Respond to questions generated by a presentation. ▶ Participate in debates on issues related to reading (fiction/non-fiction).

English
Key Learning Indicators of Performance in Reading: Word Lists

Year 1 Common Exception Words					
the	a	do	to	today	of
said	says	are	were	was	is
his	i	you	your	they	be
he	me	she	we	no	go
so	by	my	here	there	where
love	come	some	one	once	ask
friend	school	put	push	pull	full
house	our	and/or others according to the programme used			

Year 2 Common Exception Words					
door	floor	poor	because	find	kind
mind	behind	child	children	wild	climb
most	only	both	old	cold	gold
hold	told	every	everybody	even	great
break	steak	pretty	beautiful	after	fast
last	past	father	class	grass	pass
plant	path	bath	hour	move	prove
improve	sure	sugar	eye	could	should
would	who	whole	any	many	clothes
busy	people	water	again	half	money
Mr	Mrs	parents	Christmas	– and/or others according to the programme used	

English
Key Learning Indicators of Performance in Reading: Word Lists

Year 3

accident(ally)	century	February	length	popular	strange
actual(ly)	circle	forward(s)	library	**potatoes**	**thought**
address	decide	fruit	**minute**	promise	through
answer	describe	**heard**	naughty	purpose	**weight**
arrive	early	heart	**notice**	quarter	**woman/women**
believe	earth	height	occasion(ally)	question	
bicycle	**eight/eighth**	history	often	**reign**	
centre	enough	learn	perhaps	sentence	

Year 4

appear	continue	grammar	material	possible	suppose
breadth	different	group	medicine	pressure	surprise
breathe	difficult	guard	**mention**	probably	therefore
build	disappear	guide	natural	recent	though/although
busy/business	exercise	imagine	opposite	regular	
calendar	experience	important	ordinary	remember	
caught	experiment	increase	particular	separate	
certain	extreme	interest	peculiar	special	
complete	famous	island	**position**	straight	
consider	favourite	knowledge	**possess(ion)**	strength	

3 4

English
Key Learning Indicators of Performance in Reading: Word Lists

Year 5

apparent	**cemetery**	determined	explanation	interfere	occupy
rhythm	amateur	communicate	develop	familiar	language
occur	**secretary**	ancient	community	**dictionary**	**foreign**
leisure	persuade	shoulder	**available**	**conscience***	environment
forty	lightning	**physical**	soldier	**average**	**convenience**
equip (-ped, -ment)	**government**	muscle	programme	stomach	bargain
curiosity	excellent	**hindrance**	neighbour	queue	**temperature**
bruise	**desperate**	**existence**	individual	**nuisance**	recognise
twelfth	rhyme	**vegetable**			

Year 6

accommodate	**category**	disastrous	**immediate(ly)**	privilege	sincere(ly)
accompany	committee	embarrass	interrupt	**profession**	sufficient
according	**competition**	**especially**	marvellous	pronunciation	suggest
achieve	**conscious***	exaggerate	**mischievous**	recommend	symbol
aggressive	controversy	**frequently**	**necessary**	relevant	system
appreciate	correspond	guarantee	opportunity	restaurant	thorough
attached	**criticise (critic + ise)**	harass	parliament	sacrifice	variety
awkward	**definite**	identity	prejudice	**signature**	vehicle
yacht					

English
Key Learning Indicators of Performance in Writing: Year 1

Composition		Transcription	
Vocabulary, grammar and punctuation	**Composition**	**Spelling**	**Handwriting**
▶ Say, and hold in memory whilst writing, simple **sentences** which make sense. ▶ Write simple **sentences** that can be read by themselves and others. ▶ Separate **words** with spaces. ▶ Use **punctuation** to demarcate simple **sentences** (**capital letters** and **full stops**). ▶ Use capital **letter** for the personal pronoun *I*. ▶ Use **capital letters** for names of people, places and days of the week. ▶ Identify and use **question marks** and **exclamation marks.** ▶ Use the joining word *and* to link words and clauses. ▶ Extend range of joining words to link words and clauses using *but* and *or*. ▶ Make **singular** nouns **plural** using *'s'* and *'es'* e.g. *dog, dogs; wish, wishes.* ▶ Add suffixes to verbs **where no spelling change is needed** to the root **word** e.g. *helping, helped, helper.* ▶ Add the prefix *'un'* to verbs and adjectives to change the meaning e.g. *untie, unkind.*	**Planning** ▶ Orally plan and rehearse ideas. ▶ Sequence ideas and events in narrative. ▶ Sequence ideas and events in non-fiction. ▶ Use familiar plots for structuring the opening, middle and end of their stories. **Drafting and Writing** ▶ Orally compose every **sentence** before writing. ▶ Re-read every **sentence** to check it makes sense. ▶ Compose and sequence their own sentences to write short narratives. ▶ Compose and sequence their own sentences to write short non-fiction texts, e.g. *recounts, information texts, instructions.* ▶ Use formulaic phrases to open and close texts. ▶ Write in different forms with simple text type features e.g. *instructions, narratives, recounts, poems, information texts.* **Evaluating and Editing** ▶ Discuss their writing with adults and peers. **Performing** ▶ Read aloud their writing audibly to adults and peers.	▶ Spell words using the 40+ phonemes already taught, including making phonically plausible attempts at more complex words. ▶ Spell words with the sounds /f/, /l/, /s/, /z/ and /k/ spelt ff, ll, ss, zz and ck, e.g. *off, well, miss, buzz, back.* ▶ Spell words with the /ŋ/sound spelt n before k, e.g. *bank, think.* ▶ Divide words into syllables, e.g. *pocket.* ▶ Spell words with -tch, e.g. *catch, fetch, kitchen, notch, hutch.* ▶ Spell words with the /v/ sound at the end of words, e.g. *have, live, give.* ▶ Add s and es to words, e.g. *thanks, catches.* ▶ Add the endings –ing, –ed and –er to verbs where no change is needed to the root word. ▶ Add –er and –est to adjectives where no change is needed to the root word. ▶ Spell words with vowel digraphs (see below). ▶ Spell words with vowel trigraphs (see below). ▶ Spell words ending –y (/iː/ or /ɪ/), e.g. *happy.* ▶ Spell words with new consonant spellings ph and wh, e.g. *dolphin, wheel.* ▶ Spell words using k for the /k/ sound, e.g. *Kent.* ▶ Add the prefix –un. ▶ Spell compound words, e.g. *farmyard, bedroom.* ▶ Spell common exception words (see below). ▶ Spell days of the week. ▶ Name the letters of the alphabet in order. ▶ Use letter names to distinguish between alternative spellings of the same sound. ▶ Write from memory simple sentences dictated by the teacher that include words using the GPCs and common exception words taught so far.	▶ Sit correctly at a table and hold a pencil correctly. ▶ Hold a pencil with an effective grip. ▶ Form lower-case **letters** correctly – *starting and finishing in the right place, going the right way round, correctly oriented.* ▶ Form digits 0-9 correctly. ▶ Practise forming letters in handwriting families: - 'Long ladders' – i, j, l, t, u, - 'One armed robots' – b, h, m, n p, r - 'Curly caterpillars' – c, a, d, e, g, o, q, f, s - Zig-zag letters – k, v, w, x, y, z ▶ Have clear ascenders *('tall **letters**')* and descenders *('tails').* ▶ Form **capital letters** correctly.

1

English
Key Learning Indicators of Performance in Writing: Year 2

Composition		Transcription	
Vocabulary, grammar and punctuation	**Composition**	**Spelling**	**Handwriting**
As above and: ▶ Say, write and punctuate simple and compound sentences using the joining words *and, but, so* and *or* (co-ordination). ▶ Use sentences with different forms: **statement, question, command, exclamation.** ▶ Secure the use of **full stops, capital letters, exclamation marks and question marks.** ▶ Use **commas** to separate items in a list. ▶ Use **apostrophes** for contracted forms e.g. *don't, can't, wouldn't, you're, I'll.* ▶ Use **apostrophes** for **singular** possession in nouns, e.g. *the girl's name.* ▶ Use subordination for time using *when, before* and *after* e.g. *We went out to play when we had finished our writing. When we had finished our writing, we went out to play.* ▶ Use subordination for reason using *because and if* e.g. *I put my coat on because it was raining. Because it was raining, I put on my coat.* ▶ Use the subordinating conjunction *that* in a sentence, e.g. *I hope that it doesn't rain on sports day.* ▶ Select, generate and effectively use **verbs.** ▶ Explore the progressive form of **verbs** in the **present tense** (e.g. *she is drumming*) and **past tense** (*e.g. he was shouting*) to mark actions in progress. ▶ Use **past tense** for narrative, recount *(e.g. diary, newspaper report, biography)* historical reports. ▶ Use **present tense** for non-chronological reports and persuasive adverts. ▶ Select, generate and effectively use **nouns.** ▶ Add **suffixes** *ness* and *er to* create **nouns** e.g. *happiness, sadness, teacher, baker.*	As above and: **Planning** ▶ Plan and discuss what to write about e.g. *story mapping, collecting new vocabulary, key words and ideas.* **Drafting and Writing** ▶ Orally rehearse each sentence prior to writing. ▶ Develop a positive attitude to writing. ▶ Develop stamina for writing in order to write at length. ▶ Write about real and fictional events. ▶ Write simple poems based on models. ▶ Make simple notes from non-fiction texts, e.g. highlighting and noting key words. ▶ Use specific text type features to write for a range of audiences and purposes e.g. *to instruct, inform, entertain, explain, discuss, persuade.* **Evaluating and Editing** ▶ Edit and improve own writing in relation to audience and purpose. ▶ Evaluate their writing with adults and peers. ▶ Proofread to check for errors in spelling, grammar and punctuation. ▶ Proofread to check for correct form of verbs within sentences, e.g. correcting *he walking to the shop* to *he walked to the shop.* **Performing** ▶ Read aloud their writing with intonation to make the meaning clear.	As above and: ▶ Segment spoken words into phonemes and represent these by graphemes, spelling many correctly. ▶ Learn new ways of spelling phonemes for which one or more spellings are already known. ▶ Learn to spell common exception words (see below). ▶ Learn to spell more words with contracted forms, e.g. *can't, didn't, hasn't, couldn't, it's, I'll.* ▶ Learn the possessive apostrophe (singular), e.g. *the girl's book.* ▶ To spell correctly, distinguish between homophones (e.g. *here* and *hear; sea* and *see; bear* and *bare; night* and *knight*) and near-homophones (e.g. *quite* and *quiet; one* and *won; are* and *our*). ▶ Add **suffixes** *ness* and *er* e.g. *happiness, sadness, teacher, baker.* ▶ Add **suffix** *ment* to spell longer words, e.g. *enjoyment.* ▶ Add **suffixes** *ful* and *less* e.g. *playful, careful, careless, hopeless.* ▶ Use **suffixes** *er* and *est* e.g. *faster, fastest, smaller, smallest.* ▶ Use **suffix** *ly* e.g. *slowly, gently, carefully.* **Spell words with:** - the /dʒ/ sound spelt as ge and dge at the end (e.g. *age, badge*), and spelt as g elsewhere (e.g. *magic, giant*). - the /s/ sound spelt c before e, i and y, e.g. *ice, cell* - the /n/ sound spelt kn and gn at the beginning, e.g. *knee, gnat.* - the /ɹ/ sound spelt wr at the beginning e.g. *wrote, wrong.* - the /l/ or /əl/ sound spelt –le at the end of words, e.g. *table, apple.* - the /l/ or /əl/ sound spelt –el at the end of words, e.g. *camel, tunnel.*	As above and: ▶ Form lower-case **letters** of the correct size relative to one another. ▶ Orientate **capital letters** correctly. ▶ Use **capital letters** appropriately e.g. *not always writing A as a capital, not using capitals within words.* ▶ Write **capital letters** and digits of the correct size relative to one another and to lower case **letters**. ▶ Start using some of the diagonal and horizontal strokes needed to join **letters** and understand which **letters**, when adjacent to one another, are best left unjoined. ▶ Use spacing between **words** which reflects the size of the **letters**.

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- ▶ Create **compound** words using **nouns**, e.g. *whiteboard* and *football*.
- ▶ Select, generate and effectively use **adjectives.**
- ▶ Identify, generate and effectively use **noun phrases,** e.g. *the blue butterfly with shimmering wings* (for description), *granulated sugar* (for specification).
- ▶ Add **suffixes** *ful* or *less* to create **adjectives** e.g. *playful, careful, careless, hopeless.*
- ▶ Use **suffixes** *er* and *est* to create **adjectives** e.g. *faster, fastest, smaller, smallest.*
- ▶ Select, generate and effectively use **adverbs**.
- ▶ Use **suffix** *ly* to turn adjectives into **adverbs** e.g. *slowly, gently, carefully.*

- the /l/ or /əl/ sound spelt –al at the end of words, e.g. *pedal, capital.*
- the ending –il e.g. *pencil, fossil, nostril.*
- the /aɪ/ sound spelt –y at the end of words, e.g. *try, reply.*
- The /ɔː/ sound spelt a before l and ll, e.g. *call, walk.*
- The /ʌ/ sound spelt o, e.g. *mother, Monday.*
- The /iː/ sound spelt –ey, e.g. *key, donkey.*
- The /ɒ/ sound spelt a after w and qu, e.g. *wander, quantity.*
- The /ɜː/ sound spelt or after w, e.g. *word, worm.*
- The /ɔː/ sound spelt ar after w, e.g. *war, warm.*
- The /ʒ/ sound spelt s, e.g. *television, usual.*
- ▶ Add –es to nouns and verbs ending in –y, e.g. *copies, babies.*
- ▶ Add –ed, –ing, –er and –est to a root word ending in –y with a consonant before it, e.g. *copied, copier.*
- ▶ Add the endings –ing, –ed, –er, –est and –y to words ending in –e with a consonant before it, e.g. *hiking, hiked, hiker.*
- ▶ Add –ing, –ed, –er, –est and –y to words of one syllable ending in a single consonant letter after a single vowel letter, e.g. *patting, patted.*
- ▶ Spell words ending in -tion, e.g. *station, fiction*
- ▶ Write from memory simple sentences dictated by the teacher that include words using the GPCs, common exception words and punctuation taught so far.

English
Key Learning Indicators of Performance in Writing: Year 3

Composition		Transcription	
Vocabulary, grammar and punctuation	**Composition**	**Spelling**	**Handwriting**
As above and: ▶ Identify **clauses** in sentences. ▶ Explore and identify main and **subordinate clauses** in complex sentences. ▶ Explore, identify and create complex sentences using a range of **conjunctions** e.g. *when, if because, although, while, since, until, before, after, so.* ▶ Use the **comma** to separate **clauses** in complex sentences where the subordinate clause appears first, e.g. *Although it was raining, we decided not to take our coats.* ▶ Identify, select, generate and effectively use **prepositions** for where e.g. *above, below, beneath, within, outside, beyond.* ▶ Select, generate and effectively use **adverbs** e.g. *suddenly, silently, soon, next, eventually.* ▶ Use **inverted commas to** punctuate **direct speech (speech marks).** ▶ Use perfect form of verbs using *have* and *has* to indicate a completed action e.g. *He has gone out to play* (present perfect) instead of *he went out to play* (simple past). ▶ Use the determiner *a* or *an* according to whether the next word begins with a **consonant** or **vowel** e.g. *a rock, an open box.* ▶ Explore and collect **word families** e.g. *medical, medicine, medicinal, medic, paramedic, medically* to extend vocabulary. ▶ Explore and collect nouns with **prefixes** *super, anti, auto.* 💬	As above and: **Planning** ▶ Read and analyse narrative, non-fiction and poetry in order to plan and write their own versions. ▶ Identify and discuss the purpose, audience, structure, vocabulary and grammar of narrative, non-fiction and poetry. ▶ Discuss and record ideas for planning using a range of formats, e.g. *chunking a plot, story maps, flow charts, boxing up.* **Drafting and writing** ▶ Create and develop settings for narrative. ▶ Create and develop characters for narrative. ▶ Improvise, create and write dialogue. ▶ Create and develop plots based on a model. ▶ Generate and select from vocabulary banks e.g. *noun phrases, powerful verbs, technical language, synonyms for said* appropriate to text type. ▶ Use different sentence structures (see VGP). ▶ Group related material into paragraphs. ▶ Use headings and sub headings to organise information. **Evaluating and Editing** ▶ Proofread to check for errors in spelling, grammar and punctuation in own and others' writing. ▶ Discuss and propose changes with partners and in small groups. ▶ Improve writing in the light of evaluation. **Performing** ▶ Use appropriate intonation, tone and volume to present their writing to a group or class.	As above and: ▶ Use further **prefixes** *dis_, mis_, re_,* and **suffixes** _ly, _ous, and understand how to add them. ▶ Add suffixes beginning with vowel letters to words of more than one syllable. ▶ Spell homophones and near homophones. ▶ Spell words containing the /ʌ/ sound spelt ou, e.g. *young, touch, double* ▶ Spell words with endings sounding like /ʒə/ e.g. *treasure, enclosure, pleasure.* ▶ Spell words with endings sounding like or /tʃə/, e.g. *creature, furniture, adventure.* ▶ Spell words with the /eɪ/ sound spelt ei, eigh, or ey, e.g. *vein, weigh, eight, neighbour, they, obey* ▶ Identify and spell irregular past tense verbs, e.g. *send /sent, hear / heard, think/ thought* ▶ Identify and spell irregular plurals, e.g *goose/ geese, woman/women, potato /es* ▶ Use the first two letters of a word to check its spelling in a dictionary. ▶ Write from memory simple sentences, dictated by the teacher, that include words and punctuation taught so far. ▶ Spell words from the Year 3 list (selected from the statutory Year 3/4 word list) - see below.	As above and: ▶ Form and use the four basic handwriting joins. ▶ Write legibly. 💬

