

KLIPS

Key Learning in Reading: Year 1

Word Reading	Comprehension
<p>As above and: Letters and Sounds Phases 4 to 5.</p> <ul style="list-style-type: none"> ▪ <u>Respond speedily with the correct sound to grapheme for the 44 phonemes.</u> ▪ <u>Recognise and use the different ways of pronouncing the same grapheme; e.g. <i>ow</i> in <i>snow</i> and <i>cow</i>.</u> ▪ <u>Read accurately by blending sounds in unfamiliar words.</u> ▪ Read words containing <i>-s, -es, -ing, -ed, -er, -est</i> endings. ▪ Split two and three syllable words into the separate syllables to support blending for reading. ▪ Read words with contractions e.g. <i>I'm, I'll, we'll</i> and understand that the apostrophe represents the omitted letter. ▪ Automatically recognise approximately 150 high frequency words (see bottom). ▪ <u>Apply phonic knowledge for reading.</u> ▪ <u>Read aloud accurately books that are consistent with their developing phonic knowledge.</u> ▪ Develop fluency, accuracy and confidence by re-reading books. ▪ <u>Read more challenging texts using phonics and high frequency word recognition.</u> 	<p>As above and: Develop pleasure in reading, motivation to read, vocabulary and understanding by:</p> <ul style="list-style-type: none"> ▪ Listening to a range of texts at a level beyond that at which they can read independently including stories, non-fiction and poems. ▪ <u>Identifying and discuss the main events in stories.</u> ▪ <u>Identifying and discuss the main characters in stories.</u> ▪ <u>Recalling specific information in texts.</u> ▪ Recognising and join in with language patterns and repetition. ▪ Use patterns and repetition to support oral retelling. ▪ Reciting rhymes and poems by heart. ▪ Relating texts to own experiences. ▪ Re telling familiar stories in a range of contexts e.g. <i>small world, role play, storytelling</i>. ▪ <u>Make personal reading choices and explain reasons for choices.</u> <p>Understand both the books they can already read accurately and fluently and those that they listen to by:</p> <ul style="list-style-type: none"> ▪ Introducing and discussing key vocabulary. ▪ Activating prior knowledge e.g. <i>what do you know about minibeasts?</i> ▪ <u>Checking that texts make sense while reading and self-correct.</u> ▪ <u>Making predictions based on what has been read so far.</u> ▪ Make basic inferences about what is being said and done. ▪ Discussing the title and how it relates to the events in the whole story e.g. <i>Peace at Last by Jill Murphy</i>. <p>Participating in discussion about what is read to them, taking turns and listening to what others say by:</p> <ul style="list-style-type: none"> ▪ <u>Listening to what others say.</u> ▪ Taking turns. ▪ Giving opinions and supporting with reasons e.g. <i>Hansel was clever when he put stones in his pocket.</i> ▪ Explaining clearly their understanding of what is read to them. ▪ <u>Demonstrating understanding of texts by answering questions related to who, what, where, when, why, how.</u>

Key Learning in Reading: Year 2

Word Reading	Comprehension
<p>As above and: Letters and Sounds Phase 6.</p> <ul style="list-style-type: none"> ▪ Apply phonic knowledge and skills to read words until automatic decoding has become embedded and reading is fluent. ▪ <u>Read accurately by blending the sounds in words, especially recognising alternative sounds for graphemes.</u> ▪ <u>Read accurately words of two or more syllables that contain alternative sounds for grapheme e.g. <i>shoulder, roundabout, grouping.</i></u> ▪ Read words containing common suffixes e.g. <i>-ness, -ment, -ful, -ly.</i> ▪ Read further common exception words, noting tricky parts (see bottom). ▪ <u>Read frequently encountered words quickly and accurately without overt sounding and blending.</u> ▪ <u>Read aloud books closely matched to their improving phonic knowledge, sounding out unfamiliar words accurately, automatically and without undue hesitation.</u> ▪ Re-read these books to build up their fluency and confidence in word reading. ▪ Uses tone and intonation when reading aloud. ▪ Read longer and less familiar texts independently. 	<p>As above and: Develop pleasure in reading, motivation to read, vocabulary and understanding by:</p> <ul style="list-style-type: none"> ▪ Listening to a range of texts at a level beyond that at which they can read independently including stories, non-fiction, and contemporary and classic poetry. ▪ <u>Sequencing and discussing the main events in stories.</u> ▪ Learning and reciting a range of poems using appropriate intonation. ▪ Retelling a wider range of stories, fairy tales and traditional tales. ▪ Read a range of non-fiction texts including information, explanations, instructions, recounts, reports. ▪ Discussing how specific information is organised within a non-fiction text e.g. <i>text boxes, sub-headings, contents, bullet points, glossary, diagrams.</i> ▪ Identifying, discussing and collecting favourite words and phrases. ▪ Recognising use of repetitive language within a text or poem e.g. <i>run, run as fast as you can</i> and across texts e.g. <i>long, long ago in a land far away...</i> ▪ Make personal reading choices and explain reasons for choices. <p>Understand both the books they can already read accurately and fluently and those that they listen to by:</p> <ul style="list-style-type: none"> ▪ Introducing and discussing key vocabulary within the context of a text. ▪ Use morphology to work out the meaning of unfamiliar words e.g. <i>terror, terrorised.</i> ▪ Activating prior knowledge and raising questions e.g. <i>What do we know? What do we want to know? What have we learned?</i> ▪ <u>Checking that texts make sense while reading and self-correct.</u> ▪ <u>Making predictions using evidence from the text.</u> ▪ <u>Making inferences about characters and events using evidence from the text e.g. <i>what is a character thinking, saying and feeling?</i></u> <p>Participating in discussion about what is read to them, taking turns and listening to what others say:</p> <ul style="list-style-type: none"> ▪ Making contributions in whole class and group discussion. ▪ Listening and responding to contributions from others. ▪ Giving opinions and supporting with reasons e.g. <i>Was Goldilocks a good or bad character?</i> ▪ Considering other points of view. <p>Explaining clearly their understanding of what they read themselves and what is read to them:</p> <ul style="list-style-type: none"> ▪ <u>Demonstrating understanding of texts by asking and answering questions related to who, what, where, when, why, how.</u>

Key Learning in Reading: Year 3

Word Reading	Comprehension
<p>As above and:</p> <ul style="list-style-type: none"> ▪ Use knowledge of root words to understand meanings of words. ▪ Use prefixes to understand meanings e.g. <i>un-, dis-, -mis-, re-</i>. ▪ Use suffixes to understand meanings e.g. <i>-ation, -ous</i>. ▪ Read and understand meaning of words on Y3/4 word list – see bottom. ▪ <u>Use intonation, tone and volume when reading aloud.</u> ▪ <u>Take note of punctuation when reading aloud.</u> 	<p>As above and:</p> <p>Develop pleasure in reading, motivation to read, vocabulary and understanding by:</p> <ul style="list-style-type: none"> ▪ Listening to and discussing a range of fiction, poetry, plays, non-fiction. ▪ Regularly listening to whole novels read aloud by the teacher. ▪ Reading a range of non-fiction texts including information, explanations, instructions, recounts, reports, persuasion. ▪ Analysing and evaluate texts looking at language, structure and presentation e.g. <i>newspaper reports, recipes, etc.</i> ▪ Recognising some different forms of poetry e.g. <i>narrative, free verse</i>. ▪ Reading books and texts for a range of purposes e.g. <i>enjoyment, research, skills development, reference</i>. ▪ Using dictionaries to check meanings of words they have read. ▪ <u>Sequencing and discussing the main events in stories.</u> ▪ Retelling a range of stories, including less familiar fairy stories, fables and folk tales e.g. <i>Grimm’s Fairy Tales, Rudyard Kipling Just So Stories</i>. ▪ Identifying and discussing themes e.g. <i>good over evil, weak and strong, wise and foolish, mean and generous, rich and poor</i>. ▪ Identifying and discussing conventions e.g. <i>numbers three and seven in fairy tales, magical sentence repeated several times</i>. ▪ Identifying, discussing and collecting favourite words and phrases which capture the reader’s interest and imagination. ▪ Preparing poems/playscripts to read aloud, showing understanding through intonation, tone, volume and action. <p>Understand what they read independently by:</p> <ul style="list-style-type: none"> ▪ <u>Discussing their understanding of the text</u> ▪ <u>Explaining the meaning of unfamiliar words by using the context</u> ▪ <u>Making predictions based on details stated</u> ▪ <u>Raising questions during the reading process to deepen understanding e.g. <i>I wonder why the character.</i></u> ▪ <u>Drawing inferences around characters thoughts, feelings and actions, and justify with evidence from the text</u> ▪ Using point and evidence to structure and justify responses. ▪ Discussing the purpose of paragraphs. ▪ Identifying a key idea in a paragraph. <p>Retrieve and record information from non-fiction</p> <ul style="list-style-type: none"> ▪ Evaluating how specific information is organised within a non-fiction text e.g. <i>text boxes, sub-headings, contents, bullet points, glossary, diagrams</i>. ▪ Quickly appraising a text to evaluate usefulness. ▪ Navigating texts in print and on screen. <p>Participating in discussion about what is read to them and books they have read independently, taking turns and listening to what others say</p> <ul style="list-style-type: none"> ▪ Developing and agreeing on rules for effective discussion. ▪ Making and responding to contributions in a variety of group situations e.g. <i>whole class, pairs, guided groups, book circles</i>.