Composition		Transcription	
Vocabulary, grammar and punctuation	**Composition**	**Spelling**	**Handwriting**
As above and: ▶ Create complex sentences with adverb starters e.g. *Silently trudging through the snow, Sam made his way up the mountain.* ▶ Use commas to mark clauses in complex sentences. ▶ Create sentences with fronted **adverbials** for when e.g. *As the clock struck twelve, the soldiers sprang into action.* ▶ Create sentences with fronted **adverbials** for where e.g. *In the distance, a lone wolf howled.* ▶ Use commas after fronted **adverbials**. ▶ Identify, select and use **determiners** including: - articles: *a/an, the* - demonstratives : *this/that; these/those* - possessives: *my/your/his/her/its/our/their* - quantifiers: *some, any, no, many, much, every* ▶ Use inverted commas and other punctuation to indicate direct speech e.g. *The tour guide announced, "Be back here at four o' clock."* ▶ Identify, select and effectively use **pronouns.** ▶ Use nouns for precision, e.g. *burglar* rather than *man, bungalow* rather than *house.* ▶ Explore, identify, collect and use noun phrases e.g. *the crumbly cookie with tasty marshmallow pieces.* ▶ Explore, identify and use Standard English verb inflections for writing e.g. *We were* instead of *we was. I was* instead of *I were, I did* instead of *I done. She saw it* instead of *she seen it.* ▶ Use apostrophes for singular and plural possession e.g. *the dog's bone and the dogs' bones.*	As above and: **Planning** ▶ Read and analyse narrative, non-fiction and poetry in order to plan their own versions. ▶ Identify and discuss the purpose, audience, structure, vocabulary and grammar of narrative, non-fiction and poetry. ▶ Discuss and record ideas for planning e.g. *story mountain, text map, non-fiction bridge, story board, boxing-up text types to create a plan.* **Drafting and Writing** ▶ Develop settings and characterisation using vocabulary to create emphasis, humour, atmosphere, suspense. ▶ Plan and write an opening paragraph which combines setting and character/s. ▶ Improvise and compose dialogue, demonstrating their understanding of Standard and non-Standard English. ▶ Generate and select from vocabulary banks e.g. **adverbial** *phrases, technical language, persuasive phrases, alliteration*. ▶ Use different sentence structures (see VGP). ▶ Use paragraphs to organise writing in fiction and non-fiction texts. ▶ Use organisational devices in non-fiction writing, e.g. *captions, text boxes, diagram, lists*. ▶ Link ideas across paragraphs using fronted **adverbials** for when and where e.g. *Several hours later…, Back at home…* **Evaluating and Editing** ▶ Proofread to check for errors in spelling, grammar and punctuation. ▶ Discuss and propose changes to own and others' writing with partners/small groups. ▶ Improve writing in light of evaluation. **Performing** ▶ Use appropriate intonation, tone and volume to present their writing to a range of audiences.	As above and: ▶ Use further prefixes, e.g. *in-* , *im-* *ir–, sub–, inter–, super–, anti–, auto–*. ▶ Use further suffixes, e.g. *–ation, - tion, –ssion, –cian.* ▶ Investigate what happens to words ending in f when suffixes are added, e.g. *calf/calves.* ▶ Identify and spell words with the /k/ sound spelt ch (Greek in origin), e.g. *scheme, chorus.* ▶ Identify and spell words with the /ʃ/ sound spelt ch (mostly French in origin), e.g. *chef, chalet, machine.* ▶ Identify and spell words ending with the /g/ sound spelt –gue and the /k/ sound spelt –que (French in origin), e.g. *tongue, antique.* ▶ Identify and spell words with the /s/ sound spelt sc (Latin in origin), e.g. *science, scene.* ▶ Understand how diminutives are formed using e.g. suffix - *ette* and prefix *mini-*. ▶ Investigate ways in which nouns and adjectives can be made into verbs by the use of suffixes e.g. *pollen* (noun) and *–ate* = *pollinate* (verb). ▶ The /ɪ/ sound spelt y elsewhere than at the end of words, e.g. *myth, gym, Egypt.* ▶ Use the first three letters of a word to check its spelling in a dictionary. ▶ Write from memory simple sentences, dictated by the teacher, that include words and punctuation taught so far. ▶ Explore and use the possessive apostrophe, e.g. *boy's books* (books belonging to a boy) and *boys' books* (books belonging to more than one boy). ▶ Spell words from the Year 4 list (selected from the statutory Year 3/4 word list) - see below.	As above and: ▶ Use a joined style throughout their independent writing. ▶ Write with consistency in size and proportion of letters, e.g. *by ensuring that the downstrokes of letters are parallel and equidistant; that lines of writing are spaced sufficiently so that the ascenders and descenders of letters do not touch.*

Composition		Transcription	
Vocabulary, grammar and punctuation	**Composition**	**Spelling**	**Handwriting and Presentation**
As above and: ▶ Create complex sentences by using **relative clauses** with **relative pronouns** _who, which, where, whose, when, that_ e.g. _Sam, who had remembered his wellies, was first to jump in the river. The thief broke into the house which stood on the top of the hill._ ▶ Create complex sentences where the **relative pronoun** is omitted e.g. _Tina, standing at the bus stop, pondered the day ahead._ ▶ Create and punctuate complex sentences using _ed_ opening clauses e.g. _Exhausted from the race, Sam collapsed in a heap._ ▶ Create and punctuate complex sentences using _ing_ opening clauses, e.g. _Grinning with anticipation, Paul launched himself from the diving board._ ▶ Create and punctuate **sentences** using simile starters, e.g. _Like a fish out of water, she conversed awkwardly with the other guests._ ▶ Demarcate complex sentences using commas in order to clarify meaning. ▶ Use commas to avoid **ambiguity**, e.g. '_Let's eat Grandma.'_ and '_Let's eat, Grandma.'_ ▶ Identify and use commas to indicate **parenthesis**, e.g. _The house, lonely and abandoned, teetered on the edge of the cliff._ ▶ Identify and use **brackets** to indicate **parenthesis**, e.g. in formal writing: _The Cheetah (Acinonyx jubatus) inhabits open grassland in Africa._ ▶ Identify and use **dashes** to indicate **parenthesis**, e.g. in less formal writing: _The cake was lovely – delicious in fact – so I had another slice._ ▶ Link ideas across paragraphs using adverbials for time, place and numbers e.g. _later, nearby, secondly._	As above and: **Planning** ▶ Identify the audience and purpose. ▶ Select the appropriate language and structures. ▶ Use similar writing models. ▶ Note and develop ideas. ▶ Draw on reading and research. ▶ Think how authors develop characters and settings (in books, films and performances). **Drafting and Writing** ▶ Select _appropriate_ structure, vocabulary and grammar. ▶ Blend action, dialogue and description within and across paragraphs. ▶ Use different sentence structures with increasing control (see VGP). ▶ Use devices to build cohesion (see VGP). ▶ Use organisation and presentational devices e.g. _underlining, bullet points, headings._ **Evaluating and Editing** ▶ Assess the effectiveness of own and others' writing in relation to audience and purpose. ▶ Suggest changes to grammar, vocabulary and punctuation to enhance effects and clarify meaning. ▶ Ensure consistent and correct use of tense throughout a piece of writing. ▶ Ensure consistent subject and verb agreement. ▶ Proofread for spelling and punctuation errors. **Performing** ▶ Use appropriate intonation and volume. ▶ Add movement. ▶ Ensure meaning is clear.	As above and: ▶ Investigate verb prefixes e.g. _dis-, re-, pre-, mis-, over-_. ▶ Recognise and spell words ending in _–ant, –ance/–ancy, –ent, –ence/–ency_. ▶ Recognise and spell words ending in _–able_ and _–ible_. ▶ Recognise and spell words ending in _–ably_ and _–ibly_. ▶ Recognise and spell words with the /iː/ sound spelt ei after c, e.g. _deceive, receive_. ▶ Recognise and spell words containing the letter-string _ough_. ▶ To recognise and spell the suffixes _-al,- ary,- ic_. ▶ To spell further suffixes, e.g. _ll in full becoming l_. ▶ Spell some words with 'silent' letters, e.g. _knight, psalm, solemn_. ▶ To spell unstressed vowels in polysyllabic words. ▶ Develop self-checking and proof reading ▶ strategies. ▶ Spell words that they have not yet been taught by using what they have learnt about how spelling works in English. ▶ Use the first three or four letters of a word to check spelling, meaning or both of these in a dictionary. ▶ Use a thesaurus. ▶ Spell words from the Year 5 list (selected from the statutory Year 5/6 word list) - see below. 💬	As above and: ▶ Write fluently using a joined style as appropriate for independent writing. ▶ Choose when it is appropriate to print (lower case or upper case) rather than to join writing e.g. _printing for labelling a scientific diagram or data, filling in a form, writing an e mail address._

- Use devices to build **cohesion** within a paragraph e.g. *firstly, then, presently, this, subsequently.*
- Use expanded noun phrases to convey complicated information concisely, e.g. *carnivorous predators with surprisingly weak jaws and small teeth.*
- Explore, collect and use **modal verbs** to indicate degrees of possibility e.g. *might, could, shall, will, must.*
- Explore, collect and use adverbs to indicate degrees of possibility e.g. *surely, perhaps, maybe, definitely, alternatively, certainly, probably.*
- Use suffixes *–ate, -ise, -ify* to convert nouns and adjectives into verbs.
- Investigate verb prefixes e.g. *dis-, de-, re-, pre-, mis-, over-.*

English
Key Learning Indicators of Performance in Writing: Year 6

Composition		Transcription	
Vocabulary, grammar and punctuation	**Composition**	**Spelling**	**Handwriting and Presentation**
As above and: ▶ <u>Manipulate sentences to create particular effects.</u> ▶ <u>Use devices to build cohesion between paragraphs in persuasive, discursive and explanatory texts e.g. adverbials such as: *on the other hand, the opposing view, similarly, in contrast, although, additionally, another possibility, alternatively, as a consequence.*</u> ▶ <u>Use devices to build cohesion between paragraphs in narrative e.g. adverbials such as: *in the meantime, meanwhile, in due course, until then.*</u> ▶ Use **ellipsis** to link ideas between paragraphs. ▶ Use repetition of a word or phrase to link ideas between paragraphs. ▶ Identify and use **semi-colons** to mark the boundary between independent clauses e.g. *It is raining; I am fed up.* ▶ Investigate and collect a range of **synonyms** and **antonyms** e.g. *mischievous, wicked, evil, impish, spiteful, well-behaved.* ▶ Identify the **subject** and **object** of a sentence. ▶ Explore and investigate **active** and **passive** e.g. *I broke the window in the greenhouse* versus *the window in the greenhouse was broken.* ▶ Explore, collect and use examples of the perfect form of verbs to mark relationships of time and cause e.g. *I <u>had eaten</u> lunch when you came (past perfect); She <u>has eaten</u> lunch already or I <u>have eaten</u> lunch already (present perfect); I <u>will have eaten</u> lunch by then (future perfect).* ▶ Punctuate **bullet points** consistently. ▶ Identify and use **colons** to introduce a list.	As above and: **Planning** ▶ Identify audience and purpose. ▶ Choose appropriate text-form and type for all writing. ▶ <u>Select the appropriate structure, vocabulary and grammar.</u> ▶ Draw on similar writing models, reading and research. ▶ Compare how authors develop characters and settings (in books, films and performances). ▶ Use a range of planning approaches e.g. *storyboard, story mountain, discussion group, post-it notes, ICT story planning.* **Drafting and Writing** ▶ Select appropriate vocabulary and language effects, appropriate to task, audience and purpose, for precision and impact. ▶ Select appropriate register for formal and informal purposes, e.g. a speech for a debate (formal), dialogue within narrative (formal or informal), text message to a friend (informal). ▶ <u>Blend action, dialogue and description within sentences and paragraphs to convey character and advance the action e.g. *Tom stomped into the room, flung down his grubby, school bag and announced, through gritted teeth, "It's not fair!"*</u> ▶ Consciously control the use of different sentence structures for effect. ▶ Use a wide range of devices to build cohesion within and across paragraphs. ▶ Deviate narrative from linear or chronological sequence e.g. *flashbacks, simultaneous actions, time-shifts.* ▶ Combine text-types to create hybrid texts e.g. *persuasive speech.*	As above and: ▶ Recognise and spell endings which sound like /ʃəs/, spelt – *cious* or –*tious.* ▶ Recognise and spell endings which sound like /ʃəl/, e.g. *official, partial.* ▶ Investigate adding suffixes beginning with vowel letters to words ending in –*fer,* e.g. *referring, reference.* ▶ Investigate use of the hyphen. ▶ Investigate and use further prefixes, e.g. *bi- trans- tele- circum-.* ▶ Distinguish between homophones and other words that are often confused. ▶ Identify root words, derivations and spelling patterns as a support for spelling. ▶ Be secure with all spelling rules previously taught. ▶ Use a number of different strategies interactively in order to spell correctly. ▶ <u>Develop self-checking and proof-checking strategies, including the use of a dictionary and thesaurus.</u> ▶ Spell words from the Year 6 list (selected from the statutory Year 5/6 word list) - see below.	As above and: ▶ Write, using a joined style, with increasing speed. ▶ Choose the writing implement that is best suited for a task e.g. *pencil for quick notes, handwriting pen for letters, marker pens for posters.*

- Identify and use **semi-colons** within lists.
- Explore how **hyphens** can be used to avoid ambiguity e.g. *man eating shark* versus *man-eating shark*.
- Explore, collect and use vocabulary typical of formal and informal speech and writing e.g. *find out – discover, ask for - request, go in – enter*.
- Explore, collect and use question tags typical of informal speech and writing e.g. *"He's your friend, isn't he?"*
- Explore, collect and use subjunctive forms for formal speech and writing e.g. *If I were able to come to your party, I would; The school requires that all pupils be honest.*

- Evaluate, select and use a range of organisation and presentational devices to structure text for different purposes and audiences e.g. *headings, sub-headings, columns, bullet points, tables.*
- Find examples of where authors have broken conventions to achieve specific effects and use similar techniques in own writing – e.g. *repeated use of 'and' to convey tedium, one word sentence.*
- Make conscious choices about techniques to engage the reader including appropriate tone and style e.g. *rhetorical questions, direct address to the reader.*
- Use **active** and **passive** voice to achieve intended effects e.g. *formal reports, explanations and mystery narrative.*
- Précis longer passages.

Evaluating and Editing
- Reflect upon the effectiveness of writing in relation to audience and purpose, suggesting and making changes to enhance effects and clarify meaning.
- Proofread for grammatical, spelling and punctuation errors.

Performing
- Use appropriate and effective intonation and volume.
- Add gesture and movement to enhance meaning.
- Encourage and take account of audience engagement.

English
Key Learning Indicators of Performance in Writing: Word Lists

Year 1 Common Exception Words

the	a	do	to	today	of
said	says	are	were	was	is
his	i	you	your	they	be
he	me	she	we	no	go
so	by	my	here	there	where
love	come	some	one	once	ask
friend	school	put	push	pull	full
house	our	and/or others according to the programme used			

Year 2 Common Exception Words

door	floor	poor	because	find	kind
mind	behind	child	children	wild	climb
most	only	both	old	cold	gold
hold	told	every	everybody	even	great
break	steak	pretty	beautiful	after	fast
last	past	father	class	grass	pass
plant	path	bath	hour	move	prove
improve	sure	sugar	eye	could	should
would	who	whole	any	many	clothes
busy	people	water	again	half	money
Mr	Mrs	parents	Christmas	– and/or others according to the programme used	

English
Key Learning Indicators of Performance in Writing: Word Lists

Year 3					
accident(ally)	century	February	length	popular	strange
actual(ly)	circle	forward(s)	library	**potatoes**	**thought**
address	decide	fruit	**minute**	promise	through
answer	describe	**heard**	naughty	purpose	**weight**
arrive	early	heart	**notice**	quarter	**woman/women**
believe	earth	height	occasion(ally)	question	
bicycle	**eight/eighth**	history	often	**reign**	
centre	enough	learn	perhaps	sentence	

Year 4					
appear	continue	grammar	material	possible	suppose
breadth	different	group	medicine	pressure	surprise
breathe	difficult	guard	**mention**	probably	therefore
build	disappear	guide	natural	recent	though/although
busy/business	exercise	imagine	opposite	regular	
calendar	experience	important	ordinary	remember	
caught	experiment	increase	particular	separate	
certain	extreme	interest	peculiar	special	
complete	famous	island	**position**	straight	
consider	favourite	knowledge	**possess(ion)**	strength	

3 4

English
Key Learning Indicators of Performance in Writing: Word Lists

Year 5

apparent	**cemetery**	determined	explanation	interfere	occupy
rhythm	amateur	communicate	develop	familiar	language
occur	**secretary**	ancient	community	**dictionary**	**foreign**
leisure	persuade	shoulder	**available**	**conscience***	environment
forty	lightning	**physical**	soldier	**average**	**convenience**
equip (-ped, -ment)	**government**	muscle	programme	stomach	bargain
curiosity	excellent	**hindrance**	neighbour	queue	**temperature**
bruise	**desperate**	**existence**	individual	**nuisance**	recognise
twelfth	rhyme	**vegetable**			

Year 6

accommodate	**category**	disastrous	**immediate(ly)**	privilege	sincere(ly)
accompany	committee	embarrass	interrupt	**profession**	sufficient
according	**competition**	**especially**	marvellous	pronunciation	suggest
achieve	**conscious***	exaggerate	**mischievous**	recommend	symbol
aggressive	controversy	**frequently**	**necessary**	relevant	system
appreciate	correspond	guarantee	opportunity	restaurant	thorough
attached	**criticise (critic + ise)**	harass	parliament	sacrifice	variety
awkward	**definite**	identity	prejudice	**signature**	vehicle
yacht					

These materials have been written by Lancashire Professional Development Service (LPDS) Teaching and Learning Consultants for Primary Mathematics in conjunction with the aims and statutory requirements set out in the National Curriculum 2014.

What are the KLIPs?

The KLIPs, or **Key Learning Indicators of Performance**, have been developed from Lancashire's National Curriculum Support Materials which detail the key learning in mathematics for each year group. These key learning grids for each year group can be used to provide:

- ▶ detailed assessment information for the teacher to use to inform their future planning of next steps (formative);
- ▶ overall judgements which can be made more summatively (for example once a term), to enable senior leadership teams to track progress across the school, during the year. This will assist schools with self-evaluation and in informing discussions with others e.g. inspection teams, about attainment and progress;
- ▶ a means of informing parents about attainment and progress.

The underlined statements on the grids have been identified as **Key Learning Indicators of Performance** (KLIPs) as these have the greatest impact on the further development of skills and subsequent learning. Consequently, the **Key Learning Indicators of Performance** (KLIPs) play a particularly significant role in the assessment process.

How Do I Use KLIPs to Support Assessment in Mathematics?

The KLIPs approach is intended to be used for periodic assessment, in other words 'stepping back', perhaps termly, and asking the question 'How is this pupil performing in mathematics?'

The Process

- ▶ Consider the pupil's performance in relation to **all** of the key learning statements not just the KLIPs (the ones which have been underlined).
- ▶ Make a professional judgement as to whether the expectations have been achieved, highlighting statements, or partial statements to record judgements. If statements are highlighted termly, consider using different coloured highlighters each term to indicate where progress has been made.
- ▶ A child does not need to demonstrate an aspect of key learning a specific number of times for them to be assessed as having achieved it. However, they would be expected to **demonstrate and apply** the skill or knowledge **independently, consistently and in a range of contexts**. The contexts could be within mathematics, for example calculation when working out perimeter, or within other subjects, for example, interpreting data created in a science lesson.
- ▶ For each statement, teachers should also consider evidence that has not been scaffolded through immediate direct teaching or through over reliance on tools such as process success criteria.
- ▶ Assessing mathematics involves examining pupils' competence in both the concept itself and its application into reasoning and problem solving. Rich opportunities to gather evidence include guided sessions, starters away from where the concept has been originally taught, discussion between talk partners and learning across the curriculum.
- ▶ Assessment information, highlighted on the grids, should be used to inform the teacher's planning so that gaps and next steps can be addressed.

Making a Summative Judgement Using the KLIPs Approach

▶ Make a judgement about the child's current position in learning, based on a balance of strengths and aspects that need further learning opportunities. Consider whether the child is 'on track' to achieve the year group expectations by the end of the academic year.

▶ The three definitions used here are offered as guidance to teachers making 'best fit' judgements, at the end of each term:

   o **Entering** - starting to demonstrate some of the features of this year group's expectations (although these may not yet be evident in reasoning and problem solving or be fully meeting the end of year expectation, e.g. a Year One child at the end of the autumn term may be competent with counting to 50, but not yet to 100). Typically what would be expected if a child was on track at the end of the autumn term in a particular year group (e.g. a child typically working at what you would expect, at end of autumn term Y3, would be 'entering, Y3').

   o **Developing** – demonstrating more of the features of this year group's expectations. Some learning in some aspects might not be fully embedded across all situations. Typically what would be expected if a child was on track at the end of the spring term in a particular year group (e.g. a child typically working at what you would expect, at end of spring term Y3, would be 'developing, Y3').

   o **Secure** - demonstrating most (or indeed all) of the features of this year group's expectations. To attain a secure judgement, the child must have achieved all of the **key learning indicators of performance** (KLIPS, underlined statements) unless they have a specific learning difficulty that prevents them from doing so. Their typical knowledge/understanding/skill demonstrated is behaviour which is **embedded**. Typically what would be expected if a child was on track at the end of the summer term in a particular year group (e.g. a child typically working at what you would expect for a typical child at the end of Y3, would be 'secure, Y3').

▶ There are no set percentages or numbers of statements which need to be highlighted in order to determine whether a child is entering, developing or secure in relation to a particular age group expectation. Profiles of children judged to be 'developing' for instance could be very different.

Number – number and place value	Number – addition and subtraction	Number – multiplication and division
- Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. - Count in multiples of twos, fives and tens. - Read and write numbers to 100 in numerals. - Read and write numbers from 1 to 20 in numerals and words. *Begin to recognise the place value of numbers beyond 20 (tens and ones).* - Identify and represent numbers using objects and pictorial representations including the number line *(numbers to at least 30).* - Use the language of: equal to, more than, less than (fewer), most, least. - Given a number, identify one more and one less. *Recognise and create repeating patterns with numbers, objects and shapes.* *Identify odd and even numbers linked to counting in twos from 0 and 1.* *Solve problems and practical problems involving all of the above.*	- Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs. - Represent and use number bonds and related subtraction facts within 20. - Add and subtract one-digit and two-digit numbers to 20, including zero *(using concrete objects and pictorial representations).* - Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ - 9.	*Recall and use doubles of all numbers to 10 and corresponding halves.* - Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

1

Mathematics
Key Learning Indicators of Performance: Year 1

Number – fractions	Geometry – properties of shapes	Measurement
▶ *Understand that a fraction can describe part of a whole.* ▶ *Understand that a unit fraction represents one equal part of a whole.* ▶ Recognise, find and name a half as one of two equal parts of an object shape or quantity *(including measure).* ▶ Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity *(including measure).*	▶ Recognise and name common 2-D shapes, including rectangles (including squares), circles and triangles. ▶ Recognise and name common 3-D shapes, including cuboids (including cubes), pyramids and spheres.	▶ Measure and begin to record: - lengths and heights, *using non-standard and then manageable standard units (m/cm)* - mass/weight, *using non-standard and then manageable standard units (kg/g)* - capacity and volume *using non-standard and then manageable standard units (litres/ml)* - time (hours/minutes/seconds) *within children's range of counting competence.* ▶ Compare, describe and solve practical problems for: - lengths and heights (for example, long / short, longer / shorter. tall / short, double / half). - mass/weight (for example, heavy / light, heavier than, lighter than). - capacity and volume (for example, full/empty, more than, less than, half, half full, quarter). - time (for example, quicker, slower, earlier, later). ▶ Recognise and use language relating to dates, including days of the week, weeks, months and years. ▶ Sequence events in chronological order using language (for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening. ▶ Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. ▶ Recognise and know the value of different denominations of coins and notes.

Geometry – position and direction

▶ Describe movement, including whole, half, quarter and three-quarter turns.
▶ *Recognise and create repeating patterns with objects and shapes.*
▶ Describe position and direction.

Statistics

▶ *Sort objects, numbers and shapes to a given criterion and their own.*
▶ *Present and interpret data in block diagrams using practical equipment.*
▶ *Ask and answer simple questions by counting the number of objects in each category.*
▶ *Ask and answer questions by comparing categorical data.*

Mathematics
Key Learning Indicators of Performance: Year 2

Number – number and place value	Number – addition and subtraction	Number – multiplication and division
- Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward. - Read and write numbers to at least 100 in numerals and in words. - Recognise the place value of each digit in a two-digit number (tens, ones). - Identify, represent and estimate numbers using different representations, including the number line. *Partition numbers in different ways (e.g. 23 = 20 + 3 and 23 = 10 + 13).* - Compare and order numbers from 0 up to 100; use <, > and = signs. *Find 1 or 10 more or less than a given number.* - Round numbers to at least 100 to the nearest 10. *Understand the connection between the 10 multiplication table and place value.* *Describe and extend simple sequences involving counting on or back in different steps.* - Use place value and number facts to solve problems.	*Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting).* *Select a mental strategy appropriate for the numbers involved in the calculation.* - Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. *Understand subtraction as take away and difference (how many more, how many less/fewer).* - Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 *(bonds totalling 5, 10 and 20).* *Recall and use number bonds for multiples of 5 totalling 60 (to support telling time to nearest 5 minutes).* - Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: - a two-digit number and ones. - a two-digit number and tens. - two two-digit numbers. - adding three one-digit numbers. - Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. - Solve problems with addition and subtraction *including with missing numbers:* - using concrete objects and pictorial representations, including those involving numbers, quantities and measures. - applying their increasing knowledge of mental and written methods.	*Understand multiplication as repeated addition and arrays.* *Understand division as sharing and grouping and that a division calculation can have a remainder.* - Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. - Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. *Derive and use doubles of simple two-digit numbers (numbers in which the ones total less than 10).* *Derive and use halves of simple two-digit even numbers (numbers in which the tens are even).* - Calculate mathematical statements for multiplication *using repeated addition)* and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs. - Solve problems involving multiplication and division *(including those with remainders)*, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.

Mathematics
Key Learning Indicators of Performance: Year 2

Number – fractions	Geometry – properties of shapes	Measurement

Number – fractions

- *Understand and use the terms numerator and denominator.*
- *Understand that a fraction can describe part of a set.*
- *Understand that the larger the denominator is, the more pieces it is split into and therefore the smaller each part will be.*
- Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity.
- Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.
- *Count on and back in steps of $\frac{1}{2}$ and $\frac{1}{4}$.*

Geometry – properties of shapes

- Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line.
- Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces.
- Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid].

Geometry – position and direction

- Order/arrange combinations of mathematical objects in patterns/sequences.
- Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).

Measurement

- Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity and volume (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels *(within children's place value competence).*
- Compare and order lengths, mass, volume/capacity and record the results using >, < and =.
- Recognise and 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.
- Compare and sequence intervals of time.
- Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times.
- Know the number of minutes in an hour and the number of hours in a day.
- Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change *and measures (including time).*

Statistics

- Compare and sort *objects, numbers and* common 2-D and 3-D shapes and everyday objects.
- Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.
- Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.
- Ask and answer questions about totalling and comparing categorical data.

Mathematics
Key Learning Indicators of Performance: Year 3

Number – number and place value	Number – addition and subtraction	Number – multiplication and division
- Count from 0 in multiples of 4, 8, 50 and 100. - Count up and down in tenths. - Read and write numbers up to 1000 in numerals and in words. *Read and write numbers with one decimal place.* - Identify, represent and estimate numbers using different representations *(including the number line).* - Recognise the place value of each digit in a three-digit number (hundreds, tens, ones). *Identify the value of each digit to one decimal place.* *Partition numbers in different ways (e.g. 146 = 100+ 40+6 and 146 = 130+16).* - Compare and order numbers up to 1000. *Compare and order numbers with one decimal place.* - Find 1, 10 or 100 more or less than a given number. *Round numbers to at least 1000 to the nearest 10 or 100.* *Find the effect of multiplying a one- or two-digit number by 10 and 100, identify the value of the digits in the answer.* *Describe and extend number sequences involving counting on or back in different steps.* *Read Roman numerals from I to XII.* - Solve number problems and practical problems involving these ideas.	*Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).* *Select a mental strategy appropriate for the numbers involved in the calculation.* *Understand and use take away and difference for subtraction, deciding on the most efficient method for the numbers involved, irrespective of context.* *Recall/use addition/subtraction facts for 100 (multiples of 5 and 10).* - Derive and use addition and subtraction facts for 100. *Derive and use addition and subtraction facts for multiples of 100 totalling 1000.* - Add and subtract numbers mentally, including: - a three-digit number and ones. - a three-digit number and tens. - a three-digit number and hundreds. - Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. - Estimate the answer to a calculation and use inverse operations to check answers. - Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	*Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).* *Understand that division is the inverse of multiplication and vice versa.* *Understand how multiplication and division statements can be represented using arrays.* *Understand division as sharing and grouping and use each appropriately.* - Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. *Derive and use doubles of all numbers to 100 and corresponding halves.* *Derive and use doubles of all multiples of 50 to 500.* - Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods. *Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.* - Solve problems, including missing number problems, involving multiplication and division *(and interpreting remainders)*, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.

3

Number – fractions

▶ *Show practically or pictorially that a fraction is one whole number divided by another (e.g. $\frac{3}{4}$ can be interpreted as 3 ÷ 4).*

▶ *Understand that finding a fraction of an amount relates to division.*

▶ Recognise that tenths arise from dividing objects into 10 equal parts and in dividing one-digit numbers or quantities by 10.

▶ Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.

▶ Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.

▶ Recognise and show, using diagrams, equivalent fractions with small denominators.

▶ Add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$].

▶ Compare and order unit fractions, and fractions with the same denominators *(including on a number line).*

▶ *Count on and back in steps of $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{1}{3}$.*

▶ Solve problems that involve all of the above.

Geometry – properties of shapes

▶ Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them.

▶ Recognise angles as 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 of a turn and four a complete turn; identify whether angles are greater than or less than a right angle.

▶ Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

Geometry – position and direction

▶ *Describe positions on a square grid labelled with letters and numbers.*

Measurement

▶ Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).

▶ *Continue to estimate and measure temperature to the nearest degree (°C) using thermometers.*

▶ *Understand perimeter is a measure of distance around the boundary of a shape.*

▶ Measure the perimeter of simple 2-D shapes.

▶ Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.

▶ Estimate/read time with increasing accuracy to the nearest minute.

▶ Record/compare time in terms of seconds, minutes, hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon, midnight.

▶ Know the number of seconds in a minute and the number of days in each month, year and leap year.

▶ Compare durations of events [for example to calculate the time taken by particular events or tasks].

▶ *Continue to recognise and use the symbols for pounds (£) and pence (p) and understand that the decimal point separates pounds/pence.*

▶ *Recognise that ten 10p coins equal £1 and that each coin is $\frac{1}{10}$ of £1.*

▶ Add and subtract amounts of money to give change, using both £ and p in practical contexts.

▶ *Solve problems involving money and measures and simple problems involving passage of time.*

Statistics

▶ *Use sorting diagrams to compare and sort objects, numbers and common 2-D and 3-D shapes and everyday objects.*

▶ Interpret and present data using bar charts, pictograms and tables.

▶ Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.

Mathematics
Key Learning Indicators of Performance: Year 4

Number – number and place value	Number – addition and subtraction	Number – multiplication and division
- Count in multiples of 6, 7, 9, 25 and 1000. - Count backwards through zero to include negative numbers. - Count up and down in hundredths. *Read and write numbers to at least 10 000.* *Read and write numbers with up to two decimal places.* - Recognise the place value of each digit in a four-digit number. *Identify the value of each digit to two decimal places.* *Partition numbers in different ways (e.g. 2.3 = 2 + 0.3 and 1 + 1.3).* - Identify, represent and estimate numbers using different representations *(including the number line).* - Order and compare numbers beyond 1000. *Order and* compare numbers with the same number of decimal places up to two decimal places. - Find *0.1, 1, 10, 100 or* 1000 more or less than a given number. - Round any number to the nearest 10, 100 or 1000. - Round decimals (one decimal place) to the nearest whole number. - Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer. *Describe and extend number sequences involving counting on or back in different steps, including sequences with multiplication and division steps.* - Read Roman numerals to 100 and know that over time, the numeral system changed to include the concept of zero and place value. *Solve number and practical problems that involve all of the above and with increasingly large positive numbers.*	*Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).* *Select a mental strategy appropriate for the numbers involved in the calculation.* *Recall and use addition and subtraction facts for 100.* *Recall and use addition and subtraction facts for multiples of 100 totalling 1000.* *Derive and use addition and subtraction facts for 1 and 10 (with decimal numbers to one decimal place).* *Add and subtract mentally combinations of two and three digit numbers and decimals to one decimal place.* - Add and subtract numbers with up to 4 digits *and decimals with one decimal place* using the formal written methods of columnar addition and subtraction where appropriate. - Estimate; use inverse operations to check answers to a calculation. - Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. *Solve addition and subtraction problems involving missing numbers.*	*Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).* - Recognise and use factor pairs and commutativity in mental calculations. - Recall multiplication and division facts for multiplication tables up to 12 × 12. *Use partitioning to double or halve any number, including decimals to one decimal place.* - Use place value, known and derived facts to multiply and divide mentally, including: - multiplying by 0 and 1. - dividing by 1. - multiplying together three numbers. - Multiply two-digit and three-digit numbers by a one-digit number using formal written layout. *Divide numbers up to 3 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context.* *Use estimation and inverse to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.* - Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, *division (including interpreting remainders),* integer scaling problems and harder correspondence problems such as n objects are connected to m objects.

Number – fractions, decimals and percentages

- *Understand that a fraction is one whole number divided by another (e.g. $\frac{3}{4}$ can be interpreted as 3 ÷ 4).*
- *Recognise, find and write fractions of a discrete set of objects including those with a range of numerators and denominators.*
- Recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.
- *Count on and back in steps of unit fractions.*
- *Compare and order unit fractions and fractions with the same denominators (including on a number line).*
- Recognise and show, using diagrams, families of common equivalent fractions.
- Recognise and write decimal equivalents of any number of tenths or hundredths.
- Recognise and write decimal equivalents to $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}$.
- Add and subtract fractions with the same denominator *(using diagrams).*
- Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.
- Solve simple measure and money problems involving fractions and decimals to two decimal places.

Geometry – properties of shapes

- Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.
- Identify lines of symmetry in 2-D shapes presented in different orientations.
- Complete a simple symmetric figure with respect to a specific line of symmetry.
- *Continue to identify horizontal and vertical lines and pairs of perpendicular and parallel lines.*
- Identify acute and obtuse angles and compare and order angles up to two right angles by size.

Geometry – position and direction

- Describe positions on a 2-D grid as coordinates in the first quadrant.
- Plot specified points and draw sides to complete a given polygon.
- Describe movements between positions as translations of a given unit to the left/right and up/down.

Measurement

- Estimate, compare and calculate different measures, including money in pounds and pence.
- *Order temperatures including those below 0°C.*
- Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.
- *Know area is a measure of surface within a given boundary.*
- Find the area of rectilinear shapes by counting squares.
- Convert between different units of measure [e.g. kilometre to metre; hour to minute].
- Read, write and convert time between analogue and digital 12- and 24-hour clocks.
- *Write amounts of money using decimal notation.*
- *Recognise that one hundred 1p coins equal £1 and that each coin is $\frac{1}{100}$ of £1.*
- Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days *and problems involving money and measures.*

Statistics

- *Use a variety of sorting diagrams to compare and classify numbers and geometric shapes based on their properties and sizes.*
- Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts, time graphs.
- Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.

Mathematics
Key Learning Indicators of Performance: Year 5

Number – number and place value	Number – addition and subtraction	Number – multiplication and division
▶ Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000. ▶ *Count forwards and backwards in decimal steps.* ▶ Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit. ▶ Read, write, order and compare numbers with up to 3 decimal places. ▶ *Identify the value of each digit to three decimal places.* ▶ *Identify represent and estimate numbers using the number line.* ▶ *Find 0.01, 0.1, 1, 10, 100, 100 and other powers of 10 more or less than a given number.* ▶ Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000. ▶ Round decimals with two decimal places to the nearest whole number and to one decimal place. ▶ Multiply/divide whole numbers and decimals by 10, 100 and 1000. ▶ Interpret negative numbers in context, count on and back with positive and negative whole numbers, including through zero. ▶ *Describe and extend number sequences including those with multiplication/division steps and where the step size is a decimal.* ▶ Read Roman numerals to 1000 (M); recognise years written as such. ▶ Solve number and practical problems that involve all of the above.	▶ *Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).* ▶ *Select a mental strategy appropriate for the numbers involved in the calculation.* ▶ *Recall and use addition and subtraction facts for 1 and 10 (with decimal numbers to one decimal place).* ▶ *Derive and use addition and subtraction facts for 1 (with decimal numbers to two decimal places).* ▶ Add and subtract numbers mentally with increasingly large numbers *and decimals to two decimal places.* ▶ Add and subtract whole numbers with more than 4 digits *and decimals with two decimal places,* including using formal written methods (columnar addition and subtraction). ▶ Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. ▶ Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. ▶ *Solve addition and subtraction problems involving missing numbers.*	▶ *Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).* ▶ Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. ▶ Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. ▶ Establish whether a number up to 100 is prime and recall prime numbers up to 19. ▶ Recognise and use square (^{2}) and cube (^{3}) numbers, and notation. ▶ *Use partitioning to double or halve any number, including decimals to two decimal places.* ▶ Multiply and divide numbers mentally drawing upon known facts. ▶ Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes. ▶ Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers. ▶ Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context. ▶ *Use estimation/inverse to check answers to calculations; determine, in the context of a problem, an appropriate degree of accuracy.* ▶ Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign. ▶ Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.

Number – fractions, decimals and percentages

- Recognise mixed numbers and improper fractions and convert from one form to the other.
- Read and write decimal numbers as fractions (e.g. $0.71 = \frac{71}{100}$).
- *Count on and back in mixed number steps such as $1\frac{1}{2}$.*
- Compare and order fractions whose denominators are all multiples of the same number *(including on a number line)*.
- Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.
- Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.
- Add and subtract fractions with denominators that are the same and that are multiples of the same number *(using diagrams)*.
- Write statements > 1 as a mixed number (e.g. $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$).
- Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.
- Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal.
- *Solve problems involving fractions and decimals to three places.*
- Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}, \frac{1}{4}, \frac{1}{5}, \frac{2}{5}, \frac{4}{5}$ and fractions with a denominator of a multiple of 10 or 25.

Geometry – properties of shapes

- Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.
- Use the properties of rectangles to deduce related facts and find missing lengths and angles.
- Identify 3-D shapes from 2-D representations.
- Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.
- Draw given angles, and measure them in degrees (°).
- Identify:
  - angles at a point and one whole turn (total 360°).
  - angles at a point on a straight line and half a turn (total 180°).
  - other multiples of 90°.

Geometry – position and direction

- *Describe positions on the first quadrant of a coordinate grid.*
- *Plot specified points and complete shapes.*
- Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.

Measurement

- *Use, read and write standard units of length and mass.*
- Estimate *(and calculate)* volume ((e.g., using 1 cm³ blocks to build cuboids (including cubes)) and capacity (e.g. using water).
- *Understand the difference between liquid volume and solid volume.*
- *Continue to order temperatures including those below 0°C.*
- Convert between different units of metric measure.
- Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.
- Measure/calculate the perimeter of composite rectilinear shapes.
- Calculate and compare the area of rectangle, use standard units square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes.
- *Continue to read, write and convert time between analogue and digital 12 and 24-hour clocks.*
- Solve problems involving converting between units of time.
- Use all four operations to solve problems involving measure using decimal notation, including scaling.