Key Learning in Reading: Year 4

Word Reading	Comprehension
<p>As above and:</p> <ul style="list-style-type: none"> ▪ Use knowledge of root words to understand meanings of words. ▪ Use prefixes to understand meanings e.g. <i>sub-,inter-, anti-, auto-</i>. ▪ Use suffixes to understand meanings e.g. <i>-ation, -ous, -tion, -sion, -ssion, -cian</i>. ▪ <u>Read and understand meaning of words on Y3/4 word list – see bottom.</u> ▪ <u>Use punctuation to determine intonation and expression when reading aloud to a range of audiences.</u> 	<p>As above and:</p> <p>Develop pleasure in reading, motivation to read, vocabulary and understanding by:</p> <ul style="list-style-type: none"> ▪ Listening to, reading and discussing a range of fiction, poetry, plays and non-fiction in different forms e.g. <i>advertisements, formal speeches, leaflets, magazines, electronic texts</i>. ▪ Regularly listening to whole novels read aloud by the teacher. ▪ Analysing and evaluate texts looking at language, structure and presentation. ▪ Analysing different forms of poetry e.g. <i>haiku, limericks, kennings</i>. ▪ Reading books and texts for a range of purposes and responding in a variety of ways. ▪ Analysing and comparing a range of plot structures. ▪ Retelling a range of stories, including less familiar fairy stories, myths and legends. ▪ Identifying, analysing and discussing themes e.g. <i>safe and dangerous, just and unjust, origins of the earth, its people and animals</i>. ▪ Identifying, discussing and collecting effective words and phrases which capture the reader's interest and imagination e.g. <i>metaphors, similes</i>. ▪ Learning a range of poems by heart and rehearsing for performance. ▪ Preparing poems and playscripts to read aloud, showing understanding through intonation, tone, volume and action. <p>Discussing their understanding of the text</p> <ul style="list-style-type: none"> ▪ <u>Explaining the meaning of key vocabulary within the context of the text.</u> ▪ <u>Making predictions based on information stated and implied.</u> ▪ <u>Demonstrating active reading strategies e.g. generating questions, finding answers, refining thinking, modifying questions, constructing images.</u> ▪ <u>Drawing inferences around characters' thoughts, feelings, actions and motives, and justify with evidence from the text using point and evidence.</u> ▪ Identifying main ideas drawn from more than one paragraph and summarising these e.g. <i>character is evil because...1/2/3 reasons, Clitheroe Castle is a worthwhile place to visit because 1/2/3 reasons across a text.</i> <p>Retrieve and record information from non-fiction.</p> <ul style="list-style-type: none"> ▪ Analysing and evaluating how specific information is organised within a non-fiction text e.g. <i>text boxes, sub-headings, contents, bullet points, glossary, diagrams</i>. ▪ <u>Scanning for dates, numbers and names.</u> ▪ Explaining how paragraphs are used to order or build up ideas, and how they are linked. ▪ <u>Navigating texts to locate and retrieve information in print and on screen.</u> <p>Participate in discussion about what is read to them and books they have read independently, taking turns and listening to what others say.</p> <ul style="list-style-type: none"> ▪ Develop, agree on and evaluate rules for effective discussion. ▪ Making and responding to contributions in a variety of group situations e.g. <i>whole class, independent reading groups, book circles</i>.

Key Learning in Reading: Year 5

Word Reading	Comprehension
<p>As above and:</p> <ul style="list-style-type: none"> ▪ Use knowledge of root words to understand meanings of words. ▪ Apply knowledge of prefixes to understand meaning of new words. ▪ Use suffixes to understand meanings e.g. <i>-ant, -ance, -ancy, -ent, -ence, -ency, -ible, -able, -ibly, -ably</i>. ▪ Read and understand meaning of words on Y5/6 word list – see bottom. ▪ <u>Use punctuation to determine intonation and expression when reading aloud to a range of audiences.</u> 	<p>As above and:</p> <p>Maintain positive attitudes to reading and understanding what they read by:</p> <ul style="list-style-type: none"> ▪ Listening to and discussing a range of fiction/poetry/non-fiction which they might not choose to read themselves. ▪ Regularly listening to whole novels read aloud by the teacher from an increasing range of authors. ▪ Exploring themes within and across texts e.g. loss, heroism, friendship. ▪ Making comparisons within a text e.g. characters' viewpoints of same events. ▪ Analysing the conventions of different types of writing e.g. <i>use of first person in autobiographies and diaries</i>. ▪ Recommending books to their peers with reasons for choices. ▪ Reading books and texts that are structured in different ways for a range of purposes. ▪ Expressing preferences about a wider range of books including modern fiction/traditional stories/myths/legends. ▪ Learning a wider range of poems by heart. ▪ Preparing poems and playscripts to read aloud and perform, showing understanding through intonation, tone, volume and action so the meaning is clear to an audience. <p>Understand what they read by:</p> <ul style="list-style-type: none"> ▪ <u>Checking that the book makes sense to them and demonstrating understanding e.g. through discussion, use of reading journals.</u> ▪ Exploring meaning of words in context. ▪ <u>Demonstrating active reading strategies e.g. generating questions to refine thinking, noting thoughts in a reading journal.</u> ▪ <u>Inferring characters feelings, thoughts and motives from their actions and justifying inferences with evidence.</u> ▪ <u>Predicting what might happen from information stated and implied.</u> ▪ <u>Re-read and reads ahead to locate clues to support understanding.</u> ▪ <u>Scanning for key words and text marking to locate key information.</u> ▪ Summarising main ideas drawn from more than one paragraph and identifying key details which support this. ▪ Identifying how language, structure and presentation contribute to meaning e.g. <i>formal letter, informal diary, persuasive speech</i>. <p>Discuss and evaluate how authors use language including figurative language, considering the impact on the reader</p> <ul style="list-style-type: none"> ▪ Exploring, recognising and using the terms metaphor, simile, imagery. ▪ Explaining the effect on the reader of the authors' choice of language. <p>Distinguish between statements of fact or opinion within a text.</p> <p>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.</p> <p>Explain and discuss their understanding of what they have read, including through formal presentations and debates, maintaining a focus on the topic and using notes where necessary by:</p> <ul style="list-style-type: none"> ▪ Preparing formal presentations individually or in groups. ▪ Using notes to support presentation of information. ▪ Responding to questions generated by a presentation. ▪ Participating in debates on an issue related to reading (fiction or non-fiction). <p><u>Provide reasoned justifications for their views by:</u></p> <ul style="list-style-type: none"> ▪ <u>Justifying opinions and elaborating by referring to the text. (Point + Evidence + Explanation).</u>