Statistics

- *Complete and interpret information in a variety of sorting diagrams (including those used to sort properties of numbers and shapes).*
- Complete, read and interpret information in tables and timetables.
- Solve comparison, sum and difference problems using information presented in *all types of graph including* a line graph.
- *Calculate and interpret the mode, median and range.*

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Number – number and place value	Number – addition and subtraction	Number – multiplication and division
▶ *Count forwards or backwards in steps of integers, decimals, powers of 10.* ▶ Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit. ▶ Identify the value of each digit to three decimal places. ▶ *Identify, represent and estimate numbers using the number line.* ▶ *Order and compare numbers including integers, decimals and negative numbers.* ▶ *Find 0.001, 0.01, 0.1, 1, 10 and powers of 10 more/less than a given number.* ▶ Round any whole number to a required degree of accuracy. ▶ *Round decimals with three decimal places to the nearest whole number or one or two decimal places.* ▶ Multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places. ▶ Use negative numbers in context, and calculate intervals across zero. ▶ *Describe and extend number sequences including those with multiplication and division steps, inconsistent steps, alternating steps and those where the step size is a decimal.* ▶ Solve number and practical problems that involve all of the above.	▶ *Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).* ▶ *Select a mental strategy appropriate for the numbers in the calculation.* ▶ *Recall and use addition and subtraction facts for 1 (with decimals to two decimal places).* ▶ Perform mental calculations including with mixed operations and large numbers *and decimals.* ▶ *Add and subtract whole numbers and decimals using formal written methods (columnar addition and subtraction).* ▶ Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. ▶ Use knowledge of the order of operations to carry out calculations. ▶ Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. ▶ Solve problems involving all four operations, *including those with missing numbers.*	▶ *Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).* ▶ Identify common factors, common multiples and prime numbers. ▶ *Use partitioning to double or halve any number.* ▶ Perform mental calculations, including with mixed operations and large numbers. ▶ Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication. ▶ Multiply one-digit numbers with up to two decimal places by whole numbers. ▶ Divide numbers up to 4 digits by a two-digit whole number using the formal written methods of short or long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context. ▶ Use written division methods in cases where the answer has up to two decimal places. ▶ Use estimation *and inverse* to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. ▶ Use knowledge of the order of operations to carry out calculations. ▶ Solve problems involving all four operations, *including those with missing numbers.*

Mathematics
Key Learning Indicators of Performance: Year 6

Number – fractions, decimals and percentages	Geometry – properties of shapes	Measurement
▶ Compare and order fractions, including fractions > 1 *(including on a number line)*. ▶ Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. ▶ Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. ▶ Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375 and $\frac{3}{8}$). ▶ Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. ▶ Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$). ▶ Divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$). ▶ *Find simple percentages of amounts.* ▶ *Solve problems involving fractions.* ▶ Solve problems which require answers to be rounded to specified degrees of accuracy. ▶ Solve problems involving the calculation of percentages (e.g. of measures and such as 15% of 260) and the use of percentages for comparison.	▶ Compare/classify geometric shapes based on the properties and sizes. ▶ Draw 2-D shapes using given dimensions and angles. ▶ Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. ▶ Recognise, describe and build simple 3-D shapes, including making nets. ▶ Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. ▶ Find unknown angles in any triangles, quadrilaterals, regular polygons. **Geometry – position and direction** ▶ Describe positions on the full coordinate grid (all four quadrants). ▶ Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.	▶ Use, read and write standard units of length, mass, volume and time using decimal notation to three decimal places. ▶ Convert between standard units of length, mass, volume and time using decimal notation to three decimal places. ▶ Convert between miles and kilometres. ▶ Recognise that shapes with the same areas can have different perimeters and vice versa. ▶ Calculate the area of parallelograms and triangles. ▶ Recognise when it is possible to use formulae for area and volume of shapes. ▶ Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units (e.g. mm^3 and km^3). ▶ *Calculate differences in temperature, including those that involved a positive and negative temperature.* ▶ Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.

Ratio and proportion	Algebra	Statistics
▶ Solve problems involving the relative sizes of two quantities where missing values can be found using integer multiplication/division facts. ▶ Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. ▶ Solve problems involving similar shapes where the scale factor is known or can be found.	▶ Use simple formulae. ▶ Generate and describe linear number sequences. ▶ Express missing number problems algebraically. ▶ Find pairs of numbers that satisfy an equation with two unknowns. ▶ Enumerate possibilities of combinations of two variables.	▶ *Continue to complete and interpret information in a variety of sorting diagrams (including sorting properties of numbers and shapes).* ▶ Interpret and construct pie charts and line graphs and use these to solve problems. ▶ *Solve comparison, sum and difference problems using information presented in all types of graph.* ▶ Calculate and interpret the mean as an average.

LPDS National Curriculum Assessment Materials
Guidance for Using Scientific Knowledge and Conceptual Understanding and Working Scientifically Skills

These materials have been written by Lancashire Professional Development Service (LPDS) Teaching and Learning Consultants for Primary Science, which remains a core subject, in conjunction with the aims and the end of age phase (KS1, lower KS2, upper KS2) statutory requirements for 'Year Group Scientific Knowledge and Conceptual Understanding and Working Scientifically Skills' set out in the National Curriculum 2014.

The scientific knowledge and conceptual understanding for each year group show the National Curriculum 2014 statutory requirements for each unit. These can be used to support the assessment of knowledge and concepts across the primary phase.

The 'working scientifically skills' for each year group are presented in two grids. In each grid, the titles of each column (the white text in the orange boxes) are the statutory requirements for the end of KS1, end of lower KS2 or the end of upper KS2.

The grids show the range of 'working scientifically' skills as follows:

Grid 1
- Exploring / Observing
- Grouping and Classifying
- Questioning
- Research
- Modelling
- Collaborating

Grid 2
- Planning and Testing
- Using Equipment and Measures
- Communicating
- Conclusions / Considering the evidence:
  - Describing Results
  - Explaining Results
  - Trusting Results

(Please note the 'Modelling' and 'Collaborating' columns are non-statutory but support effective provision).

These materials can be used to assess science skills in conjunction with any curriculum including the LPDS National Curriculum Support Materials.

The 'working scientifically skills' grids will assist teachers with their understanding of what the skills might look like in different year groups and thus support them in making their teacher assessment judgements against the statutory statements from the National Curriculum 2014.

The National Curriculum Programmes of Study for each year group and advice for good science teaching have been used to support teachers with what 'working scientifically' looks like for the different types of skill in each year group. These have been made into skills ladders so teachers can see how the learning for each year group fits within the larger picture of progression.

The skills ladders can be used to help teachers make a judgement during the year as to whether they are **on track** to achieve the end of year expectation and at the end of the year as to whether children have achieved the expectations for that year group.

A child may not achieve every single bullet point of learning - teachers should make a judgement on a child's strengths and weaknesses in relation to skill development. Greater emphasis should be placed on the statements that have been underlined. Key vocabulary for 'working scientifically' has been highlighted in bold text in each year to support its progression and use throughout the primary phase.

The detail in the grids can be used to help support planning but **it is the underlined statements and the titles for each column** which provide a summary against which teachers can make an end of term / end of year judgement. For example, when considering the skill of questioning for a child in Y4, a teacher can consider all the text highlighted in the Y4 part of the questioning column but their judgement regarding whether the child is working at year group expectation is ultimately based on the statutory title 'LKS2 - can ask a relevant question' rather than how many of the bullet points are 'ticked off'.

It is not expected that every single bullet point in the 'working scientifically skills' grids is achieved but rather that these are used to support skill progression and assist in making a judgement against the statutory column titles.

It is important to note that a child can be on track to meet end of year expectations but can have a particular strength or need extra support with an aspect or skill. If this is a significant strength (or a significant weakness) across the majority of the skills then they could be assessed at working above (or below) year group expectation.

Below are some of the areas where a child might show particular strengths or where they might need more support in their learning.

- **Numeracy Skills within Science:** Data, measures, scales, tables, graphs, noticing patterns.
- **Literacy Skills within Science:** Using scientific vocabulary and common language effectively in sentences (verbally and written), recording their learning, background knowledge from their reading experience.
- **Thinking and Behaving like a Scientist:** Questioning, ideas and suggestions, planning investigations effectively, making decisions about what to do, carrying out practical science activities, linking the big ideas.

Remember, when making a judgement regarding skills, the titles in each column of the skills grids are for end of Y2, Y4 and Y6. For children in Y1, Y3 and Y5 teachers are using these to judge if they are **on track** to meet these expectations. They might not be there yet as they have another year to continue to develop them. The detailed content in each year group supports the year group expectation and provides evidence of strengths and areas requiring additional support for the next teacher within the age phase.

There is no specific number of times a child needs to demonstrate a particular skill. Teachers should use their professional judgement and consider whether a child can demonstrate and apply the skills specified for their year group both **consistently** and **independently** and **in different contexts**.

For mixed age classes, the scientific knowledge and conceptual understanding for a unit becomes the knowledge expectation for the whole class. For example, a mixed Y3 / 4 class might be learning about plants from the Y3 National Curriculum Programme of Study. The knowledge from this becomes the year group expectation for both the Y3 children **and** the Y4 children. The 'working scientifically' grids can then be used to ensure differentiation between the two age phases so teachers can ensure the skills are appropriate to the two different year groups being taught.

Science
Scientific Knowledge and Conceptual Understanding: Year 1 Expectations

Please Note: Much of the learning in Year 1 can be done throughout the year using the school and the local environment. For example plants can be observed to make a linked to seasonal change and weather at various different times. Materials could be linked to a different creative theme throughout the year. Key learning can also be covered as a blocked science unit in its own right to introduce or consolidate learning at other times.

Plants: Common Names and Basic Structure	Animals - Humans	Animals - Other Animals
▪ Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. ▪ Identify and describe the basic structure of a variety of common flowering plants, including trees (at least: flower, leaf, root, stem, trunk, seed, branch and petal).	▪ Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. 　▫ Recognise that humans are animals. 　▫ Compare and describe differences in their own features (eye, hair, skin colour, etc.). 　▫ Recognise that humans have many similarities.	▪ Identify and name a variety of common animals including some fish, some amphibians, some reptiles, some birds and some mammals. ▪ Identify and name a variety of common animals that are carnivores, herbivores and omnivores (i.e. according to what they eat). ▪ Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, and including pets). 　▫ Find out and describe how animals look different to one another. 　▫ Group together animals according to their different features. 　▫ Recognise similarities between animals: 　　Structure: head, body, way of moving, senses, body covering, tail. 　▫ Animals have senses to explore the world around them and to help them to survive. 　▫ Recognise that animals need to be treated with care and sensitivity to keep them alive and healthy. 　▫ Animals are alive; they move, feed, grow, use their senses and reproduce.

Material Properties – Everyday Materials	Light and Astronomy – Seasonal Change
▪ 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, rock, brick, paper and cardboard. ▪ 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.	▪ Observe and describe changes across the four seasons. ▪ Observe and describe weather associated with the seasons and how day length and temperature varies.

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Science
Scientific Knowledge and Conceptual Understanding: Year 2 Expectations

Please Note: There should be plenty of opportunities throughout the year for children to use the school/local environment to observe plant growth, changes in habitats across the seasons and life cycles of a variety of different animals (for example: chicks/other birds, tadpoles/frogs, caterpillars/butterflies, other mini-beasts, other young animals during trips to farms/zoos). This could be done through an ongoing/monthly nature journal to observe, record and review over a period of time. The unit of work on 'Animal survival and growth' can be covered in the same half term as work on 'Habitats' in order to link the concept of survival.

Environment - Living things and their habitats	Animals - Animal survival and growth	Health – How we grow and stay healthy
- 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. - Different kinds of plants and animals live in different kinds of places. - There are different kinds of habitat near school which need to be cared for - Habitats provide the preferred conditions for the animals/plants that live there (compare local habitats and less familiar examples). - Observe living things in their habitats during different seasonal changes.	- Notice that animals have offspring which grow into adults. - Find out about and describe the basic needs of animals for survival (water, food and air).	- Notice that humans have offspring which grow into adults. - Find out about and describe the basic needs of humans for survival (water, food and air). - Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. - Medicines can be useful when we are ill. - Medicines can be harmful if not used properly.

Plants – Plant growth	Material Properties – Uses of Materials
- Observe and describe how seeds and bulbs grow into mature plants. - Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy (and how changing these affects the plant). - Plants are living and eventually die.	- Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, water, rock, paper and cardboard for particular uses. - Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching (applying a force). - Some materials can be found naturally; others have to be made.

Science
Scientific Knowledge and Conceptual Understanding: Year 3 Expectations

Please Note: There should be plenty of opportunities throughout the year for children to use the school/local environment to observe plant lifecycles with a particular focus on the different parts of a plant (e.g. comparing fruits and seeds and looking for examples of pollination). This could be done through an ongoing/monthly nature journal to observe, record and review over a period of time.

Plants – Functions of Parts of a Plant	Animals - Health/Nutrition	Animals - Skeletons and Movement
- Identify, locate and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. - Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. - Investigate the way in which water is transported within plants. - Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. - Roots grow downwards and anchor the plant. - Water, taken in by the roots, goes up the stem to the leaves, flowers and fruit. - Nutrients (not food) are taken in through the roots. - Stems provide support and enable the plant to grow towards the light. - Plants make their own food in the leaves using energy from the sun. - Flowers attract insects to aid pollination. - Pollination is when pollen is transferred between plants by insects, birds, other animals and the wind. - Seeds are formed after the flowers are pollinated. - Many flowers produce fruits which protect the seed and/or aid seed dispersal. - Seed dispersal, by a variety of methods, helps ensure that new plants survive. - Plants need nutrients to grow healthily (either naturally from the soil or from fertiliser added to soil).	- 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. - An adequate and varied diet is beneficial to health (along with a good supply of air and clean water). - Regular and varied exercise *from a variety of different activities* is beneficial to health (focus on *energy in versus energy out*. Include information on making informed choices).	- Identify that humans and some other animals have skeletons and muscles for support, protection and movement. - Identify animals (vertebrates) which have a skeleton which supports their body, aids movement & protects vital organs (e.g. name and locate skull, backbone, ribs, bones for movement/limbs, pelvis and be able to name some of the vital organs protected). - Identify animals without internal skeletons/backbones (invertebrates) and describe how they have adapted other ways to support themselves, move & protect their vital organs. - Know how the skeletons of birds, mammals, fish, amphibians or reptiles are similar (backbone, ribs, skull, bones used for movement) and the differences in their skeletons. - Know that muscles, which are attached to the skeleton, help animals move parts of their body. - Explore how humans grow bigger as they reach maturity by making comparisons linked to body proportions and skeleton growth – e.g. do people with longer legs have longer arm spans? - Recognise that animals are alive; they move, feed, grow, use their senses and reproduce.

Material Properties - Rocks	Light and Astronomy - Light, reflections and shadows	Forces and Magnets
- 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 - Recognise that rocks and soils can feel and look different. - Recognise that rocks and soils can be different in different places/environments.	- Recognise that they need light in order to see things and that dark is the absence of light. - Notice that light is reflected from surfaces. - Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. - Recognise that shadows are formed when the light from a light source is blocked by a solid object. - Find patterns in the way that the size of shadows can change**.**	- Compare how some things move on different surfaces. - 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 (like and unlike poles). - Predict whether two magnets will attract or repel each other, depending on which poles are facing.

Science
Scientific Knowledge and Conceptual Understanding: Year 4 Expectations

Please Note: There should be plenty of opportunities throughout the year for children to use the school/local environment to observe and identify how a habitat changes. This could include a focus on the relationships between the plants and animals within a habitat. This could be done through an ongoing/monthly nature journal to observe, record and review over a period of time.

Environment – Living Things and Their Habitats

- Recognise that living things can be grouped in a variety of ways.
- Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.
- Recognise that environments can change and that this can sometimes pose dangers to living things.
  - Use and make identification keys for plants and animals.

Animals – Teeth, Eating and Digestion

- 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.
- Construct and interpret a variety of food chains, identifying producers, predators and prey (NB *Link with types of teeth and eating in this unit but this concept could be developed further in the yr4 Environment / habitats unit).*
  - Describe how teeth and gums have to be cared for in order to keep them healthy.

Material Properties and Changes – States of Matter

- 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.
  - Solids, liquids and gases can be identified by their observable properties.
  - Solids have a fixed size and shape (the size and shape can be changed but it remains the same after the action).
  - Liquids can pour and take the shape of the container in which they are put.
  - Liquids form a pool not a pile.
  - Solids in the form of powders can pour as if they were liquids but make a pile not a pool.
  - Gases fill the container in which they are put.
  - Gases escape from an unsealed container.
  - Gases can be made smaller by squeezing/pressure.
  - Liquids and gases can flow.

Sound

Vibrations
- Identify how sounds are made, associating some of them with something vibrating.
- Recognise that vibrations from sounds travel through a medium to the ear.
- Find patterns between the volume of a sound and the strength of the vibrations that produced it.
- Recognise that sounds get fainter as the distance from the sound source increases.
  - Recognise that sounds can be made in a variety of ways (pluck, bang, shake, blow) using a variety of things (instruments, everyday materials, body).
  - Sounds travel away from their source in all directions.
  - Vibrations may not always be visible to the naked eye.

Pitch
- Find patterns between the pitch of a sound and features of the object that produced it.
  - Sounds can be high or low pitched.
  - The pitch of a sound can be altered.
  - Pitch can be altered either by changing the material, tension, thickness or length of vibrating objects or changing the length of a vibrating air column.

Muffling/blocking sounds
- Recognise that vibrations from sounds travel through a medium to the ear.
  - Sounds are heard when they enter our ears (although the structure of the ear is not important key learning at this age phase).
  - Sounds can travel through solids, liquids and air/gas by making the materials vibrate.
  - Sound travel can be reduced by changing the material that the vibrations travel through.
  - Sound travel can be blocked.

Electricity

- 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.
  - Electricity can be dangerous.
  - Electricity sources can be mains or battery.
  - Batteries 'push' electricity round a circuit and can make bulbs, buzzers and motors work.
  - Faults in circuits can be found by methodically testing connections.
  - Drawings, photographs and diagrams can be used to represent circuits (although standard symbols need not be introduced until UKS2).

Science
Scientific Knowledge and Conceptual Understanding: Year 5 Expectations

Please Note: There should be plenty of opportunities throughout the year for children to use the school/local environment to observe and identify a variety of plant and animal life cycles. This could be done through an ongoing/monthly nature journal to observe, record and review a variety of examples over a period of time. The unit on 'Human life cycles' can be linked to PSHEE work on 'Relationships' and the Year 5 Science unit 'Habitats and life cycles' rather than being taught as a separate unit.

Environment - Observing Life cycles	Material Properties – Testing Material Properties	Material Changes - Reversible changes
- Describe 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. - Name, locate and describe the functions of the main parts of reproductive system of plants (stigma, stamen, petal, sepal, pollen, ovary).	- Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. - Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic (advantages and disadvantages). - Compare a variety of materials and measure their effectiveness (e.g. hardness, strength, flexibility, solubility, transparency, thermal conductivity, electrical conductivity). **Temperature and Thermal Insulation** - Heat always moves from hot to cold. - Some materials (insulators) are better at slowing down the movement of heat than others. - Objects/liquids will warm up or cool down until they reach the temperature of their surroundings.	- Know 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. - Demonstrate that dissolving, mixing and changes of state are reversible changes. - Changes can occur when different materials are mixed. - Some material changes can be reversed and some cannot. - Recognise that dissolving is a reversible change and recognise everyday situations where dissolving occurs. - Distinguish between melting and dissolving. - Mixtures of solids (of different particle size) can be separated by sieving. - Mixtures of solids and liquids can be separated by filtering if the solid is insoluble (un-dissolved). - Evaporation helps us separate soluble materials from water. - Changes to materials can happen at different rates (factors affecting dissolving, factors affecting evaporation – amount of liquid, temperature, wind speed, etc). - Freezing, melting and boiling changes can be reversed (revision from YR4).
		Material Changes – Irreversible 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 (producing a gas / fizzing).

Animals - Human Life Cycles	Light and Astronomy – Earth and Space	Forces – Effects on Movement
- Describe the changes as humans develop to old age. - Animals are alive; they move, feed, grow, use their senses, reproduce, breathe/respire and excrete.	- Describe the movement of the Earth, and other planets, relative to the Sun and each other in the solar system. - Describe the movement of the Moon relative to the Earth. - Describe Sun/Earth/Moon as approximately spherical bodies. - Use the idea of the Earth's rotation to explain day and night. - The Earth spins once around its own axis in 24 hours, giving day and night. - The Earth orbits the Sun in one year. - We can see the Moon because the Sun's light reflects off it. - The Moon orbits the Earth in approximately 28 days and changes to the appearance of the moon are evidence of this. - Use the Earth's movement in space to explain the apparent movement of the sun across the sky. - The Sun appears to move across the sky from East to West and this causes shadows to change during the day. - Changes to shadow length over a day or changes to sunrise and sunset times over a year are evidence supporting the movement of the Earth.	- Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. - Identify the effects of air resistance, water resistance and friction that act between moving surfaces (causing things to slow down) - Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. - There are different types of forces (push, pull, friction, air resistance, water resistance, magnetic forces, gravity) which have different effects on objects - Gravity can act without direct contact between the Earth and an object. - Friction, air resistance and water resistance can be useful or unwanted. - The effects of friction, air resistance and water resistance can be reduced or increased for a preferred effect. - More than one force can act on an object simultaneously (either reinforcing or opposing each other).

Science
Scientific Knowledge and Conceptual Understanding: Year 6 Expectations

Please Note: There should be plenty of opportunities throughout the year for children to use the school/local environment to observe and identify a variety of plants and animals that live there focusing on their adaptations for survival. This could be done through an ongoing/monthly nature journal to observe, record and review a variety of examples over a period of time and would support their learning and wider research in the 'Living Things and Their Habitats' unit and the 'Evolution and Inheritance' unit.

Living Things and their Habitats - Classification	Living Things and their Habitats – Evolution and Inheritance	Animals/Health – Exercise, Health and The Circulatory System
▪ 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. 　▫ Living things can be grouped into micro-organisms, plants and animals. 　▫ Vertebrates can be grouped as fish, amphibians, reptiles, birds and mammals. 　▫ Invertebrates can be grouped as snails and slugs, worms, spiders and insects. 　▫ Plants can be grouped as flowering plants (incl. trees and grasses) and non-flowering plants (such as ferns and mosses).	▪ 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.	▪ Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. ▪ Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function (in the long term and short term). ▪ Describe the ways in which nutrients and water are transported within animals, including humans. 　▫ The heart is a major organ and is made of muscle. 　▫ The heart pumps blood around the body through vessels and this can be felt as a pulse. 　▫ The heart pumps blood through the lungs in order to obtain a supply of oxygen. 　▫ Blood carries oxygen/essential materials to different parts of the body. 　▫ During exercise muscles need more oxygen so the heart beats faster and our breathing and pulse rates increase. 　▫ Animals are alive; they move, feed, grow, use their senses, reproduce, breathe/respire and excrete. 　▫ An adequate, varied and balanced diet is needed to help us grow and repair our bodies (proteins), provide us with energy (fats and carbohydrates) and maintain good health (vitamins and minerals). 　▫ Tobacco, alcohol and other 'drugs' can be harmful. 　▫ All medicines are drugs, not all drugs are medicines.

Light and Astronomy – How Light Travels		Electricity	
▪ Recognise 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 the light that travels from light sources to our eyes or from light sources to objects and then to our eyes (and represent this in simple diagrammatic form). ▪ Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.		▪ 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 (at least: cells, wires, switches, bulbs, buzzers and motors) when representing a simple circuit in a diagram. 　▫ Use/interpret circuit diagrams to construct a variety of more complex circuits predicting whether they will 'work'.	

	EXPLORING / OBSERVING	GROUPING AND CLASSIFYING	QUESTIONING	RESEARCH	MODELLING	COLLABORATING
Year 6	▪ Use correct scientific knowledge and understanding and relevant scientific language to discuss their observations and explorations (linked to Y6 PoS). ▪ Identify changes that have occurred over a very long period of time (evolution) and discuss how changes have impacted the world. ▪ Explore more abstract systems / functions / changes / behaviours and record their understanding of these (e.g. the relationship between diet, exercise, drugs, lifestyle and health; evolutionary changes; how light travels).	▪ Recognise the importance of classification to the scientific world and form a conclusion from their sorting and classifying. ▪ Compare and contrast more complex processes, systems, functions (e.g. sexual and asexual reproduction). ▪ Construct a classification key / branching database using more than two items. ▪ Compare and contrast things beyond their locality and discuss advantages / disadvantages, pros / cons of the similarities and differences. ▪ Use research* to identify and classify things. ▪ Use classification systems, keys and other information records [databases] to help classify or identify things.	▪ Recognise scientific questions that do not yet have definitive answers (linked to Y6 PoS). ▪ Refine a scientific question to make it testable i.e. ask a testable question which includes the change and measure variables, e.g. what would happen to … if we changed…? e.g. What effect would we have on … if we…? e.g. How would exercise affect the pulse rate? ▪ Use observations to suggest a further (testable or research) question. ▪ Independently ask a variety of scientific questions and decide the type of enquiry needed to answer them.	▪ Research how scientific ideas have developed over time and had an impact on our lives. ▪ Use evidence from a variety of sources to justify their ideas ▪ Recognise which secondary sources will be most useful to research their ideas and begin to separate opinion from fact. ▪ Interview people to find out information	▪ Make / perform and use their own versions of simple models to describe and explain scientific ideas (e.g. circulatory system drama, periscopes to explain how light travels, burglar alarm to explain components in a circuit).	▪ Propose their own ideas and make decisions with agreement in a group. ▪ Support, listen to and acknowledge others in the group. ▪ Check the clarity of each other's suggestions. ▪ Build on / add to someone else's idea to improve a plan or suggestion. ▪ Understand that it is okay to disagree with their peers and offer reasons for their opinion.
Year 5	▪ Use their developing scientific knowledge and understanding and relevant scientific language and terminology to discuss, communicate and explain their observations (incl. more abstract ideas from Y5 PoS (e.g. friction, air resistance, forces, Earth and space, reversible and irreversible changes). ▪ Evaluate their observations and suggest a further test, offer another question or make a **prediction.** ▪ Observe (including changes over time) and suggest a reason for what they notice.	▪ Suggest reasons for similarities and differences. ▪ Compare and contrast things beyond their locality and use these similarities and differences to help to classify (e.g. features of animals, life cycles of different living things, melting compared with dissolving, etc). ▪ Use secondary sources of information to identify and classify. ▪ Decide which sources of information (and / or equipment and / or test) to help identify and classify.	▪ Recognise scientific questions that do not yet have definitive answers (linked to Y5 PoS). ▪ Refine a scientific question so that it can be tested e.g. 'What would happen to… if we changed…?' ▪ Decide whether their questions can be answered by researching or by testing. ▪ Independently ask their own scientific questions taking some ownership for finding out the answers.	▪ Find out how scientific ideas have changed / developed over time (linked to Y5 PoS). ▪ Articulate and explain findings from their research using scientific knowledge and understanding. ▪ Make decisions about which information to use from a wide range of sources.	▪ Perform / create simple models to exemplify scientific ideas using scientific terminology where appropriate (e.g. spheres to represent movements of the Sun and Earth, solar system models, shadow clocks, a simple lever or mechanism).	▪ Propose their own ideas and make decisions with agreement in a group. ▪ Support, listen to and acknowledge others in the group e.g. Yes. I prefer that one too. ▪ Check the clarity of each other's suggestions e.g. are you saying you think this one is a herbivore? ▪ Build on / add to someone else's idea to improve a plan or suggestion. ▪ Understand that it is okay to disagree with their peers and offer a reasons for their opinion.
Year 4	▪ Suggest their own ideas on a concept and compare these with what they observe / find out. ▪ Use observations to suggest what to do next. ▪ Discuss ideas and develop descriptions from their observations using relevant scientific language and vocabulary (from Y4 PoS). ▪ Observe and record relationships between structure and function or between different parts of a processes (linked to Y4 PoS). ▪ Observe and record changes / stages over time (linked to Y4 PoS).	▪ Make a simple guide to local living things. ▪ Use guides or simple keys to classify / identify [animals, flowering plants and non-flowering plants]. ▪ Use their observations to identify and classify. ▪ Begin to give reasons for these similarities and differences. ▪ Record similarities as well as differences and / or changes related to simple scientific ideas or processes or more complex groups of objects / living things / events (e.g. evaporation and condensation, different food chains, different electrical circuits).	▪ Ask / raise their own relevant questions with increasing confidence and independence that can be explored, observed, tested or investigated further. ▪ Ask questions such as 'What will happen if…?" or 'What if we changed…? (linked with Y4 PoS). ▪ Choose / select a relevant question that can be answered [by research or experiment / test].	▪ Make decisions about which information to use from a wide range of sources and make decisions about how to present their research. ▪ Recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations.	▪ Make a visual representation or a model of something to represent something they have seen or a process that is difficult to see. ▪ Suggest their own ideas on a concept and compare these with models or images.	▪ Make some decisions about an idea within a group (e.g. I think we should find out by testing…) ▪ Increasingly support, listen to and acknowledge others in the group. ▪ Build on / add to someone else's idea to improve a plan. ▪ Understand that it is okay to disagree with their peers and offer reasons for their opinion.
	EXPLORING / OBSERVING *UKS2 - Developing a deeper understanding of a wide range of scientific ideas and encountering more abstract ideas.* *LKS2 - Developing their own ideas and their understanding of the world around them.*	**GROUPING AND CLASSIFYING** *UKS2 - Compare and contrast a variety of examples linked to UKS2 PoS.* *LKS2 - Compare and contrast a variety of examples linked to LKS2 PoS.*	**QUESTIONING** *UKS2 - Asking their own questions about scientific phenomena.* *LKS2 - Asking relevant questions.*	**RESEARCH** *UKS2 – Summarise research from a wide variety of sources and recognising that scientific ideas change and develop over time.* *LKS2 - Finding things out using a wide range of secondary sources of information.*	**MODELLING** *Non Statutory* *Using dance, drama or a visual aid to represent science in the real world.*	**COLLABORATING** *Non Statutory* *Interacting effectively as part of a group.*

KS1 KS2

Science
Year Group Expectations for Working Scientifically Skills (Grid 1)

Year 3	▪ <u>Observe and record relationships between structure and function</u> (linked to Y3 PoS). ▪ Observe and record changes /stages over time (linked to Y3 PoS). ▪ Explore / observe things in the local environment / real contexts and record observations (linked to Y3 PoS) – see 'Communicating' section also re links to vocabulary.	▪ <u>Decide ways and give reasons for sorting, grouping, classifying, identifying</u> things / objects, living things, processes or events based on specific characteristics. ▪ <u>Compare and contrast and begin to consider the relationships between different things</u> (e.g. structures of plants, functions of plant parts, diets, skeletons of humans and other animals, changes over time, etc.). ▪ Record similarities as well as differences (e.g. what do all skeletons have? as well as the differences between skeletons).	▪ Explore their own ideas about 'what if....?' scenarios e.g. humans did not have skeletons. ▪ Ask questions such as 'What if we tried....? or 'What if we changed...?' ▪ <u>Begin to understand that some questions can be tested in the classroom and some cannot.</u> ▪ Within a group suggest questions that can be explored, observed, tested or investigated further. ▪ <u>Within a group suggest relevant questions</u> about what they observe and about the world around them.	▪ <u>Find things out using a range of secondary sources of information</u> (e.g. books, photographs, videos and other technology).	▪ Act out or make a model of something to represent something in the real world using appropriate scientific vocabulary verbally.	▪ Begin to make some decisions about an idea within a group from a list of choices (e.g. let's put them all in a pile first OR I think we should try...). ▪ With help; support, listen to and acknowledge others in the group (e.g. Yes. I prefer that one too). ▪ Build on / add to someone else's idea. (e.g. we could use x as well as y). ▪ Begin to understand that it is okay to disagree with their peers and offer a reason for their opinion.
Year 2	▪ <u>Use simple scientific language from the Y2 PoS to talk about / **record** what they have noticed.</u> ▪ Use observations to make suggestions and / or ask questions. ▪ **Observe** and describe simple processes / cycles / changes with several steps (e.g. growth cycle, simple food chain, saying how living things depend on one another). ▪ **Observe** closely and communicate with increasing accuracy the features or properties of things in the real world.	▪ **Name / identify** common examples, some common features or different uses. ▪ **Sort** and **group** objects, materials or living things by observable and/or behavioural features. ▪ **Compare** and contrast... a variety of things [objects, materials or living things] - focusing on the similarities as well as the differences.	▪ <u>Raise their own logical questions based on or linked to things they have observed.</u> ▪ With help / scaffolds, begin to ask questions such as 'What will happen if...?"	▪ Talk about how useful the information source was and express opinion about findings. ▪ Make suggestions about who to ask or where to look for information. ▪ Ask people questions to help them answer their questions. ▪ <u>Use simple and appropriate secondary sources (such as books, photographs, videos and other technology) to find things out / find answers.</u>	▪ Act out something to represent something else about the world around us (e.g a life cycle).	▪ Share ideas in a group and listen to the ideas of others. ▪ Work cooperatively with others on a science task making some choices.
Year 1	▪ <u>Begin to use simple scientific language (from Y1 PoS) to talk about or **record** what they have noticed.</u> ▪ Use observations to make suggestions and / or ask questions. ▪ Look / **observe** closely and communicate changes over time. ▪ Look / **observe** closely and communicate the features or properties of things in the real world. ▪ **Observe** closely using their senses.	▪ **Name** / identify common examples and some common features. ▪ With help, decide how to sort and **group** objects, materials or living things. ▪ **Name** basic features of objects, materials and living things. ▪ <u>Say how things are similar or different.</u> ▪ **Compare** and contrast simple observable features / characteristics of objects, materials and living things.	▪ <u>Ask simple questions about what they notice about the world around them.</u> ▪ <u>Demonstrate curiosity by the questions they ask.</u>	▪ Ask people questions (e.g. an expert or hot-seating). ▪ <u>Use simple primary and secondary sources (such as objects, books and photographs) to find things out.</u>	▪ With help, follow movements (dance / drama) to act out their science.	▪ Share ideas in a group and listen to the ideas of others. ▪ Work with others on a science task.
	EXPLORING / OBSERVING *LKS2 - Developing their own ideas and their understanding of the world around them.* *KS1 - Observing closely* *Using their observations and ideas to suggest answers to questions.*	**GROUPING AND CLASSIFYING** *LKS2 - Compare and contrast a variety of examples linked to LKS2 PoS.* *KS1 - Compare and contrast a variety of examples linked to KS1 PoS.*	**QUESTIONING** *LKS2 - Asking relevant questions.* *KS1 - Asking simple questions.*	**RESEARCH** *LKS2 - Finding things out using a wide range of secondary sources of information.* *KS1 - Finding things out using secondary sources of information.*	**MODELLING** *Non Statutory* *Using dance, drama or a visual aid to represent science in the real world.*	**COLLABORATING** *Non Statutory* *Interacting effectively as part of a group.*

	PLANNING AND TESTING	USING EQUIPMENT AND MEASURES	COMMUNICATING	CONSIDERING THE RESULTS OF AN INVESTIGATION / WRITING A CONCLUSION		

Year 6

- Predict what a graph might look like before collecting results.
- Make a hypothesis where they say how one thing will affect another and give a reason for their suggestion with a developing understanding of the scientific concept.
- Identify **variables** to change, measure and keep the same in order for a test to be **fair.**
- Independently plan investigations and explain planning decisions.
- Decide when it is appropriate to carry out a **fair test** investigation, comparative test or alternative.

- Decide whether to **repeat** any **readings** and justify the reason for doing so.
- Make their own decisions about what measurements to take (and begin to identify the ranges used).
- Make, and act on, suggestions to control / reduce risks to themselves and others.
- Use equipment fit for purpose to take measurements which are increasingly **accurate** and precise.
- Decide the most appropriate equipment to use to collect data.

- Articulate understanding of the concept using scientific language and terminology when describing abstract ideas, observations and findings (linked to the Y6 PoS).
- Record data and results of increasing complexity using scientific diagrams and labels, recognised symbols, classification keys, tables, bar and line graphs, and models.
- Make decisions about how to present and explain their findings through talk, in written forms or in other ways (e.g. using technology).

- Spot unexpected results that do not fit the pattern (anomalies).
- Identify patterns in results collected and describe them using the **change and measure variables** (causal relationships) *(e.g. as we increased the number of batteries the brightness the bulb increased.)*

- Identify **evidence** that refutes or **supports** their ideas.
- Independently form a conclusion which draws on the **evidence** from the test (linked to Y6 PoS).
- Use scientific language and terminology (linked to Y6 PoS) to explain why something happened.

- Be able to suggest reasons for unexpected results (anomalies).
- Describe how to improve planning to produce more **reliable** results.
- Say how confident they are that their results are **reliable** and give a reason.

Year 5

- Carry our **fair tests** and other investigations with increasing independence.
- Suggest more than one possible prediction and begin to suggest which is the most likely. Justify their reason with some knowledge and understanding of the scientific concept.
- Make decisions about which **variables** to change, measure and keep the same (linked to the appropriate units in the Y5 PoS).
- Make most of the planning decisions for an investigation.
- Recognise when it is appropriate to carry out a **fair test**.

- Make their own decisions about what observations to make or measurements to use and how long to take them for (recognising the need for repeat readings on some occasions).
- Take measurements using a range of scientific equipment with increasing accuracy and using more complex scales / **units.**
- Identify possible risks to themselves and others and suggest ways of reducing these.
- Choose the most appropriate equipment and make **accurate** measurements.

- Use their developing scientific knowledge and understanding and relevant scientific language and terminology to communicate more abstract concepts (linked to Y5 PoS).
- Present and explain their findings through talk, in written forms or in other ways (e.g. using technology) for a range of audiences / purposes.
- Record data and results of increasing complexity using different formats e.g. tables, annotated scientific diagrams, classification keys, graphs and models.
- Make decisions about the most appropriate way of recording data.

- Describe straightforward patterns in results linking cause and effect e.g. using er or the word 'more' *(e.g. the longer, thinner shapes move through the water more quickly OR the larger the wings, the longer it takes the spinner to fall).*
- Look for / notice relationships between things and begin to describe these.
- Comment on the results and whether they **support** the initial **prediction.**

- Use their scientific knowledge and understanding and appropriate scientific language and terminology (linked to Y5 PoS) to explain their findings and data and answer their initial question.
- Draw a valid **conclusion** (explain *why* it happened) based on their data and observations (from Y5 PoS).