Key Learning in Reading: Year 6

Word Reading	Comprehension
<p>As above and:</p> <ul style="list-style-type: none"> Use knowledge of root words, prefixes and suffixes to investigate how the meanings of words change e.g. <i>un+happy+ness, dis+repute+able, dis+respect+ful, re+engage+ment.</i> Use suffixes to understand meanings e.g. <i>-cious, -tious, -tial, -cial.</i> Read and understand meaning of words on Y5/6 word list – see bottom. Use etymology to help the pronunciation of new words e.g. <i>chef, chalet, machine, brochure – French in origin.</i> Employ dramatic effect to engage listeners whilst reading aloud. Read extensively for pleasure. <p>As above and:</p> <ul style="list-style-type: none"> Evaluate texts quickly in order to determine their usefulness or appeal. Understand underlying themes, causes and consequences within whole texts. Understand the structures writers use to achieve coherence; (headings; links within and between paragraphs; connectives). Recognise authors’ techniques to influence and manipulate the reader. 	<p>As above and:</p> <p>Maintain positive attitudes to reading and understanding what they read by:</p> <ul style="list-style-type: none"> Listening to, reading and discussing an increasingly wide range of fiction, poetry, plays and non-fiction. Regularly listening to novels read aloud by the teacher from an increasing range of authors, which they may not choose themselves. Recognising themes within and across texts e.g. <i>hope, peace, fortune, survival.</i> Making comparisons within and across texts e.g. similar events in different books, such as being an evacuee in <i>Carrie’s War</i> and <i>Goodnight Mr Tom.</i> Comparing texts written in different periods. Analysing the conventions of different types of writing e.g. <i>use of dialogue to indicate geographical and/or historical settings for a story.</i> Independently read longer texts with sustained stamina and interest. Recommending books to their peers with detailed reasons for their opinions. Expressing preferences about a wider range of books including modern fiction, traditional stories, fiction from our literary heritage and books from other cultures and traditions. Learning a wider range of poems by heart. Preparing poems and playscripts to read aloud and perform using dramatic effects. <p>Understand what they read by:</p> <ul style="list-style-type: none"> Using a reading journal to record on-going reflections and responses to personal reading. Exploring texts in groups and deepening comprehension through discussion. <u>Exploring new vocabulary in context.</u> <u>Demonstrating active reading strategies e.g. challenging peers with questions, justifying opinions, responding to different viewpoints within a group.</u> Inferring characters feelings, thoughts and motives from their actions, justifying inferences with evidence e.g. <i>Point;Evidence;Explanation.</i> Predicting what might happen from information stated and implied. <u>Re-read and reads ahead to locate clues to support understanding and justifying with evidence from the text.</u> <u>Scanning for key information e.g. looking for descriptive words associated with a setting.</u> <u>Skimming for gist.</u> <u>Using a combination of skimming, scanning and close reading across a text to locate specific detail.</u> Identifying how language, structure and presentation contribute to meaning e.g. <i>persuasive leaflet, balanced argument.</i> <p>Discuss / evaluate how authors use language including figurative language, considering the impact on the reader by:</p> <ul style="list-style-type: none"> Exploring, recognising and using the terms personification, analogy, style and effect. <u>Explaining the effect on the reader of the authors’ choice of language and reasons why the author may have selected these.</u> <p>Distinguish between statements of fact or opinion across a range of texts e.g. <i>first-hand account of an event compared with a reported example such as Samuel Pepys’ diary and a history textbook.</i></p> <p>Participate in discussions about books building on their own and others’ ideas and challenging views courteously.</p> <p>Explain and discuss their understanding of what they have read, including through formal presentations and debates, maintaining a focus on the topic and using notes where necessary by:</p> <ul style="list-style-type: none"> Preparing formal presentations individually or in groups. Using notes to support presentation of information. Responding to questions generated by a presentation. Participating in debates on issues related to reading (fiction/non-fiction). <p><u>Provide reasoned justifications for their views</u></p> <ul style="list-style-type: none"> <u>Justifying opinions and elaborating by referring to the text e.g. Point;Evidence;Explanation</u>

Key Learning in Writing: Year 1

Composition		Transcription	
Vocabulary, grammar and punctuation	Composition	Spelling <i>(see also the Lancashire Supporting Spelling document for further detail and advice)</i>	Handwriting
<ul style="list-style-type: none"> ▪ 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 finger spaces. ▪ Punctuate simple sentences with capital letters and full stops. ▪ Use capital letter for the personal pronoun. ▪ Use capital letters for names of people, places and days of the week. ▪ Identify and use question marks and exclamation marks. ▪ Use simple connectives to link ideas e.g. <i>and</i>. ▪ Pluralise nouns using 's' and 'es' e.g. <i>dog, dogs; wish, wishes</i>. ▪ Add suffixes to verbs where no spelling change is needed to the root word e.g. <i>helping, helped, helper</i>. ▪ Add the prefix 'un' to verbs and adjectives to change the meaning e.g. <i>untie, unkind</i>. 	<ul style="list-style-type: none"> ▪ Orally compose every sentence before writing. ▪ Re-read every sentence to check it makes sense. ▪ Orally plan and rehearse ideas. ▪ Sequence ideas/events in order. ▪ Use formulaic phrases to open and close texts. ▪ Use familiar plots for structuring the opening, middle and end of their stories. ▪ Write in different forms with simple text type features e.g. <i>instructions, narratives, recounts, poems, information texts</i>. ▪ Discuss their writing with adults and peers. ▪ Read aloud their writing to adults and peers. 	<ul style="list-style-type: none"> ▪ Name the letters of the alphabet in order. ▪ Use letter names to distinguish between alternative spellings of the same sound. ▪ Spell words containing each of the phonemes already taught. ▪ Be able to encode the sounds they hear in words. ▪ Be able to read back words they have spelt. ▪ Use their phonic knowledge when spelling unfamiliar words (<i>i.e. produce phonically plausible spellings</i>). ▪ Spell common exception words. ▪ Spell the days of the week. ▪ Use the spelling rule for adding -s or -es (<i>i.e. when the word has a /tz/ sound</i>). ▪ Use the prefix un- for words without any change to the spelling of the root word. ▪ Use suffixes -ing, -ed, -er and -est where no change is needed in the spelling of root words. ▪ Apply simple spelling rules and guidelines, as listed in Appendix 1 Supporting Spelling document. ▪ Write from memory simple sentences dictated by the teacher that include words taught so far. 	<ul style="list-style-type: none"> ▪ Hold a pencil with an effective grip. ▪ Form lower-case letters correctly – <i>starting and finishing in the right place, going the right way round, correctly oriented</i>. ▪ Have clear ascenders ('<i>tall letters</i>') and descenders ('<i>tails</i>'). ▪ Form capital letters correctly.

Key Learning in Writing: Year 2

Composition		Transcription	
Vocabulary, grammar and punctuation	Composition	Spelling <i>(see also the Lancashire Supporting Spelling document for further detail and advice)</i>	Handwriting
<p>As above and:</p> <ul style="list-style-type: none"> ▪ Say, write and punctuate simple and compound sentences using the connectives <i>and, but</i> and <i>or</i>. ▪ Use sentences with different forms: statement, question, command, exclamation. ▪ Use commas to separate items in a list. ▪ Use apostrophes for contracted forms e.g. <i>don't, can't, wouldn't, you're, I'll</i>. ▪ Use subordination for time e.g. <i>When we had finished our writing, we went out to play. We went out to play when we had finished our writing.</i> Other time connectives: <i>while, as, before, after</i>. ▪ Use subordination for reason e.g. <i>I put my coat on because it was raining. Because it was raining, I put on my coat.</i> Other reason connectives: <i>so, if, then, for, unless</i>. ▪ Select, generate and effectively use verbs. ▪ Use past tense for narrative, recount (e.g. <i>diary, newspaper report, biography</i>) historical reports. ▪ Use present tense for non-chronological reports and persuasive adverts. ▪ Select, generate and effectively use nouns. ▪ Add suffixes <i>ness</i> and <i>er</i> to create nouns e.g. <i>happiness, sadness, teacher, baker</i>. ▪ Select, generate and effectively use adjectives. ▪ Add suffixes <i>ful</i> or <i>less</i> to create adjectives e.g. <i>playful, careful, careless, hopeless</i>. ▪ Use suffixes <i>er</i> and <i>est</i> to create adjectives e.g. <i>faster, fastest, smaller, smallest</i>. ▪ Use suffix <i>ly</i> to turn adjectives into adverbs e.g. <i>slowly, gently, carefully</i>. 	<p>As above and:</p> <ul style="list-style-type: none"> ▪ Plan and discuss what to write about e.g. <i>story mapping, collecting new vocabulary, key words and ideas</i>. ▪ Use specific text type features to write for a range of audiences and purposes e.g. <i>to instruct, inform, entertain, explain, discuss, persuade</i>. ▪ Write about real and fictional events. ▪ Write simple poems based on models. ▪ Edit and improve their own writing in relation to audience and purpose. ▪ <u>Evaluate their writing with adults and peers.</u> ▪ <u>Proofread to check for errors in spelling, grammar and punctuation.</u> ▪ Read aloud their writing with intonation to make the meaning clear. 	<p>As above and:</p> <ul style="list-style-type: none"> ▪ <u>Segment spoken words into phonemes and represent these by graphemes, spelling many correctly.</u> ▪ Learn new ways of spelling phonemes for which one or more spellings are already known. ▪ Learn some words with each spelling, including a few common homophones. ▪ <u>Learn to spell common exception words.</u> ▪ Learn to spell more words with contracted forms. ▪ Distinguish between homophones and near-homophone. ▪ Add suffixes <i>ness</i> and <i>er</i> to create nouns e.g. <i>happiness, sadness, teacher, baker</i>. ▪ Select, generate and effectively use adjectives. ▪ Add suffixes <i>ful</i> or <i>less</i> to create adjectives e.g. <i>playful, careful, careless, hopeless</i>. ▪ Use suffixes <i>er</i> and <i>est</i> to create adjectives e.g. <i>faster, fastest, smaller, smallest</i>. ▪ Use suffix <i>ly</i> to turn adjectives into adverbs e.g. <i>slowly, gently, carefully</i>. ▪ Write from memory simple sentences dictated by the teacher that include words and punctuation taught so far. 	<p>As above and:</p> <ul style="list-style-type: none"> ▪ Form lower-case letters of the correct size relative to one another. ▪ Use upper case letters appropriately e.g. <i>not always writing A as a capital, not using capitals within words</i>. ▪ Write upper case letters of the correct size relative to lower case letters. ▪ Start using some of the diagonal and horizontal strokes needed to join letters.

Key Learning in Writing: Year 3

Composition		Transcription	
Vocabulary, grammar and punctuation	Composition	Spelling <i>(see also the Lancashire Supporting Spelling document for further detail and advice)</i>	Handwriting
<p>As above and:</p> <ul style="list-style-type: none"> Explore and identify main and subordinate clauses in complex sentences. Explore, identify and create complex sentences using a range of conjunctions e.g. <i>if, while, since, after, before, so, although, until, in case</i>. Identify, select, generate and effectively use prepositions for where e.g. <i>above, below, beneath, within, outside, beyond</i>. Select, generate and effectively use adverbs e.g. <i>suddenly, silently, soon, eventually</i>. Use inverted commas to punctuate direct speech (speech marks). Use perfect form of verbs using <i>have</i> and <i>had</i> to indicate a completed action e.g. <i>I <u>have</u> washed my hands. We will <u>have</u> eaten our lunch by the time Dad arrives. Jack <u>had</u> watched TV for over two hours!</i> Use the determiner <i>a</i> or <i>an</i> according to whether the next word begins with a consonant or vowel e.g. <i>a rock, an open box</i>. Explore and collect word families e.g. <i>medical, medicine, medicinal, medic, paramedic, medically</i> to extend vocabulary. Explore and collect words with prefixes <i>super, anti, auto</i>. 	<p>As above and:</p> <p>Plan their writing by:</p> <ul style="list-style-type: none"> Reading and analysing narrative, non-fiction and poetry in order to plan and write their own versions. Identifying and discussing the purpose, audience, language and structures of narrative, non-fiction and poetry for writing. <u>Discussing and recording ideas for planning.</u> Creating and developing settings for narratives. Creating and developing characters for narrative. Creating and developing plots based on a model. Generating and selecting from vocabulary banks e.g. <i>noun phrases, powerful verbs, technical language, synonyms for said</i> appropriate to text type. <u>Grouping related material into paragraphs.</u> <u>Using headings and sub headings to organise information.</u> <p>Evaluate, and edit by:</p> <ul style="list-style-type: none"> <u>Proofreading to check for errors in spelling, grammar and punctuation in own and others' writing.</u> Discussing and proposing changes with partners and in small groups. Improving writing in the light of evaluation. <p>Perform their own compositions by:</p> <ul style="list-style-type: none"> Using appropriate intonation, tone and volume to present their writing to a group or class. 	<p>As above and:</p> <ul style="list-style-type: none"> Use further prefixes and suffixes and understand how to add them. Spell further homophones. Spell words that are often misspelt. <u>Use the first two letters of a word to check its spelling in a dictionary.</u> Write from memory simple sentences, dictated by the teacher, that include words and punctuation taught so far. Learn to spell new words correctly and have plenty of practice in spelling them. Understand how to place the apostrophe in words with regular plurals (e.g. <i>girls', boys'</i>). Spell words as accurately as possible using their phonic knowledge and other knowledge of spelling, such as morphology and etymology. 	<p>As above and:</p> <ul style="list-style-type: none"> <u>Form and use the four basic handwriting joins.</u> <u>Write legibly.</u>

Key Learning in Writing: Year 4

Composition		Transcription	
Vocabulary, grammar and punctuation	Composition	Spelling <i>(see also the Lancashire Supporting Spelling document for further detail and advice)</i>	Handwriting
<p>As above and:</p> <ul style="list-style-type: none"> ▪ Create complex sentences with adverb starters e.g. <i>Silently trudging through the snow, Sam made his way up the mountain.</i> ▪ Create sentences with fronted adverbials for when e.g. <i>As the clock struck twelve, the soldiers sprang into action.</i> ▪ Create sentences with fronted adverbials for where e.g. <i>In the distance, a lone wolf howled.</i> ▪ Use commas to mark clauses in complex sentences. ▪ Use inverted commas and other punctuation to indicate direct speech e.g. <i>The tour guide announced, "Be back here at four o' clock."</i> ▪ Identify, select and effectively use pronouns. ▪ Explore, identify, collect and use noun phrases e.g. <i>The crumbly cookie with tasty marshmallow pieces melted in my mouth.</i> ▪ Explore, identify and use Standard English verb inflections for writing e.g. <i>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.</i> ▪ Use apostrophes for singular and plural possession e.g. <i>the dog's bone and the dogs' bones.</i> 	<p>As above and:</p> <p>Plan their writing by:</p> <ul style="list-style-type: none"> ▪ Reading and analysing narrative, non-fiction and poetry in order to plan and write their own. ▪ Identifying and discussing the purpose, audience, language and structures of narrative, non-fiction and poetry for writing. ▪ <u>Discussing and recording ideas for planning e.g. story mountain, story map, text map, non-fiction bridge, story board, boxing-up text types to create a plan.</u> <p>Draft and write by:</p> <ul style="list-style-type: none"> ▪ Developing settings and characterisation using vocabulary to create emphasis, humour, atmosphere, suspense. ▪ Planning and writing an opening paragraph which combines the introduction of a setting and character/s. ▪ Organising paragraphs in narrative and non-fiction. ▪ Linking ideas within paragraphs e.g. <i>fronted adverbials for when and where.</i> ▪ Generating and select from vocabulary banks e.g. <i>powerful adverbs, adverbial phrases, technical language, persuasive phrases, alliteration</i> appropriate to text type. <p>Evaluate and edit by:</p> <ul style="list-style-type: none"> ▪ <u>Proofreading to check for errors in spelling, grammar and punctuation in own and others' writing.</u> ▪ Discussing and proposing changes with partners and in small groups. ▪ Improving writing in light of evaluation <p>Perform own compositions for different audiences</p> <ul style="list-style-type: none"> ▪ Use appropriate intonation, tone and volume to present their writing to a range of audiences. 	<p>As above and:</p> <ul style="list-style-type: none"> ▪ Use further prefixes and suffixes and understand how to add them. ▪ Spell further homophones. ▪ Spell words that are often misspelt. ▪ <u>Use the first three letters of a word to check its spelling in a dictionary.</u> ▪ Write from memory simple sentences, dictated by the teacher, that include words and punctuation taught so far. ▪ Learn to spell new words correctly and have plenty of practice in spelling them. ▪ Understand how to place the apostrophe in words with irregular plurals (e.g. children's). ▪ Spell words as accurately as possible using their phonic knowledge and other knowledge of spelling, such as morphology and etymology. 	<p>As above and:</p> <ul style="list-style-type: none"> ▪ Write with consistency in size and proportion of letters, e.g. <u>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.</u>