- Begin to recognise how repeated readings improve the **reliability** of results.
- Compare results with others and comment on how **reliable** they are.

Year 4

- Carry out simple **fair tests** with increasing confidence investigating the effect of something on something else (linked to Y4 PoS).
- Start to make their own decisions about the most appropriate type of science enquiry they might use to answer scientific questions *(is a fair test the best way to investigate their question?)*
- Make a **prediction** based on the knowledge acquired from previous explorations / observations and apply it to a new situation.
- Explain their planning decisions and choices.
- Make some of the planning decisions about what to change and measure / observe.
- Begin to recognise when a **fair test** is necessary.

- Begin to identify where patterns might be found and use this to begin to identify what data to collect.
- Make more of the decisions about what observations to make, how long to make them for and the type of equipment that might be used.
- Recognise obvious risks and how to keep themselves and others safe.
- Learn how to use new equipment, such as data loggers and measure temperature in degrees Celsius (°C) using a thermometer.
- Collect data from their own observations and measurements, using notes / simple tables / standard **units.**
- Make **accurate** measurements using standard **units** [and more complex units and parts of units] using a range of equipment and scales.

- Record findings using relevant scientific language and vocabulary (from Y4 PoS), including discussions, oral and written explanations, notes, drawings (annotated), pictorial representations, labelled diagrams, tables and bar charts [where intervals and ranges agreed through discussion], displays or presentations.
- Begin to select the most useful ways to collect, record, classify and present data from a range of choices.
- Make decisions on how best to communicate their findings in ways that are appropriate for different audiences.

- Notice / find patterns in their observations and data. (Describe the effect of something on something else.) *(e.g. as I lengthen the ruler I notice that the pitch gets lower).*
- With some independence, analyse results / observations by writing a sentence that matches the **evidence** i.e. deciding the important aspect of the result and summarising in a **conclusion** *(e.g. metals tend to be good conductors of electricity).*

- Begin to develop their ideas about relationships and interactions between things and explain them.
- Use relevant scientific language and vocabulary (from Y4 PoS) to begin to say / explain *why* something happened.

- Use results to suggest improvements, new questions and / or predictions for setting up further tests.
- Compare their results with others and give reasons why results might be different.

	PLANNING AND TESTING	**USING EQUIPMENT AND MEASURES**	**COMMUNICATING**	**CONSIDERING THE RESULTS OF AN INVESTIGATION / WRITING A CONCLUSION**		
	UKS2 - Using different types of scientific enquiry making decisions about and explaining choices for testing. *LKS2 - Making decisions about and setting up simple practical enquiries, comparative tests and fair test.*	*UKS2 - Increasing complexity and increasing accuracy and precision* *Make their own decisions about the data to collect.* *LKS2 - Making accurate measurements and gathering data.*	*UKS2 / LKS2 / KS1* *Reporting findings, recording data, presenting findings.* *Read, spell and pronounce scientific vocabulary correctly linked to the relevant year group.*	**DESCRIBING RESULTS / LOOKING FOR PATTERNS** *UKS2 - Looking for patterns analysing functions, relationships and interactions more systematically.* *LKS2 - Describing their findings/ results.*	**EXPLAINING RESULTS** *UKS2 - Draw conclusions based on / supported by evidence.* *LKS2 - Reporting on findings saying why something happened.*	**TRUSTING RESULTS** *UKS2 - Comment on how reliable the data is.* *LKS2 - Suggest improvements for further tests.*

	PLANNING AND TESTING	USING EQUIPMENT AND MEASURES	COMMUNICATING	DESCRIBING RESULTS / LOOKING FOR PATTERNS	EXPLAINING RESULTS	TRUSTING RESULTS
Year 3	▪ Help to decide about how to set up a simple **fair test** and begin to recognise when a test is not **fair**. ▪ Make a **prediction** based on everyday experience. ▪ With support / as a group, set up simple practical enquiries including comparative and **fair tests** e.g. make a choice from a list of a things (variables) to change when conducting a **fair test**. *(e.g. choose which magnets to compare and which method to use to test their strength).* ▪ As a group, begin to make some decisions about the best way of answering their questions. ▪ Find / suggest a practical way to compare things *e.g. rocks, magnets.*	▪ Collect data from their own observations and measurements using notes / simple tables / standard units. ▪ Help to make some decisions about what observations to make, how long to make them for, the type of simple equipment that might be used and how to work safely. ▪ Make simple **accurate** measurements using whole number standard **units**, using a range of equipment. ▪ Gather data in a variety of ways to help in answering questions. ▪ Use equipment **accurate**ly to improve the detail of their measurements / observations *(e.g. microscopes, measuring syringes, measuring cylinders, hand lenses).*	▪ Record and present findings using simple scientific language and vocabulary from the Y3 PoS. *including discussions, oral and written explanations, notes, annotated drawings, pictorial representations, labelled diagrams, simple tables, bar charts (using scales chosen for them), displays or presentations.* ▪ With scaffold / support record, and present data in a variety of ways to help in answering questions. ▪ Communicate their findings in ways that are appropriate for different audiences. (linked to Y3 PoS).	▪ With scaffold / support, describe and compare the effect of different factors on something *(e.g. we noticed that larger magnets are not always stronger).* ▪ With help, look for changes and simple patterns in their observations, data, chart or graph. ▪ Use their results to consider whether they met their **predictions**.	▪ Use their experience and some **evidence** or results to draw a simple **conclusion** to answer their original question. ▪ Write a simple explanation of why things happened (using the word 'because') and using simple scientific language and vocabulary from the Y3 PoS.	▪ Say whether what happened was what they expected and notice any results that seem odd. ▪ Begin to recognise when a test is not **fair** and suggest improvements.
Year 2	▶ Carry out simple comparative tests as part of a group, following a **method** with some independence. ▪ Make a simple prediction about what might happen and try to give a vague reason (even though it might not be correct). ▪ With support, make suggestions on a **method** for setting up a simple comparative test. ▪ Talk about a practical way to find answers to their questions.	▶ **Measure** using non-standard and simple standard measures (e.g. cm, time) with increasing accuracy. ▶ Begin to make decisions about which equipment to use. ▶ Correctly and safely use **equipment** provided to make observations and/or take simple measurements.	▶ **Record** and communicate their findings in a range of ways to a variety of audiences. ▶ Use simple scientific language with increasing accuracy (from Y2 PoS). ▶ **Record** simple data with some accuracy to help in answering questions; – With support or using frameworks, make decisions about how to complete a variety of tables/charts *(e.g. a 2 column table,* tally charts, Venn diagram, pictograms, block graphs with 1:1 scale).* – Present findings in a class displays. – Sequence / annotate photographs of change over time.* ▪ Produced increasingly detailed drawings which are labelled / annotated.	▶ With guidance, begin to notice **patterns** in their data *e.g. order their findings, sequence best to worst, say what happened over time, etc.* ▪ Recognise if **results** matched **predictions** (say if results were what they expected). ▶ Use their recordings to talk about and describe what has happened.	▶ Begin to use simple scientific language (from Y2 PoS) to explain what they have found out. ▪ Give a simple, logical reason why something happened *(e.g. I think … because…).*	▶ Begin to discuss if the test was un**fair**.
Year 1	▶ With help, **carry out** a simple test / comparative test. ▪ With help, make a simple prediction or suggestion about what might happen. ▪ Begin to suggest some ideas e.g. choose which equipment to use, choose which materials to test from a selection. ▪ **Talk** about ways of setting up a test.	▶ **Measure** using non-standard units e.g. how many lolly sticks / cubes / handfuls, etc. ▪ Observe closely, using simple **equipment** (e.g. hand lenses, egg timers). ▪ Use senses to **compare** different textures, sounds and smells.	▪ Communicate their ideas to a range of audiences in a variety of ways. ▪ Complete a pre-constructed table / chart using picture records or simple words. ▪ Contribute to a class display. ▪ Add annotations to drawings or photographs. ▪ Begin to use some simple scientific language from Y1 PoS. ▪ **Record** simple visual representations of observations made.	▪ Use recordings to talk about and describe what happened. ▪ Sequence photographs of an event / observation.	▪ Begin to use simple scientific language (from Y1 PoS) to talk about what they have found out or why something happened.	▶ N/A in Y1.

PLANNING AND TESTING	USING EQUIPMENT AND MEASURES	COMMUNICATING	CONSIDERING THE RESULTS OF AN INVESTIGATION / WRITING A CONCLUSION		
LKS2 - Making decisions about and setting up simple practical enquiries, comparative tests and fair tests. *KS1 - Performing simple tests.*	*LKS2 - Making accurate measurements and gathering data.* *KS1 - Using simple equipment and gathering data to help in answering their questions.*	*UKS2 / LKS2 / KS1* *Reporting findings, recording data, presenting findings.* *Read, spell and pronounce scientific vocabulary correctly linked to the relevant Year Group.*	**DESCRIBING RESULTS / LOOKING FOR PATTERNS** *LKS2 - Describing their findings / results.* *KS1 - Talk about what happened / what they noticed.*	**EXPLAINING RESULTS** *LKS2 - Reporting on findings saying why something happened.* *KS1 - Talk about what they found out.*	**TRUSTING RESULTS** *LKS2 - Suggest improvements for further tests.* *KS1 – Beginning to spot when a method is not fair.*

These materials have been written by Lancashire Professional Development Service (LPDS) Teaching and Learning Consultants for the foundation subjects in conjunction with the aims and statutory requirements set out in the National Curriculum 2014.

The 'end of year expectations' for each subject have been written as statements for each year group and are presented in a grid. This will enable teachers to reflect on the expectations for a specific year group, whilst being aware of the expectations for the year groups below and above.

The titles at the bottom of the grids have been taken from the National Curriculum 2014 requirements for KS1 and KS2. Communication has been included in some subject grids as the National Curriculum states '*Teachers should develop pupils' spoken language, reading, writing and vocabulary as integral aspects of the teaching of every subject*'. *(NC2014 p10)*

Teachers can use these statements to assess progress and to make an accurate judgement on a child's attainment at the end of each year. Using the end of year expectation statements to make an overall judgement about a child's achievement in each of the foundation subjects will support class teachers, subject leaders and senior managers to track a child's progress through a key stage in relation to the programmes of study requirements set out in National Curriculum 2014.

When making a judgement as to whether a child has achieved the year group statements in each of the foundation subjects, teachers should build their knowledge of what a child can do over the course of the year, and then consider whether a child can apply and understand the skills and processes, knowledge, understanding specified in the relevant programme of study, consistently and independently in different contexts.

The statements within each year group are not hierarchical, and should not be used as a checklist. Evidence from a range of contexts (observations, pupil work, discussion, collaboration, planning, etc.) should be used to formulate a 'best fit' judgement as to whether a child has achieved the year group expectations outlined across the columns in the grid.

The end of year group expectations are cumulative – what is learnt in one year group should continue to be used in the next.

The assessment grids should be used in conjunction with the programmes of study specified in the National Curriculum 2014 for each foundation subject and identified within a school's own curriculum. Teachers need to reflect on the key learning for each foundation subject as outlined in the curriculum to ensure effective teaching and assessment is in place across the primary phase.

Year 6	▶ Independently investigate a range of starting points for their work, and confidently develop their ideas further. ▶ Record their thoughts and experiences in a sketch book / 'ideas journal', and review and revisit these ideas as their work develops. ▶ Are confident to work creatively, adapting ideas, and taking risks when choosing tools, materials and media. ▶ Confidently use language appropriate to the chosen art form, to help them to explain their ideas.	▶ Critically analyse the styles of a range of artists, craft makers or designers and use this to inform their own work. ▶ Explain how a chosen artist or art form has contributed to the culture and /or history of a specific nation.	▶ Use their knowledge of drawing, painting, sculpture and other art, craft and design techniques, imaginatively to create their own style, e.g. use spray paint on canvas. ▶ Develop their own style when working with a wide range of tools and materials, e.g. working into prints using their own choice of media such as pens, ballpoint pens, paints.	▶ Use language specific to a range of techniques to identify effective and ineffective features and use this to inform and evaluate their own work. ▶ Use sketch book / 'ideas journal' to adapt and critically evaluate their work as their ideas develop. ▶ Annotations reflect their critical evaluations and development of ideas. ▶ Reflect on the ways in which their imaginative work has developed from a range of starting points.
Year 5	▶ Investigate a range of starting points for their work, and choose which idea to develop further. ▶ Record their thoughts and experiences in a sketch book / 'ideas journal', and annotate these in order to aid the development of their ideas. ▶ Explain how they are developing their ideas as they work, and use language appropriate to the chosen art form. ▶ Use creative thinking to adapt an initial idea, e.g. experiment with alternative colour palette.	▶ Critically analyse the styles of artists, craft makers or designers and use this to inform their own work. ▶ Understand how a chosen artist or art form has contributed to the culture and / or history of a specific nation.	▶ Use their knowledge of drawing, painting, sculpture and other art, craft and design techniques to work creatively e.g. adapting the style of an artist to create their own effect. ▶ Are confident when working with a wide range of tools and materials to create different effects, e.g. use a graphics package to manipulate an image by applying a filter.	▶ Use appropriate language when comparing ideas, methods and approaches in their own and others' work. ▶ Describe what they think and feel about their own and others' work and how this might influence their designs. ▶ Use sketch book /'ideas journal' to evaluate and adapt their work as their ideas develop; make annotations in their books to show their ongoing evaluations and how they might develop their work further.
Year 4	▶ Investigate different starting points for their work, and choose which idea to develop further. ▶ Record their thoughts and experiences in a sketch book / 'ideas journal', and begin to annotate these. ▶ Explain how they are developing their ideas as they work, and are beginning to use language appropriate to the chosen style of art. ▶ Use creative thinking to begin to adapt an initial idea, e.g. experiment with alternative colour palette.	▶ Discuss and analyse the styles of artists, craft makers or designers and use this to inform their own work. ▶ Understand the historical and / or cultural significance of the work of a chosen artist / art form.	▶ Use learnt techniques in drawing, painting, sculpture and other art, craft and design in different contexts and with a variety of materials, e.g. use knowledge of weaving to create a willow sculpture. ▶ Demonstrate control of a range of tools and materials to create desired effects, e.g. when drawing use different grades of pencil to create variations in tone.	▶ Compare ideas, methods and approaches in their own and others' work, e.g. talk about the features they like and the changes they would make to a piece of art work. ▶ Use sketch book / 'ideas journal' to adapt their work as their ideas develop; make annotations in their books to describe how they might develop their work further.

KS1 ▶ KS2 ▶

Art and Design
End of Year Expectations

	Produce creative work, exploring their ideas and recording their experiences	Know about great artists, craft makers and designers and understand the historical and cultural development of their art forms	Become proficient in drawing, painting, sculpture and other art, craft and design techniques	Evaluate and analyse creative works using the language of art, craft and design
Year 3	▸ Choose their own starting point from a range of ideas e.g. a visit to an art gallery, an artefact, digital images, experiences. ▸ Begin to record their thoughts and experiences in a sketch book / 'ideas journal'. ▸ Explain the reasons for their ideas, and discuss and answer questions about how their ideas have developed. ▸ Show confidence and independence when working creatively e.g. with a range of media on different scales.	▸ Discuss the styles of artists, craft makers or designers and use this to inform their own work. ▸ Begin to understand the historical and/or cultural significance of a chosen artist /art form.	▸ Beginning to use learnt techniques in drawing, painting, sculpture and other art, craft and design in different contexts, e.g. work on different scales both independently and collaboratively. ▸ Demonstrate control of chosen tools and materials to create a desired effect, e.g. carve a design into a printing block.	▸ Compare ideas, methods and approaches in their own and others' work, e.g. talk about the features they like in a piece of art work. ▸ Use sketch book / 'ideas journal' to adapt their work as their ideas develop, and discuss this with others.
Year 2	▸ Develop and record their ideas through painting, drawing, sculpture in response to first hand observations, e.g. real objects, photographs, artefacts, and experiences. ▸ Talk about and answer questions about the starting point, and choices they have made, e.g. chosen tools, media, materials. ▸ Show confidence in working creatively e.g. with a range of media on different scales.	▸ Recognise the styles of artists, craft makers or designers and use this to inform their own work. ▸ Talk about the similarities and differences between different artists, craft makers or designers.	▸ Confidently use drawing, painting, sculpture and other art, craft and design techniques to explore the use of line, texture, colour, shape to create different effects, e.g. cross hatching with felt tip pens. ▸ Begin to demonstrate control of tools and materials of their choice to create a desired effect, e.g. select, cut and shape faux fur fabric for a tiger hand puppet.	▸ Talk about the techniques, materials and equipment used in their work and the work of others, e.g. 'I have used a cotton bud to add dots'. ▸ Describe what they like about their own work and the work of others using appropriate language e.g. 'I like the way a fine tip brush is used to add detail'. ▸ Adapt and make changes to their work and the tools they use as it develops. ▸ Describe how they have changed and adapted their work for a specific purpose, e.g. use of specific tools to create more texture.
Year 1	▸ Explore and record their own ideas through painting, drawing, sculpture, in response to first hand observations, e.g. real objects, pictures, artefacts, and experiences. ▸ Talk about their ideas and the choices they have made, e.g. chosen tools, media, materials. ▸ Beginning to work creatively e.g. with a range of media on different scales.	▸ Describe what they think and feel about the work of a chosen artist, craft maker or designer. ▸ Begin to talk about the style of a chosen artist, craft maker or designer.	▸ Begin to use drawing, painting, sculpture and other art, craft and design techniques to explore the use of line, texture, colour, shape to create different effects, e.g. to apply acrylic paint thickly to add texture. ▸ Begin to demonstrate control of given tools and materials to create a desired effect, e.g. change the size of brushes in a simple graphics package.	▸ Describe some of the art and design techniques they have used in their work, e.g. painting, collage, printing, drawing and sculpture. ▸ Talk about the features they like in their own work and in the work of others. ▸ Talk about what they might change in their own work.

KS1 KS2

Computing
End of Year Expectations

Year 6	▶ Be competent users of technology using it safely, respectfully and responsibly and know about digital footprints and 'strong' passwords. ▶ Demonstrate that they can identify the risks involved with content and contact and they know a wide range of ways of reporting any concerns they have. ▶ Understand what acceptable and unacceptable online behaviour is. ▶ Use strategies to verify and evaluate the reliability and accuracy of information on the internet and understand what copyright and plagiarism is and how it relates to their work.	▶ Independently select, use and combine a wide range of software on a variety of devices. ▶ Design and create a range of digital assets such as programs, systems and multimedia content for a defined purpose and audience. ▶ Use advanced searches including the use of operators. ▶ Create spreadsheet models to investigate real life problems, using their knowledge to make predictions.	▶ Know how search engines work and what 'ranking' is when related to search engines. ▶ Design and create more complex programs using sequence, repetition, selection and variables appropriately. ▶ Develop their computational thinking can demonstrate that they can decompose and evaluate their tasks and correct errors in their algorithms and programs. ▶ Be confident in their knowledge of inputs and outputs and plan and write programs to solve tasks to control external devices such as sensors and motors. ▶ Know how different computer networks work, including the roles of the components and the opportunities and benefits that they offer for communication and collaboration. ▶ Understand the difference between the internet and internet services.
Year 5	▶ Use technology safely, respectfully and responsibly and continue to develop skills to identify risks involved with contact and content including developing an understanding of digital footprints. ▶ Know a range of ways of reporting concerns about content and contact involving the internet and other communication technologies. ▶ Understand what acceptable and unacceptable online behaviour is. ▶ Use strategies to verify the reliability and accuracy of information on the internet and understand copyright.	▶ Select, use and combine a range of software and use a wider range of devices to create a variety of digital assets such as programs, systems, databases, spreadsheets and multimedia content for a defined purpose. ▶ Understand about the use of operators in searching and continue developing their effective search techniques by using Boolean operators in their searches. ▶ Create simple spreadsheet models to investigate real life problems.	▶ Design and write programs using sequence, repetition, selection and variables. ▶ Develop greater understanding of how to use selection and repetition in more complex programs. ▶ Understand how search engines work. ▶ Further develop their computational thinking showing they can plan and decompose tasks; explain how the algorithms they write work and correct errors in their programs. ▶ Plan and write programs to control external devices such as sensors and motors and explain about the inputs and outputs used. ▶ Have an understanding of how a computer network works and the opportunities that it offers for communication and collaboration.
Year 4	▶ Use technology respectfully, responsibly and safely, knowing how to keep their information and passwords secure. ▶ Know different ways of reporting concerns about content and contact involving the internet and other communication technologies. ▶ Have a greater understanding of what is acceptable and unacceptable online behaviour. ▶ Start to develop strategies to verify the reliability and accuracy of information on the internet and develop an awareness of copyright.	▶ Use and combine a variety of software and devices with increasing independence, to create a range of digital assets such as programs, databases, systems and multimedia content. ▶ Understand how Boolean operators can change searches and select appropriate information for their tasks. ▶ Use models and simulations to produce graphs and explore patterns and relationships.	▶ Design and write more complex algorithms and programs using sequence, repetition and selection. ▶ Further develop their computational thinking to help debug their programs and design and solve problems and tasks. ▶ Have a simple understanding of how search engines work. ▶ Develop their understanding of inputs and outputs further, demonstrating how they can use programs to control external devices such as sensors, motors and robots. ▶ Understand the difference between the internet and World Wide Web.

KS1 KS2

Computing
End of Year Expectations

	Digital Literacy	Information Technology	Computer Science
Year 3	- Use technology safely and respectfully and have an understanding of how to keep information secure. - Realise the importance of reporting any concerns they have using the internet and other communication technologies, and know some ways in which they can do it. - Develop an understanding of what is acceptable and unacceptable online behaviour. - Realise that not all information on the internet is trustworthy and there is a need to verify its reliability.	- Use a variety of software and devices to create digital assets such as programs, graphs and multimedia content for a defined purpose. - Develop their search strategies further by refining their use of keywords and starting to use appropriate key phrases and questions. - Use more complex simulations and understand the effects of changing variables.	- Plan and write algorithms and programs using sequence and repetition and further develop their computational thinking strategies to solve problems and errors in their algorithms and programs. - Have knowledge and experience of using a range of different inputs and outputs. - Describe some of components of a computer network and some of the ways in which computer networks can be used.
Year 2	- Know their responsibilities from their school's acceptable use policy and how to report any concerns they have. - Recognise situations using technology and the internet involving content and contact that are not safe and know where to go for help. - Begin to develop an understanding of the importance of computers and the internet to communicate. - Develop their knowledge of the technology used in everyday life in a range of situations and be able to discuss their ideas.	- Use technology with purpose to create, store, organise, retrieve and manipulate digital content. - Learn to make a range of simple digital assets such as presentations, movies, audio files and graphs. - Navigate the web and carry out simple searches using suitable search engines and begin to understand that not everything on the internet is true. - Use simple simulations and understand how they work.	- Use algorithms and know that they can be implemented as programs on devices. - Know what debugging is and find errors in their programs. - Understand that programs execute by following a precise set of instructions. - Create simple programs and further develop their strategies and logical thinking to find bugs and predict outcomes in their algorithms and programs.
Year 1	- Recognise common uses of information technology beyond school. - Understand the rules and responsibilities outlined by the school's acceptable use policy and begin to understand where to go for help when they have concerns. - Develop an understanding of how to keep their personal information private and understand they need to use technology safely and respectfully.	- Use technology with support, to create, store and retrieve digital content such as text and images. - Use a simple search to find information or files. - Develop understanding of how simulations work through exploring simple examples.	- Understand what algorithms are and develop strategies to help find bugs in them. - Make very simple programs.
	Digital Literacy	**Information Technology**	**Computer Science**

KS1   KS2

Year 6	▶ Plan the sequence of work. ▶ Devise step by step plans which can be read / followed by someone else. ▶ Use exploded diagrams and cross-sectional diagrams to communicate ideas.	▶ Make prototypes. ▶ Use researched information to inform decisions. ▶ Produce detailed lists of ingredients / components / materials and tools. ▶ Refine their product – review and rework / improve.	▶ Identify the strengths and weaknesses of their design ideas. ▶ Report using correct technical vocabulary. ▶ Discuss how well the finished product meets the design criteria having tested on/discussed outcomes with the user. ▶ Understand how key people have influenced design in a variety of contexts. ▶ Investigate key events and individuals in design and technology.	▶ Use the correct vocabulary appropriate to the project. ▶ Join materials using appropriate methods. ▶ Create 3=-D textile products using pattern pieces. ▶ Understand pattern layout with textiles. ▶ Cut strip wood, dowel, square section wood accurately to 1mm. ▶ Build frameworks to support mechanisms. ▶ Stiffen and reinforce complex structures. ▶ Use mechanical systems such as cams, pulleys and gears. ▶ Use electrical systems such as motors and switches. ▶ Program, monitor and control using ICT.	▶ Understand and apply the principles of a healthy and varied diet. ▶ Choose ingredients to support healthy eating choices when designing their food products. ▶ Prepare and cook a variety of mostly savoury dishes using a range of cooking techniques.
Year 5	▶ Record ideas using annotated diagrams. ▶ Use models, kits and drawings to help formulate design ideas. ▶ Sketch and model alternative ideas. ▶ Decide which design idea to develop.	▶ Develop one idea in depth. ▶ Select from and use a wide range of tools. ▶ Cut accurately and safely to a marked line. ▶ Select from and use a wide range of materials.	▶ Research and evaluate existing products. ▶ Consider user and purpose. ▶ Consider and explain how the finished product could be improved related to design criteria. ▶ Investigate key events and individuals in design and technology.		▶ Join and combine a widening range of ingredients. ▶ Select and prepare foods for a particular purpose. ▶ Know where and how ingredients are grown and processed.
Year 4	▶ Record the plan by drawing using annotated sketches. ▶ Use prototypes to develop and share ideas. ▶ Consider aesthetic qualities of materials chosen. ▶ Use CAD where appropriate.	▶ Prepare pattern pieces as templates for their design. ▶ Select from techniques for different parts of the process.	▶ Draw / sketch existing products in order to analyse and understand how products are made. ▶ Identify the strengths and weaknesses of their design ideas in relation to purpose / user. ▶ Consider and explain how the finished product could be improved. ▶ Investigate key events and individuals in design and technology.	▶ Use an increasingly appropriate technical vocabulary for tools materials and their properties. ▶ Understand seam allowance. ▶ Prototype a product. ▶ Sew on buttons and make loops. ▶ Strengthen frames with diagonal struts. ▶ Measure and mark square section, strip and dowel accurately to 1cm. ▶ Incorporate a circuit into a model. ▶ Use electrical systems such as switches bulbs and buzzers. ▶ Use ICT to control products. ▶ Use linkages to make movement larger or more varied.	▶ Make healthy eating choices – use the *Eatwell plate*. ▶ Understand seasonality. ▶ Know where and how ingredients are reared and caught. ▶ Prepare and cook using different cooking techniques.

Design and Technology
End of Year Expectations

	Design	Make	Evaluate	Technical Knowledge (Select as appropriate to the focus of the design and technology focuses in the year group)	Cooking and Nutrition
Year 3	► Develop more than one design or adaptation of an initial design. ► Plan a sequence of actions to make a product. ► Think ahead about the order of their work and decide upon tools and materials. ► Propose realistic suggestions as to how they can achieve their design ideas.	► Select from a range of tools for cutting, shaping, joining and finishing. ► Use tools with accuracy. ► Select from materials according to their functional properties. ► Use appropriate finishing techniques.	► Investigate similar products to the one to be made to give starting points for a design. ► Research needs of user. ► Decide which design idea to develop. ► Consider and explain how the finished product could be improved. ► Discuss how well the finished product meets the user's design criteria. ► Investigate key events and individuals in design and technology.	► Use an increasingly appropriate technical vocabulary for tools materials and their properties. ► Understand seam allowance. ► Prototype a product. ► Sew on buttons and make loops. ► Strengthen frames with diagonal struts. ► Measure and mark square section, strip and dowel accurately to 1cm. ► Incorporate a circuit into a model. ► Use electrical systems such as switches bulbs and buzzers. ► Use ICT to control products. ► Use linkages to make movement larger or more varied.	► Follow instructions / recipes. ► Join and combine a range of ingredients. ► Begin to understand the food groups on the *Eatwell Plate*.
Year 2	► Propose more than one idea for their product. ► Use ICT to communicate ideas. ► Use drawings to record ideas as they are developed. ► Add notes to drawings to help explanations.	► Discuss their work as it progresses. ► Select and name the tools needed to work the materials. ► Explain which materials they are using and why.	► Decide how existing products do / do not achieve their purpose. ► Discuss how closely their finished product meets their own design criteria.	► Start to use technical vocabulary. ► Cut out shapes which have been created by drawing round a template. ► Join materials in a variety of ways. ► Decorate using a variety of techniques. ► Know some ways of making structures stronger. ► Show how to stiffen some materials.	► Cut, peel, grate, chop a range of ingredients. ► Work safely and hygienically. ► Know about the *Eatwell Plate*. ► Understand where food comes from.
Year 1	► Use pictures and words to convey what they want to design / make. ► Explore ideas by rearranging materials. ► Select pictures to help develop ideas. ► Use mock-ups e.g. recycled material trial models to try out their ideas.	► Select materials from a limited range. ► Explain what they are making. ► Name the tools they are using.	► Explore existing products and investigate how they have been made (including teacher-made examples). ► Talk about their design as they develop and identify good and bad points. ► Say what they like and do not like about items they have made and attempt to say why.	► Know how to make a simple structure more stable. ► Attach wheels to a chassis using an axle. ► Know some different ways of making things move in a 2-D plane.	► Group familiar food products e.g. fruit and vegetables. ► Cut and chop a range of ingredients. ► Work safely and hygienically. ► Know about the need for a variety of foods in a diet.

KS1 KS2

Geography
End of Year Expectations

Year 6	▶ Name and locate an extensive range of places in the world including globally and topically significant features and events.	▶ Recognise patterns in human and physical features and understand some of the conditions, processes or changes which influence these patterns. ▶ Explain some links and interactions between people, places and environments.	▶ Ask and respond to questions that are more causal e.g. What happened in the past to cause that? How is it likely to change in the future? ▶ Make predictions and test simple hypotheses about people, places and geographical issues.	▶ Use a range of numerical and quantitative skills to analyse, interpret and present data collected from fieldwork observations, measurements and recordings.	▶ Interpret a wider range of geographical information and maps including scale, projections, thematic, and digital maps. ▶ Recognise an increasing range of Ordnance Survey symbols on maps and locate features using six-figure grid references.	▶ Develop their views and attitudes to critically evaluate responses to local geographical issues or global issues and events. ▶ Communicate geographical information using a wide range of methods including writing at increasing length.
Year 5	▶ Name and locate an increasing range of places in the world including globally and topically significant features and events.	▶ Use geographical language to identify and explain key aspects of human and physical features and patterns as well as links and interactions between people, places and environments. ▶ Demonstrate understanding of how and why some features or places are similar or different and how and why they change.	▶ Ask and respond to questions that are more causal e.g. Why is that happening in that place? Could it happen here? ▶ Recognise geographical issues affecting people in different places and environments.	▶ Observe, measure, and record human and physical features using a range of methods e.g. sketch maps, plans, graphs, and digital technologies.	▶ Use a range of maps and other sources of geographical information and select the most appropriate for a task. ▶ Demonstrate an understanding of the difference between Ordnance Survey and other maps and when it is most appropriate to use each.	▶ Express and explain their opinions on geographical and environmental issues and recognise why other people may think differently. ▶ Choose from a range of methods e.g. digital maps, plans, graphs and presentations when communicating geographical information.
Year 4	▶ Name and locate a wider range of places in their locality, the UK and wider world including some globally significant features.	▶ Use geographical language to identify and explain some aspects of human and physical features and patterns. ▶ Describe how features and places change and the links between people and environments.	▶ Ask and respond to more searching geographical questions including 'how?' and 'why?' ▶ Identify and describe similarities, differences and patterns when investigating different places, environments and people.	▶ Observe, record, and explain physical and human features of the environment.	▶ Use a range of sources including digital and Ordnance Survey maps, atlases, globes and satellite images to research geographical information. ▶ Recognise Ordnance Survey symbols on maps and locate features using four-figure grid references.	▶ Express their opinions on environmental issues and recognise that other people may think differently. ▶ Communicate geographical information through a range of methods including digital maps, plans, graphs and presentations.

KS1 KS2

Geography
End of Year Expectations

	Locational and Place knowledge	Human and Physical Geography	Geographical Skills: Enquiry and Investigation	Geographical Skills: Fieldwork	Geographical Skills: Interpret a Range of Sources of Geographical Information	Geographical Skills: Communicate Geographical Information
Year 3	▶ Name and locate a wider range of places in their locality, the UK and wider world.	▶ Use geographical language to describe some aspects of human and physical features and patterns. ▶ Make observations about places and features that change over time.	▶ Ask and answer more searching geographical questions when investigating different places and environments. ▶ Identify similarities, differences and patterns when comparing places and features.	▶ Observe, record, and name geographical features in their local environments.	▶ Use a range of sources including digital maps, atlases, globes and satellite images to research and present geographical information. ▶ Use the eight compass points and recognise some Ordnance Survey symbols on maps.	▶ Express their opinions on environmental issues and recognise how people can affect the environment both positively and negatively. ▶ Communicate geographical information through a range of methods including the use of ICT.
Year 2	▶ Name and locate significant places in their locality, the UK and wider world.	▶ Describe places and features using simple geographical vocabulary. ▶ Make observations about features that give places their character.	▶ Ask and answer simple geographical questions when investigating different places and environments. ▶ Describe similarities, differences and patterns e.g. comparing their lives with those of children in other places and environments.	▶ Identify seasonal and daily weather patterns. ▶ Develop simple fieldwork and observational skills when studying the geography of their school and local environment.	▶ Use a range of sources such as maps, globes, atlases and aerial photos to identify features and places as well as to follow routes. ▶ Use simple compass directions as well as locational and directional language when describing features and routes.	▶ Express views about the environment and can recognise how people sometimes affect the environment. ▶ Create their own simple maps and symbols.
Year 1	▶ Name and locate some places in their locality, the UK and wider world.	▶ Describe some places and features using basic geographical vocabulary. ▶ Express their views on some features of their environment e.g. what they do or do not like.	▶ Ask and answer simple geographical questions. ▶ Describe some similarities and differences when studying places and features e.g. hot and cold places of the world.	▶ Observe and describe daily weather patterns. ▶ Use simple fieldwork and observational skills when studying the geography of their school and its grounds.	▶ Use a range of sources such as simple maps, globes, atlases and images. ▶ Know that symbols mean something on maps.	▶ Use maps and other images to talk about everyday life e.g. where they live, journeys to school etc. ▶ Draw, speak or write about simple geographical concepts such as what they can see where.

KS1 KS2

History
End of Year Expectations

Year 6	▶ Use dates and a wide range of historical terms when sequencing events and periods of time. ▶ Develop chronologically secure knowledge of the events and periods of time studied. ▶ Analyse links and contrasts within and across different periods of time including short-term and long-term time scales.	▶ Describe aspects of the Viking and Anglo-Saxon struggle for the Kingdom of England in the time of Edward the Confessor. ▶ Demonstrate knowledge of an aspect or theme in British history that extends their chronological knowledge beyond 1066.	▶ Regularly address and sometimes devise historically valid questions and hypotheses. ▶ Give some reasons for contrasting arguments and interpretations of the past. ▶ Describe the impact of historical events and changes. ▶ Recognise that some events, people and changes are judged as more significant than others.	▶ Acknowledge contrasting evidence and opinions when discussing and debating historical issues. ▶ Use appropriate vocabulary when discussing, describing and explaining historical events. ▶ Construct informed responses to historical questions and hypotheses that involve thoughtful selection and organisation of relevant historical information including appropriate dates and terms. ▶ Choose the most appropriate way of communicating different historical findings.
Year 5	▶ Use dates and appropriate historical terms to sequence events and periods of time. ▶ Identify where people, places and periods of time fit into a chronological framework. ▶ Describe links and contrasts within and across different periods of time including short-term and long-term time scales.	▶ Describe some aspects of Britain's settlement by Anglo-Saxons and Scots. ▶ Demonstrate knowledge of Ancient Greece including greek life and achievements and their influence on the western world. ▶ Describe key aspects of a non-European society such as the early Islamic civilisation.	▶ Use a wider range of sources as a basis for research to answer questions and to test hypotheses. ▶ Recognise how our knowledge of the past is constructed from a range of sources. ▶ Evaluate sources and make simple inferences. ▶ Choose relevant sources of evidence to support particular lines of enquiry.	▶ Discuss and debate historical issues. ▶ Use appropriate vocabulary when discussing and describing historical events. ▶ Construct responses to historical questions and hypotheses that involve selection and organisation of relevant historical information including dates and terms. ▶ Choose relevant ways to communicate historical findings.
Year 4	▶ Use dates and historical terms when ordering events and objects. ▶ Identify where people and events fit into a chronological framework. ▶ Explore links and contrasts within and across different periods of time.	▶ Describe and compare some of the characteristic features and achievements of the earliest civilisations including where and when they appeared. ▶ Demonstrate more in-depth knowledge of one specific civilisation e.g. Ancient Egypt. ▶ Demonstrate knowledge of an aspect or theme in British History that extends their chronological knowledge beyond 1066.	▶ Use sources to address historically valid questions and hypotheses. ▶ Recognise how sources of evidence are used to make historical claims. ▶ Recognise why some events happened and what happened as a result. ▶ Identify historically significant people and events in different situations.	▶ Discuss significant aspects of, and connections between, different historical events. ▶ Select and organise relevant historical information to present in a range of ways. ▶ Use relevant and appropriate historical terms and vocabulary linked to chronology.