Key Learning in Writing: Year 5

Composition		Transcription	
Vocabulary, grammar and punctuation	Composition	Spelling <i>(see also the Lancashire Supporting Spelling document for further detail and advice)</i>	Handwriting
<p>As above and:</p> <ul style="list-style-type: none"> ▪ Create complex sentences by using relative clauses with pronouns <i>who, which, where, whose, when, that</i> e.g. <i>Sam, who had remembered his wellies, was first to jump in the river. The robberies, which had taken place over the past month, remained unsolved.</i> ▪ Create and punctuate complex sentences using <i>ed</i> openers. ▪ Create and punctuate complex sentences using <i>ing</i> openers. ▪ Create and punctuate complex sentences using simile starters. ▪ Demarcate complex sentences using commas and explore ambiguity of meaning. ▪ Explore, collect and use modal verbs to indicate degrees of possibility e.g. <i>might, could, shall, will, must.</i> ▪ Use devices to build cohesion within a paragraph e.g. <i>firstly, then, presently, subsequently.</i> ▪ Link ideas across paragraphs using adverbials for time, place and numbers e.g. <i>later, nearby, secondly.</i> ▪ Identify and use brackets and dashes ▪ Use suffixes <i>-ate, -ise, -ify</i> to convert nouns and adjectives into verbs. ▪ Investigate verb prefixes e.g. <i>dis-, re-, pre-, mis-, over-</i>. 	<p>As above and:</p> <p>Plan their writing by:</p> <ul style="list-style-type: none"> ▪ Identifying the audience and purpose ▪ Selecting the appropriate language and structures. ▪ Using similar writing models. ▪ Noting and developing ideas. ▪ Drawing on reading and research. ▪ Thinking how authors develop characters and settings (in books, films and performances). <p>Draft and write by:</p> <ul style="list-style-type: none"> ▪ Selecting appropriate grammar and vocabulary. ▪ Blending action, dialogue and description within and across paragraphs. ▪ Using devices to build cohesion (see VGP column). ▪ <u>Using organisation and presentational devices e.g. headings, sub headings, bullet points, diagrams, text boxes.</u> <p>Evaluate and edit by:</p> <ul style="list-style-type: none"> ▪ Assessing the effectiveness of own and others' writing in relation to audience and purpose. ▪ <u>Suggesting changes to grammar, vocabulary and punctuation to enhance effects and clarify meaning.</u> ▪ Ensuring consistent and correct use of tense throughout a piece of writing. ▪ Ensuring consistent subject and verb agreement. ▪ Proofreading for spelling and punctuation errors. <p>Perform own compositions for different audiences:</p> <ul style="list-style-type: none"> ▪ Using appropriate intonation and volume. ▪ Adding movement. ▪ Ensuring meaning is clear. 	<p>As above and:</p> <ul style="list-style-type: none"> ▪ Spell words that they have not yet been taught by using what they have learnt about how spelling works in English. ▪ Use further prefixes and suffixes and understand the guidelines for adding them. ▪ Spell some words with 'silent' letters, e.g. <i>knight, psalm, solemn.</i> ▪ Continue to distinguish between homophones and other words which are often confused. ▪ Use knowledge of morphology and etymology in spelling and understand that the spelling of some words needs to be learnt specifically. ▪ <u>Use dictionaries to check the spelling and meaning of words.</u> ▪ <u>Use the first three or four letters of a word to check spelling, meaning or both of these in a dictionary.</u> ▪ <u>Use a thesaurus.</u> ▪ Use suffixes <i>-ate, -ise, -ify</i> to convert nouns and adjectives into verbs. ▪ Investigate verb prefixes e.g. <i>dis-, re-, pre-, mis-, over-</i>. 	<p>As above and:</p> <ul style="list-style-type: none"> ▪ Write fluently. ▪ <u>Choose when it is appropriate to print or join writing e.g. printing for labelling a scientific diagram.</u>

Key Learning in Writing: Year 6

Composition		Transcription	
Vocabulary, grammar and punctuation	Composition	Spelling <i>(see also the Lancashire Supporting Spelling document for further detail and advice)</i>	Handwriting
<p>As above and:</p> <ul style="list-style-type: none"> Manipulate sentences to create particular effects. Use devices to build cohesion between paragraphs in persuasive, discursive and explanatory texts e.g. <i>on the other hand, the opposing view, similarly, in contrast, although, additionally, another possibility, alternatively, as a consequence.</i> Use devices to build cohesion between paragraphs in narrative e.g. <i>in the meantime, meanwhile, in due course, until then.</i> Use ellipsis to link ideas between paragraphs. Identify and use colons to introduce a list. Identify and use semi-colons to mark the boundary between independent clauses e.g. <i>It is raining; I am fed up.</i> Investigate and collect a range of synonyms and antonyms e.g. <i>mischievous, wicked, evil, impish, spiteful, well-behaved.</i> Explore how hyphens can be used to avoid ambiguity e.g. <i>man eating shark</i> versus <i>man-eating shark.</i> Punctuate bullet points consistently Explore and collect vocabulary typical of formal and informal speech and writing e.g. find out – discover, ask for – request, go in – request. Identify the subject and object of a sentence. Explore and investigate active and passive e.g. <i>I broke the window in the greenhouse</i> versus <i>the window in the greenhouse was broken.</i> 	<p>As above and:</p> <p>Plan their writing by:</p> <ul style="list-style-type: none"> Identifying audience and purpose. Choose appropriate text-form and type for all writing. Selecting the appropriate language and structures. Drawing on similar writing models, reading and research. Using a range of planning approaches e.g. <i>storyboard, story mountain, discussion group, post-it notes, ICT story planning.</i> <p>Draft and write by:</p> <p><u>Selecting appropriate vocabulary and language effects, appropriate to task, audience and purpose, for precision and impact.</u></p> <ul style="list-style-type: none"> Introducing and developing characters through blending action, dialogue and description within sentences and paragraphs e.g. <i>Tom stomped into the room, flung down his grubby, school bag and announced, through gritted teeth, "It's not fair"</i> Using devices to build cohesion. Deviating narrative from linear or chronological sequence e.g. <i>flashbacks, simultaneous actions, time-shifts.</i> Combining text-types to create hybrid texts e.g. <i>persuasive speech.</i> <u>Evaluating, selecting and using a range of organisation and presentational devices for different purposes and audiences.</u> Finding examples of where authors have broken conventions to achieve specific effects and using similar techniques in own writing – e.g. <i>repeated use of 'and' to convey tedium, one word sentence.</i> 	<p>(see also the Lancashire Supporting Spelling document for further detail and advice)</p> <p>As above and:</p> <ul style="list-style-type: none"> Be secure with all spelling rules previously taught. Write increasingly confidently, accurately and fluently, spelling with automaticity. Use a number of different strategies interactively in order to spell correctly. <u>Develop self-checking and proof-checking strategies.</u> Use independent spelling strategies for spelling unfamiliar words. 	<p>As above and:</p> <ul style="list-style-type: none"> Write with increasing speed. Choosing the writing implement that is best suited for a task (e.g. <i>quick notes, letters</i>).

Key Learning in Writing: Year 6

- 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. *in formal reports, explanations and mystery narrative*.

Evaluate and edit by:

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

Evaluate and improve performances of compositions focusing on:

- Intonation and volume.
- Gesture and movement.
- Audience engagement.

Key Learning in Mathematics – Year 1

Number – number and place value	Number – addition and subtraction	Number – multiplication and division
<ul style="list-style-type: none"> ▪ <u>Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.</u> ▪ Count in multiples of twos, fives and tens. ▪ <u>Read and write numbers to 100 in numerals.</u> ▪ Read and write numbers from 1 to 20 in numerals and words. ▪ <u>Begin to recognise the place value of numbers beyond 20 (tens and ones).</u> ▪ <u>Identify and represent numbers using objects and pictorial representations including the number line (numbers to at least 30).</u> ▪ <u>Use the language of: equal to, more than, less than (fewer), most, least.</u> ▪ Given a number, identify one more and one less. ▪ <i>Recognise and create repeating patterns with numbers, objects and shapes.</i> ▪ <i>Identify odd and even numbers linked to counting in twos from 0 and 1.</i> ▪ <i>Solve problems and practical problems involving all of the above.</i> 	<ul style="list-style-type: none"> ▪ <u>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.</u> ▪ Represent and use number bonds and related subtraction facts within 20. ▪ <u>Add and subtract one-digit and two-digit numbers to 20, including zero (using concrete objects and pictorial representations).</u> ▪ Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$. 	<ul style="list-style-type: none"> ▪ <u>Recall and use doubles of all numbers to 10 and corresponding halves.</u> ▪ <u>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.</u>

Key Learning in Mathematics – Year 1

Number – fractions	Geometry – properties of shapes	Measurement
<ul style="list-style-type: none"> ▪ <u>Understand that a fraction can describe part of a whole.</u> ▪ <u>Understand that a unit fraction represents one equal part of a whole.</u> ▪ <u>Recognise, find and name a half as one of two equal parts of an object shape or quantity (including measure).</u> ▪ <u>Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity (including measure).</u> 	<ul style="list-style-type: none"> ▪ <u>Recognise and name common 2-D shapes, including rectangles (including squares), circles and triangles.</u> ▪ <u>Recognise and name common 3-D shapes, including cuboids (including cubes), pyramids and spheres.</u> <div style="background-color: #0056b3; color: white; padding: 2px;">Geometry – position and direction</div> <ul style="list-style-type: none"> ▪ Describe movement, including whole, half, quarter and three-quarter turns. ▪ <i>Recognise and create repeating patterns with objects and shapes.</i> ▪ Describe position and direction. 	<ul style="list-style-type: none"> ▪ Measure and begin to record: <ul style="list-style-type: none"> - lengths and heights, <i>using non-standard and then manageable standard units (m/cm)</i> - mass/weight, <i>using non-standard and then manageable standard units (kg/g)</i> - capacity and volume <i>using non-standard and then manageable standard units (litres/ml)</i> - time (hours/minutes/seconds) <i>within children's range of counting competence.</i> ▪ Compare, describe and solve practical problems for: <ul style="list-style-type: none"> - <u>lengths and heights (for example, long / short, longer / shorter, tall / short, double / half).</u> - <u>mass/weight (for example, heavy / light, heavier than, lighter than).</u> - <u>capacity and volume (for example, full/empty, more than, less than, half, half full, quarter).</u> - <u>time (for example, quicker, slower, earlier, later).</u> ▪ <u>Recognise and use language relating to dates, including days of the week, weeks, months and years.</u> ▪ Sequence events in chronological order using language (for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening). ▪ <u>Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.</u> ▪ <u>Recognise and know the value of different denominations of coins and notes.</u>
		<div style="background-color: #0056b3; color: white; padding: 2px;">Statistics</div> <ul style="list-style-type: none"> ▪ <u>Sort objects, numbers and shapes to a given criterion and their own.</u> ▪ <u>Present and interpret data in block diagrams using practical equipment.</u> ▪ <u>Ask and answer simple questions by counting the number of objects in each category.</u> ▪ <u>Ask and answer questions by comparing categorical data.</u>

Key Learning in Mathematics – Year 2

Number – number and place value	Number – addition and subtraction	Number – multiplication and division
<ul style="list-style-type: none"> ▪ 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. ▪ <u>Recognise the place value of each digit in a two-digit number (tens, ones).</u> ▪ <u>Identify, represent and estimate numbers using different representations, including the number line.</u> ▪ <u>Partition numbers in different ways (e.g. $23 = 20 + 3$ and $23 = 10 + 13$).</u> ▪ <u>Compare and order numbers from 0 up to 100; use $<$, $>$ and $=$ signs.</u> ▪ <u>Find 1 or 10 more or less than a given number.</u> ▪ <u>Round numbers to at least 100 to the nearest 10.</u> ▪ <u>Understand the connection between the 10 multiplication table and place value.</u> ▪ <u>Describe and extend simple sequences involving counting on or back in different steps.</u> ▪ Use place value and number facts to solve problems. 	<ul style="list-style-type: none"> ▪ <i>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting).</i> ▪ <i>Select a mental strategy appropriate for the numbers involved in the calculation.</i> ▪ Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. ▪ <i>Understand subtraction as take away and difference (how many more, how many less/fewer).</i> ▪ <u>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).</u> ▪ <u>Recall and use number bonds for multiples of 5 totalling 60 (to support telling time to nearest 5 minutes).</u> ▪ <u>Add and subtract numbers using concrete objects, pictorial representations, and mentally, including:</u> <ul style="list-style-type: none"> - <u>a two-digit number and ones.</u> - <u>a two-digit number and tens.</u> - <u>two two-digit numbers.</u> - <u>adding three one-digit numbers.</u> ▪ Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. ▪ <u>Solve problems with addition and subtraction including with missing numbers:</u> <ul style="list-style-type: none"> - <u>using concrete objects and pictorial representations, including those involving numbers, quantities and measures.</u> - applying their increasing knowledge of mental and written methods. 	<ul style="list-style-type: none"> ▪ <u>Understand multiplication as repeated addition and arrays.</u> ▪ <u>Understand division as sharing and grouping and that a division calculation can have a remainder.</u> ▪ Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. ▪ <u>Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.</u> ▪ <u>Derive and use doubles of simple two-digit numbers (numbers in which the ones total less than 10).</u> ▪ <u>Derive and use halves of simple two-digit even numbers (numbers in which the tens are even).</u> ▪ <u>Calculate mathematical statements for multiplication using repeated addition and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals ($=$) signs.</u> ▪ 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.

Key Learning in Mathematics – Year 2

Number – fractions	Geometry – properties of shapes	Measurement
<ul style="list-style-type: none"> ▪ <u>Understand and use the terms numerator and denominator.</u> ▪ <u>Understand that a fraction can describe part of a set.</u> ▪ <u>Understand that the larger the denominator is, the more pieces it is split into and therefore the smaller each part will be.</u> ▪ Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a <u>length, shape, set of objects or quantity.</u> ▪ Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$. ▪ <u>Count on and back in steps of $\frac{1}{2}$ and $\frac{1}{4}$.</u> 	<ul style="list-style-type: none"> ▪ <u>Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line.</u> ▪ <u>Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces.</u> ▪ Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]. <p style="text-align: center;">Geometry – position and direction</p> <ul style="list-style-type: none"> ▪ Order/arrange combinations of mathematical objects in patterns/sequences. ▪ <u>Use mathematical vocabulary to describe position, direction and movement</u>, 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). 	<ul style="list-style-type: none"> ▪ Choose and use appropriate standard units to estimate and measure <u>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).</u> ▪ 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. ▪ <u>Find different combinations of coins that equal the same amounts of money.</u> ▪ Compare and sequence intervals of time. ▪ <u>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.</u> ▪ <u>Know the number of minutes in an hour and the number of hours in a day.</u> ▪ Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change <i>and measures (including time).</i>
		<p style="text-align: center;">Statistics</p> <ul style="list-style-type: none"> ▪ Compare and sort <i>objects, numbers and</i> 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. ▪ <u>Ask and answer questions about totalling and comparing categorical data.</u>