History
End of Year Expectations

	Chronology	Events, People and Changes	Interpretation, Enquiry and Using Sources	Communication
Year 3	▶ Use some dates and historical terms when ordering events and objects. ▶ Demonstrate awareness that the past can be divided into different periods of time. ▶ Explore trends and changes over time.	▶ Describe and give reasons for some of the changes in Britain from the Stone Age to the Iron Age. ▶ Describe some aspects of the Roman Empire and recognise its impact on Britain. ▶ Demonstrate knowledge of aspects of history significant in their locality.	▶ Use sources to address historically valid questions. ▶ Recognise that our knowledge of the past is constructed from different sources of evidence. ▶ Recognise that different versions of past events may exist. ▶ Describe some of the ways the past can be represented.	▶ Discuss some historical events, issues, connections and changes. ▶ Select and organise historical information to present in a range of ways. ▶ Use relevant historical terms and vocabulary linked to chronology.
Year 2	▶ Order and sequence events and objects. ▶ Recognise that their own lives are similar and / or different from the lives of people in the past. ▶ Use common words and phrases concerned with the passing of time.	▶ Demonstrate awareness of the lives of significant individuals in the past who have contributed to national and international achievements. ▶ Develop awareness of significant historical events, people and places in their own locality.	▶ Ask and answer simple questions about the past through observing and handling a range of sources. ▶ Consider why things may change over time. ▶ Recognise some basic reasons why people in the past acted as they did. ▶ Choose parts of stories and other sources to show what they know about significant people and events.	▶ Talk about what / who was significant in simple historical accounts. ▶ Demonstrate simple historical concepts and events through role-play, drawing and writing. ▶ Use a variety of simple historical terms and concepts.
Year 1	▶ Recognise the distinction between past and present. ▶ Order and sequence some familiar events and objects. ▶ Identify some similarities and differences between ways of life at different times. ▶ Use some everyday terms about the passing of time such as 'a long time ago' and 'before'.	▶ Retell some events from beyond their living memory which are significant nationally or globally. ▶ Describe some changes within their living memory (including aspects of national life where appropriate).	▶ Make simple observations about different people, events, beliefs and communities. ▶ Use sources to answer simple questions about the past. ▶ Identify some of the basic ways in which the past can be represented. ▶ Choose parts of stories and other sources to show what they know about the past.	▶ Describe special or significant events. ▶ Retell simple stories or events from the past. ▶ Use simple historical terms.
	Chronology	**Events, People and Changes**	**Interpretation, Enquiry and Using Sources**	**Communication**

KS1 ▶ KS2 ▶

	Understand and respond to spoken language from a variety of resources (Listening)	Speak with increasing fluency, confidence and spontaneity continually improving the accuracy of their pronunciation and intonation (speaking)	Understand and respond to written language from a variety of authentic resources and develop an appreciation of a range of writing (reading)	Write at varying length for different purposes and audiences (writing)	Use a variety of grammatical structures
Year 6	▶ Understand the main points and some detail from a short spoken passage e.g. someone talking about their friends, their home town, school, likes and dislikes etc.	▶ Take part in longer conversations with increasing spontaneity and fluency. ▶ Can express simple opinions and their pronunciation is generally confident and accurate.	▶ Understand the main points and some detail including simple opinions of a longer written passage e.g. email, postcard, story, poem, recipe, advert etc.	▶ Write a short text on a familiar topic using reference materials / support. ▶ Write for a range of audiences and purpose. ▶ Use formal and informal 'you'.	▶ Use basic language structures accurately and with confidence e.g. apply correct verb endings to regular and some high frequency irregular verbs (faire, aller, avoir, etre). ▶ Use prepositions and use some adverbial phrases to talk about the past or future in a simple way e.g. there was / there will be. ▶ Understand the word tense and have an awareness that whether an event is ongoing or finished can be expressed differently in a FL compared to English.
Year 5	▶ Understand the main points from a spoken passage with some repetition e.g. items from a shopping list, simple opinions about school depending on topics taught in Y5.	▶ Ask and answer simple questions and use a negative. ▶ Take part in brief pre-prepared tasks e.g. a weather forecast, a short interview about school, interests / transactional role play with increasing confidence and fluency.	▶ Understand the main points from a short written passage in clear printed script. ▶ Are beginning to use a bilingual dictionary independently with some success.	▶ Write two or three short sentences as a personal response accurately and can use reference materials / support.	▶ Understand some basic aspects of language structure e.g. how to use personal pronouns, an awareness of verb patterns, word order, use of adjectival agreement with accuracy and the conjugation of some regular high frequency verbs e.g. aimer, jouer, porter etc.
Year 4	▶ Understand a range of familiar spoken phrases e.g. classroom instructions.	▶ Ask and answer simple questions and give basic information (including a simple negative statement) based on topics covered in Y4. ▶ Take part in a simple conversation and their pronunciation and confidence is improving. ▶ Observe social conventions when speaking to someone i.e. formal and informal greetings and use of 'you').	▶ Understand simple written phrases and match sounds to familiar written words as they become more aware of spelling patterns.	▶ Write simple, familiar phrases accurately using a writing frame or scaffold.	▶ Understand some basic aspects of language structure e.g. question words, how to use the negative, the position of the adjective in a sentence and an awareness of word order.
Year 3	▶ Identify the meanings of simple words and phrases they hear by matching to an object / picture/ person etc.	▶ Understand a few familiar spoken words and phrases and respond to simple questions e.g. What's your name? How are you? etc. and others depending on topics covered. ▶ Say or repeat some familiar words and short simple phrases Year 3.	▶ Identify the meanings of simple words and phrases they see by matching to an object / picture/ person etc. ▶ Recognise and read out a few familiar words and phrases and are starting to notice the sound spelling patterns.	▶ Write or copy a few simple words or symbols accurately. ▶ Be aware that symbols e.g. accents, umlauts exist and what they do (also capital letters in German).	▶ Understand some basic aspects of language structure e.g. gender, definite and indefinite articles, singular and plural, nouns, adjectives.

Music
End of Year Expectations

Year 6	▶ Independently sing songs, speak chants and rhymes in unison and two parts, with confident clear diction, control of pitch, a sense of phrase and musical expression. ▶ Practise, rehearse and present a variety of solo and ensemble performances with confidence and awareness of the audience.	▶ Know that time and place can influence the way music is created, performed and heard. Can make informed suggestions of suitable pieces of music for various occasions. ▶ Develop a better understanding of the history of music. Begin to investigate the different eras of music.	▶ Improvise with their voice or on a musical instrument both solo and ensemble to develop a wide range of rhythmic and melodic material when composing. ▶ Can compose for different moods and use dynamic levels such as accents (*sudden loud or sudden quiet notes*).	▶ Explore and compare a variety of sounds in a piece of music, identifying the prominent melodies.	▶ Recognise a metre (the way in which beats are grouped) of three (such as in a Waltz) or four (most pop songs) and begin to recognise a change of metre within a piece. ▶ Use Italian musical terms for gradually getting louder *crescendo* and gradually getting quieter *diminuendo*.
Year 5	▶ Independently sing songs, speak chants and rhymes in unison and two parts, with increasing clear diction, control of pitch, a sense of phrase and musical expression. ▶ Perform a variety of repeated rhythmic patterns (ostinato) on percussion instruments.	▶ Begin to make suggestions of how the inter-related dimensions can be enhanced within musical structures to communicate different moods and effects (*e.g. how can the tempo be changed to create excitement?*) ▶ Demonstrate a better understanding of the history of music. Begin to make appropriate suggestions of suitable pieces for music for various occasions.	▶ Improvise and develop a wider range of rhythmic and melodic material when composing. ▶ Choose, combine and organise a variety of the inter-related dimension of musical elements when composing with staff and other musical notations, such as graphic scores and / or using ICT.	▶ Begin to explore and compare a variety of contrasting sounds, recognising where the texture (thick (*many sounds*) and thin (*few*) layers of sound) varies in a song or piece of music.	▶ Recognise a musical phrase is like a musical sentence and can identify its duration as short or long. ▶ Can identify a silence in a rhythmic pattern with a gesture such as raised hand. ▶ Begin to use various Italian musical terms such as *crescendo*, *diminuendo*, *forte* and *piano*.
Year 4	▶ Sing solo songs demonstrating call and response form, speak chants and rhymes in unison with clear diction, control of pitch, a sense of phrase and musical expression. ▶ Identify contrasting sections of a song, such as the verse and refrain (chorus).	▶ Review their own ideas and feelings about music using art, movement, dance, expressive language and musical vocabulary. ▶ Understand that time and place can influence how and why music is created, performed and heard. Listen to and review music from a culture different to their own.	▶ Improvise and develop rhythmic and melodic material when composing. ▶ Experiment with gestures to show the overall contour of the pitch of a melody as it moves upwards, downwards or stays the same. ▶ Combine a variety of musical elements when composing using staff and other musical notations.	▶ Explore and compare sounds from the different instrumental families (percussion, woodwind, brass, string), name a variety of instruments. ▶ Hear in a piece of music, refer to and compare the different sounds instruments make as their tone colour such as brassy, wooden and metallic. ▶ Sequence various famous composers on a timeline.	▶ Identify through gestures such as clapping or using percussion, the strong / first beat whilst singing. ▶ Keep a steady beat and maintain rhythmic accuracy holding their own beat against another contrasting part. ▶ Recognise pitch movement by step, leaps or as repeats.

KS1 KS2

Music
End of Year Expectations

	Performing	Listening and Reviewing	Creating and Composing	Understanding and Exploring	Inter-Related Dimensions: (Pitch / Duration / Dynamics / Tempo / Timbre / Texture / Structure)
Year 3	▸ Sing songs (also imitating melody patterns as an echo), speak chants and rhymes in unison, with clear diction, control of pitch and musical expression presenting performances with an awareness of the audience. ▸ Play tuned and untuned instruments with increasing control and rhythmic accuracy, responding through gestures or movement to changes in the speed of the beat.	▸ Listen with extended concentration and begin to express their opinion on a range of live and recorded music. ▸ Explain their ideas and feelings about music using movement, dance and expressive language. ▸ Begin to understand how music can be organised to communicate different moods and effects (e.g. listening to loud and fast music will create a different feeling to slow and quiet). ▸ Determine upwards and downwards direction in pitch when listening and reviewing music.	▸ Begin to improvise and develop rhythmic and melodic material when composing, improving their own and others' work in relation to its intended effect. ▸ Begin to create and combine a variety of the inter-related dimensions when composing (e.g. composing using both dynamics and tempo).	▸ Explore and compare sounds of groups of musical instruments, identifying the differences between them, e.g. strings, woodwind, orchestra, rock band etc. ▸ Begin to explore the history of music, understanding that time and place can influence how and why music is created, performed and heard. ▸ Explore music from a culture different to their own.	▸ Understand that dynamics means volume and can recognise various different levels. ▸ Understand that texture refers to the difference between thick (*many sounds*) and thin (*few*) layers of sounds. ▸ Experience how music can be produced in different ways, including through ICT, and described through relevant established and invented notations.
Year 2	▸ Play tuned and untuned instruments. ▸ Use their voices expressively to rehearse and perform with others, recognising a song with an accompaniment (*instrumental backing*) and one without. ▸ Can start and finish together and can keep to a steady pulse.	▸ Listen with concentration to music of a longer duration and recognise simple structures (for example, a beginning, middle and end). ▸ Understand that music can be used for particular purposes and occasions.	▸ Experiment with creating their own musical patterns and begin to identify one strand (*section*) of music or more. ▸ Begin to improve their own and others' work.	▸ Recognise and match sounds with pictures of different instruments. ▸ Explore a variety of vocal qualities through singing and speaking. ▸ Begin to use onomatopoeia sound words to describe selected sounds and the ways in which they are produced.	▸ Recognise the difference between a steady beat and no beat and identify sections within a piece of music which sound the same or different. ▸ Understand that tempo means speed, and identify the tempo of music as fast, moderate, slow, getting faster or getting slower.
Year 1	▸ Rehearse and perform with others, using untuned instruments and voices to sing songs, speak chants and rhymes. ▸ Perform with confidence cumulative songs (*songs with a simple melody that changes each verse*).	▸ Understand how sounds can be made in different ways and described using given and invented signs and symbols. ▸ Listen to contrasting songs (such as lullabies and dance / up-tempo) with concentration, remembering specific instrumental names and sounds.	▸ Experiment with creating and copying musical patterns. ▸ Begin to explore the sounds of their voices and various musical instruments, recognising the differences between singing and speaking and wood, metal, skin (*drum*) and 'shaker' sounds.	▸ Begin to explore their feelings about music using movement, dance and expressive language. ▸ Develop an understanding that music has been composed throughout history.	▸ Identify high and low pitches, sounds of long and short duration and recognise the difference between long and short sounds. ▸ Identify silence and sounds that are loud and quiet and the differences between fast and slow speeds.

Year 6	▶ Continue to develop sport specific skills, applying them with control and precision. ▶ Perform a number of travelling skills, i.e. with and without equipment, sending and receiving skills with consistency, accuracy, confidence, control and speed. ▶ Perform dances fluently and with control and can perform to an accompaniment expressively and sensitively. ▶ Follow a simple route on an OS map and keep it set and identify different features and successfully complete a timed orienteering course (competition). ▶ Accept responsibility when working in a team.	▶ Examples of developing sport specific skills may include: 　o Chest bounce, shoulder, swing pass, dribbling a ball, running with a ball. 　o Bowl, underarm / overarm. 　o Catch a small ball. 　o Counter balance and counter tension with a group.	▶ Collaborate as a team and apply attacking and defending skills through modified versions of 4V4 or 5V5 invasion games. ▶ Apply a range of skills and tactics in a range of other games such as net / wall or striking / fielding type activities.	▶ Create and perform longer sequences of actions (8-10) with a partner that show an awareness of their audience in a range of activities such as gymnastic activities. ▶ Work creatively and imaginatively on their own, with a partner and in a group to compose motifs and structure simple dances and dance.	▶ Identify aspects of their own and others' performances that need improvement and suggest how to improve them, i.e. which aspects were performed consistently, accurately, fluently and clearly. ▶ Watch performances and games and use criteria to make judgements and suggest improvements.
Year 5	▶ Continue to develop sport specific skills applying them with coordination and control. Perform a number of skills, i.e. travelling with and without equipment, sending and receiving skills with consistency, accuracy, confidence and control. ▶ Perform different styles of dance clearly and fluently, adapt and refine the way they use weight, space and rhythm in their dances to express themselves in the style of dance. ▶ Perform symmetrical and asymmetrical actions and counter balance and counter tension with a partner. ▶ Follow a simple course using eight points of the compass and mark on a map the position of a ground. ▶ Work cooperatively with a partner and small group.	▶ Examples of sport specific skills may include: 　o Chest bounce, shoulder pass, catching, push pass, kicking, shooting. 　o Bowl underarm / overarm. 　o Strike a ball (rounders / cricket). 　o Catch a small ball. 　o Counter balance with a partner.	▶ Collaborate as a team and develop defending skills through modified versions of 5V3 or 5V4 invasion games. ▶ Apply a range of skills and tactics in a range of other games such as net / wall or striking / fielding type activities.	▶ Create and perform longer sequences of actions (6-8) with a partner in a range of activities such as gymnastic activities. ▶ Compose motifs and plan dances creatively and collaboratively in groups.	▶ Recognise their own and others strengths and explain why a performance is good using appropriate terminology when evaluating both their own and others performances.
Year 4	▶ Master fundamental movement skills and start to develop sport specific skills. Develop a broader range of skills using different sports and activities. ▶ Perform using a number of sending and receiving skills with consistency and accuracy. Travel with an object i.e. running or dribbling a ball with / without equipment. ▶ Perform movements, shapes and balances that are matched and / or mirrored. ▶ Perform dances clearly and fluently, show sensitivity to the dance idea and the accompaniment. ▶ Orientate a map consistently and accurately. Follow a simple star orienteering course and simple point to point orienteering course on school grounds recording controls. ▶ Work cooperatively with others to solve challenges.	▶ Examples of developing sport specific skills may include: 　o Chest bounce pass, swing pass, catching. 　o Bouncing a ball, running with a ball. 　o Underarm bowl. 　o Throwing overarm. 　o Strike a ball with implement. 　o Matched and mirrored balances.	▶ Develop attacking skills in a 4V2 invasion game. ▶ Apply skills and tactics in a range of other games such as net / wall or striking / fielding type activities.	▶ Create and perform sequences of actions (6) with control and precision in a range of activities such as gymnastic activities. ▶ Use simple motifs and movement patterns to structure dance phrases on their own and with a partner.	▶ Describe what is successful in their own performances. ▶ Identify aspects of their game that needs improving and say how they could go about improving them.

	Developing Skills	Examples of Skills	Application of Skills: Attacking and Defending Strategies	Application of Skills: Linking Actions and Sequences of Movement	Evaluating Success
Year 3	▶ Master most fundamental skills and start to develop sport specific skills. Develop throwing and catching skills using different sports and activities. ▶ Perform using a number of sending and receiving skills with some accuracy. ▶ Travelling - change direction easily. ▶ Perform travelling, rolling, jumping and balancing skills. ▶ Perform freely, translating ideas from a stimulus into movement using dynamic, rhythmic and expressive qualities clearly and with control. ▶ Plan routes around obstacles (e.g. PE apparatus, table / chairs in classroom). ▶ Begin to work cooperatively with others to solve challenges.	▶ Examples of developing sport specific skills may include: 　○ Chest pass, bounce pass, swing pass, catching. 　○ Dodging and swerving. 　○ Underarm bowl. 　○ Throwing overarm. 　○ Strike a ball with implement. 　○ Travelling on hands and feet, balance on large and small body parts.	▶ Develop simple attacking skills in a 3V1 invasion game. ▶ Apply skills and tactics in a range of other games such as net / wall or striking / fielding type activities.	▶ Create and perform sequences of actions (4-6) smoothly in a range of activities such as gymnastic activities and dance. ▶ Share and create dance phrases with a partner and in a small group; repeat, remember and perform these phrases in a dance.	▶ Identify what they do best and what they find difficult. ▶ Make simple assessments of performance based on simple criteria given by the teacher.
Year 2	▶ Perform fundamental movement skills at a developing level and start to master some basic movements in: 　○ Travelling skills. 　○ Sending skills. 　○ Receiving skills. ▶ Perform body actions with control and coordination and perform short dances, showing an understanding of expressive qualities.	▶ Examples of FMS may include: 　○ Travelling skills - running, galloping, dodging. 　○ Sending skills - throwing, kicking, bouncing and striking a ball. 　○ Receiving skills - trapping and catching an object.	▶ Apply simple tactics in a 3V1 game. ▶ Engage in simple competitive and cooperative activities.	▶ Create and link simple combinations of 3 or 4 actions in ways that suit the physical activity *(for example gymnastic activities)*. ▶ Link body actions and remember and repeat dance phrases.	▶ Describe what they have done or seen others doing. ▶ Comment on a skill or combination of skills and say how it could be improved.
Year 1	▶ Perform fundamental movement skills at a developing level in: 　○ Travelling skills. 　○ Sending skills. 　○ Receiving skills. ▶ Perform basic body actions with control and show some sense of dynamic, expressive and rhythmic qualities in their own dance.	▶ Examples of FMS may include: 　○ Travelling skills - running, hopping, skipping. 　○ Sending skills – rolling, kicking, throwing. 　○ Receiving skills - catching.	▶ Apply a simple tactic in a 1V1 or 2V2 net type game. ▶ Engage in simple competitive and cooperative activities.	▶ Create and link simple combinations of 2 or 3 actions in ways that suit the physical activity *(for example gymnastic activities)*. ▶ Choose appropriate movements for different dance ideas and repeat short dance phrases.	▶ Describe what they have done or seen others doing.

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