Key Learning in Mathematics – Year 3

Number – number and place value	Number – addition and subtraction	Number – multiplication and division
<ul style="list-style-type: none"> ▪ Count from 0 in multiples of 4, 8, 50 and 100. ▪ Count up and down in tenths. ▪ <u>Read and write numbers up to 1000 in numerals and in words.</u> ▪ <u>Read and write numbers with one decimal place.</u> ▪ <u>Identify, represent and estimate numbers using different representations (including the number line).</u> ▪ <u>Recognise the place value of each digit in a three-digit number (hundreds, tens, ones).</u> ▪ <u>Identify the value of each digit to one decimal place.</u> ▪ <u>Partition numbers in different ways (e.g. $146 = 100 + 40 + 6$ and $146 = 130 + 16$).</u> ▪ <u>Compare and order numbers up to 1000.</u> ▪ <u>Compare and order numbers with one decimal place.</u> ▪ <u>Find 1, 10 or 100 more or less than a given number.</u> ▪ <u>Round numbers to at least 1000 to the nearest 10 or 100.</u> ▪ <u>Find the effect of multiplying a one- or two-digit number by 10 and 100, identify the value of the digits in the answer.</u> ▪ <u>Describe and extend number sequences involving counting on or back in different steps.</u> ▪ <u>Read Roman numerals from I to XII.</u> ▪ Solve number problems and practical problems involving these ideas. 	<ul style="list-style-type: none"> ▪ <u>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).</u> ▪ <u>Select a mental strategy appropriate for the numbers involved in the calculation.</u> ▪ <u>Understand and use take away and difference for subtraction, deciding on the most efficient method for the numbers involved, irrespective of context.</u> ▪ <u>Recall/use addition/subtraction facts for 100 (multiples of 5 and 10).</u> ▪ <u>Derive and use addition and subtraction facts for 100.</u> ▪ <u>Derive and use addition and subtraction facts for multiples of 100 totalling 1000.</u> ▪ <u>Add and subtract numbers mentally, including:</u> <ul style="list-style-type: none"> - <u>a three-digit number and ones.</u> - <u>a three-digit number and tens.</u> - <u>a three-digit number and hundreds.</u> ▪ <u>Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.</u> ▪ <u>Estimate the answer to a calculation and use inverse operations to check answers.</u> ▪ <u>Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</u> 	<ul style="list-style-type: none"> ▪ <u>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).</u> ▪ <u>Understand that division is the inverse of multiplication and vice versa.</u> ▪ <u>Understand how multiplication and division statements can be represented using arrays.</u> ▪ <u>Understand division as sharing and grouping and use each appropriately.</u> ▪ <u>Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</u> ▪ <u>Derive and use doubles of all numbers to 100 and corresponding halves.</u> ▪ <u>Derive and use doubles of all multiples of 50 to 500.</u> ▪ <u>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.</u> ▪ <u>Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.</u> ▪ <u>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.</u>

Key Learning in Mathematics – Year 3

Number – fractions	Geometry – properties of shapes	Measurement
<ul style="list-style-type: none"> ▪ <i>Show practically or pictorially that a fraction is one whole number divided by another (e.g. $\frac{3}{4}$ can be interpreted as $3 \div 4$).</i> ▪ <i>Understand that finding a fraction of an amount relates to division.</i> ▪ <i>Recognise that tenths arise from dividing objects into 10 equal parts and in dividing one-digit numbers or quantities by 10.</i> ▪ <i>Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.</i> ▪ <i>Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.</i> ▪ <i>Recognise and show, using diagrams, equivalent fractions with small denominators.</i> ▪ <i>Add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$].</i> ▪ <i>Compare and order unit fractions, and fractions with the same denominators (including on a number line).</i> ▪ <i>Count on and back in steps of $\frac{1}{2}$, $\frac{1}{4}$ and $\frac{1}{3}$.</i> ▪ <i>Solve problems that involve all of the above.</i> 	<ul style="list-style-type: none"> ▪ <i>Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them.</i> ▪ <i>Recognise angles as a property of shape or a description of a turn.</i> ▪ <i>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.</i> ▪ <i>Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.</i> <p>Geometry – position and direction</p> <ul style="list-style-type: none"> ▪ <i>Describe positions on a square grid labelled with letters and numbers.</i> 	<ul style="list-style-type: none"> ▪ <i>Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).</i> ▪ <i>Continue to estimate and measure temperature to the nearest degree (°C) using thermometers.</i> ▪ <i>Understand perimeter is a measure of distance around the boundary of a shape.</i> ▪ <i>Measure the perimeter of simple 2-D shapes.</i> ▪ <i>Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.</i> ▪ <i>Estimate/read time with increasing accuracy to the nearest minute.</i> ▪ <i>Record/compare time in terms of seconds, minutes, hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon, midnight.</i> ▪ <i>Know the number of seconds in a minute and the number of days in each month, year and leap year.</i> ▪ <i>Compare durations of events [for example to calculate the time taken by particular events or tasks].</i> ▪ <i>Continue to recognise and use the symbols for pounds (£) and pence (p) and understand that the decimal point separates pounds/pence.</i> ▪ <i>Recognise that ten 10p coins equal £1 and that each coin is $\frac{1}{10}$ of £1.</i> ▪ <i>Add and subtract amounts of money to give change, using both £ and p in practical contexts.</i> ▪ <i>Solve problems involving money and measures and simple problems involving passage of time.</i>
		<p>Statistics</p> <ul style="list-style-type: none"> ▪ <i>Use sorting diagrams to compare and sort objects, numbers and common 2-D and 3-D shapes and everyday objects.</i> ▪ <i>Interpret and present data using bar charts, pictograms and tables.</i> ▪ <i>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.</i>

Key Learning in Mathematics – Year 4

Number – number and place value	Number – addition and subtraction	Number – multiplication and division
<ul style="list-style-type: none"> ▪ Count in multiples of 6, 7, 9, 25 and 1000. ▪ Count backwards through zero to include negative numbers. ▪ Count up and down in hundredths. ▪ <u>Read and write numbers to at least 10 000.</u> ▪ <u>Read and write numbers with up to two decimal places.</u> ▪ <u>Recognise the place value of each digit in a four-digit number.</u> ▪ <u>Identify the value of each digit to two decimal places.</u> ▪ <u>Partition numbers in different ways (e.g. $2.3 = 2+0.3$ & $1+1.3$).</u> ▪ <u>Identify, represent and estimate numbers using different representations (including the number line).</u> ▪ <u>Order and compare numbers beyond 1000.</u> ▪ <u>Order and compare numbers with the same number of decimal places up to two decimal places.</u> ▪ <u>Find 0.1, 1, 10, 100 or 1000 more or less than a given number.</u> ▪ <u>Round any number to the nearest 10, 100 or 1000.</u> ▪ <u>Round decimals (one decimal place) to the nearest whole number.</u> ▪ <u>Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer.</u> ▪ <u>Describe and extend number sequences involving counting on or back in different steps, including sequences with multiplication and division steps.</u> ▪ 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. 	<ul style="list-style-type: none"> ▪ <u>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).</u> ▪ <u>Select a mental strategy appropriate for the numbers involved in the calculation.</u> ▪ <u>Recall and use addition and subtraction facts for 100.</u> ▪ <u>Recall and use +/- facts for multiples of 100 totalling 1000.</u> ▪ <u>Derive and use addition and subtraction facts for 1 and 10 (with decimal numbers to one decimal place).</u> ▪ <u>Add and subtract mentally combinations of two and three digit numbers and decimals to one decimal place.</u> ▪ <u>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.</u> ▪ <u>Estimate; use inverse operations to check answers to a calculation.</u> ▪ Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. ▪ <u>Solve addition and subtraction problems involving missing numbers.</u> 	<ul style="list-style-type: none"> ▪ <u>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).</u> ▪ Recognise and use factor pairs and commutativity in mental calculations. ▪ <u>Recall multiplication and division facts for multiplication tables up to 12×12.</u> ▪ <u>Use partitioning to double or halve any number, including decimals to one decimal place.</u> ▪ Use place value, known and derived facts to multiply and divide mentally, including: <ul style="list-style-type: none"> - multiplying by 0 and 1. - dividing by 1. - multiplying together three numbers. ▪ <u>Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.</u> ▪ <u>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.</u> ▪ <u>Use estimation and inverse to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.</u> ▪ Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, <i>division (including interpreting remainders)</i>, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.

Key Learning in Mathematics – Year 4

Number – fractions, decimals and percentages	Geometry – properties of shapes	Measurement
<ul style="list-style-type: none"> ▪ <i>Understand that a fraction is one whole number divided by another (e.g. $\frac{3}{4}$ can be interpreted as $3 \div 4$).</i> ▪ <i>Recognise, find and write fractions of a discrete set of objects including those with a range of numerators and denominators.</i> ▪ <i>Recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.</i> ▪ <i>Count on and back in steps of unit fractions.</i> ▪ <i>Compare and order unit fractions and fractions with the same denominators (including on a number line).</i> ▪ <i>Recognise and show, using diagrams, families of common equivalent fractions.</i> ▪ <i>Recognise and write decimal equivalents of any number of tenths or hundredths.</i> ▪ <i>Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$.</i> ▪ <i>Add and subtract fractions with the same denominator (using diagrams).</i> ▪ <i>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.</i> ▪ <i>Solve simple measure and money problems involving fractions and decimals to two decimal places.</i> 	<ul style="list-style-type: none"> ▪ <i>Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.</i> ▪ <i>Identify lines of symmetry in 2-D shapes presented in different orientations.</i> ▪ <i>Complete a simple symmetric figure with respect to a specific line of symmetry.</i> ▪ <i>Continue to identify horizontal and vertical lines and pairs of perpendicular and parallel lines.</i> ▪ <i>Identify acute and obtuse angles and compare and order angles up to two right angles by size.</i> <ul style="list-style-type: none"> ▪ Geometry – position and direction ▪ <i>Describe positions on a 2-D grid as coordinates in the first quadrant.</i> ▪ <i>Plot specified points and draw sides to complete a given polygon.</i> ▪ <i>Describe movements between positions as translations of a given unit to the left/right and up/down.</i> 	<ul style="list-style-type: none"> ▪ <i>Estimate, compare and calculate different measures, including money in pounds and pence.</i> ▪ <i>Order temperatures including those below 0°C.</i> ▪ <i>Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.</i> ▪ <i>Know area is a measure of surface within a given boundary.</i> ▪ <i>Find the area of rectilinear shapes by counting squares.</i> ▪ <i>Convert between different units of measure [e.g. kilometre to metre; hour to minute].</i> ▪ <i>Read, write and convert time between analogue and digital 12- and 24-hour clocks.</i> ▪ <i>Write amounts of money using decimal notation.</i> ▪ <i>Recognise that one hundred 1p coins equal £1 and that each coin is $\frac{1}{100}$ of £1.</i> ▪ <i>Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days and problems involving money and measures.</i>
		<ul style="list-style-type: none"> ▪ Statistics ▪ <i>Use a variety of sorting diagrams to compare and classify numbers and geometric shapes based on their properties and sizes.</i> ▪ <i>Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts, time graphs.</i> ▪ <i>Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.</i>

Key Learning in Mathematics – Year 5

Number – number and place value	Number – addition and subtraction	Number – multiplication and division
<ul style="list-style-type: none"> ▪ Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000. ▪ <i>Count forwards and backwards in decimal steps.</i> ▪ <u>Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit.</u> ▪ <u>Read, write, order and compare numbers with up to 3 decimal places.</u> ▪ <u>Identify the value of each digit to three decimal places.</u> ▪ <u>Identify represent and estimate numbers using the number line.</u> ▪ <u>Find 0.01, 0.1, 1, 10, 100, 100 and other powers of 10 more or less than a given number.</u> ▪ <u>Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000.</u> ▪ Round decimals with two decimal places to the nearest whole number and to one decimal place. ▪ <u>Multiply/divide whole numbers and decimals by 10, 100 and 1000.</u> ▪ <u>Interpret negative numbers in context, count on and back with positive and negative whole numbers, including through zero.</u> ▪ <u>Describe and extend number sequences including those with multiplication/division steps and where the step size is a decimal.</u> ▪ Read Roman numerals to 1000 (M); recognise years written as such. ▪ Solve number and practical problems that involve all of the above. 	<ul style="list-style-type: none"> ▪ <u>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).</u> ▪ <u>Select a mental strategy appropriate for the numbers involved in the calculation.</u> ▪ <u>Recall and use addition and subtraction facts for 1 and 10 (with decimal numbers to one decimal place).</u> ▪ <u>Derive and use addition and subtraction facts for 1 (with decimal numbers to two decimal places).</u> ▪ <u>Add and subtract numbers mentally with increasingly large numbers and decimals to two decimal places.</u> ▪ <u>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).</u> ▪ Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. ▪ <u>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</u> ▪ <u>Solve addition and subtraction problems involving missing numbers.</u> 	<ul style="list-style-type: none"> ▪ <u>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).</u> ▪ <u>Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.</u> ▪ 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. ▪ <u>Use partitioning to double or halve any number, including decimals to two decimal places.</u> ▪ <u>Multiply and divide numbers mentally drawing upon known facts.</u> ▪ <u>Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.</u> ▪ <u>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.</u> ▪ <u>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.</u> ▪ <u>Use estimation/inverse to check answers to calculations; determine, in the context of a problem, an appropriate degree of accuracy.</u> ▪ 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.

Key Learning in Mathematics – Year 5

Number – fractions, decimals and percentages	Geometry – properties of shapes	Measurement
<ul style="list-style-type: none"> ▪ <u>Recognise mixed numbers and improper fractions and convert from one form to the other.</u> ▪ Read and write decimal numbers as fractions (e.g. $0.71 = \frac{71}{100}$). ▪ <u>Count on and back in mixed number steps such as $1\frac{1}{2}$.</u> ▪ Compare and order fractions whose denominators are all multiples of the same number (<i>including on a number line</i>). ▪ <u>Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.</u> ▪ <u>Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.</u> ▪ <u>Add and subtract fractions with denominators that are the same and that are multiples of the same number (using diagrams).</u> ▪ 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. ▪ <u>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.</u> ▪ <i>Solve problems involving fractions and decimals to three places.</i> ▪ 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. 	<ul style="list-style-type: none"> ▪ <u>Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</u> ▪ 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. ▪ <u>Draw given angles, and measure them in degrees (°).</u> ▪ <u>Identify:</u> <ul style="list-style-type: none"> - 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°. 	<ul style="list-style-type: none"> ▪ <i>Use, read and write standard units of length and mass.</i> ▪ <u>Estimate (and calculate) volume (e.g., using 1 cm³ blocks to build cuboids (including cubes)) and capacity (e.g. using water).</u> ▪ <i>Understand the difference between liquid volume and solid volume.</i> ▪ <i>Continue to order temperatures including those below 0°C.</i> ▪ <u>Convert between different units of metric measure.</u> ▪ <u>Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.</u> ▪ Measure/calculate the perimeter of composite rectilinear shapes. ▪ <u>Calculate and compare the area of rectangle, use standard units square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes.</u> ▪ <i>Continue to read, write and convert time between analogue and digital 12 and 24-hour clocks.</i> ▪ Solve problems involving converting between units of time. ▪ <u>Use all four operations to solve problems involving measure using decimal notation, including scaling.</u>
	<h3>Geometry – position and direction</h3>	
	<ul style="list-style-type: none"> ▪ <i>Describe positions on the first quadrant of a coordinate grid.</i> ▪ <u>Plot specified points and complete shapes.</u> ▪ 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. 	
		<h3>Statistics</h3>
		<ul style="list-style-type: none"> ▪ <i>Complete and interpret information in a variety of sorting diagrams (including those used to sort properties of numbers and shapes).</i> ▪ <u>Complete, read and interpret information in tables and timetables.</u> ▪ Solve comparison, sum and difference problems using information presented in <i>all types of graph including a line graph.</i> ▪ <i>Calculate and interpret the mode, median and range.</i>

Key Learning in Mathematics – Year 6

Number – number and place value	Number – addition and subtraction	Number – multiplication and division
<ul style="list-style-type: none"> ▪ <u>Count forwards or backwards in steps of integers, decimals, powers of 10.</u> ▪ <u>Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.</u> ▪ <u>Identify the value of each digit to three decimal places.</u> ▪ <u>Identify, represent and estimate numbers using the number line.</u> ▪ <u>Order and compare numbers including integers, decimals and negative numbers.</u> ▪ <u>Find 0.001, 0.01, 0.1, 1, 10 and powers of 10 more/less than a given number.</u> ▪ <u>Round any whole number to a required degree of accuracy.</u> ▪ <u>Round decimals with three decimal places to the nearest whole number or one or two decimal places.</u> ▪ <u>Multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places.</u> ▪ <u>Use negative numbers in context, and calculate intervals across zero.</u> ▪ <u>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.</u> ▪ <u>Solve number and practical problems that involve all of the above.</u> 	<ul style="list-style-type: none"> ▪ <u>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).</u> ▪ <u>Select a mental strategy appropriate for the numbers in the calculation.</u> ▪ <u>Recall and use addition and subtraction facts for 1 (with decimals to two decimal places).</u> ▪ <u>Perform mental calculations including with mixed operations and large numbers and decimals.</u> ▪ <u>Add and subtract whole numbers and decimals using formal written methods (columnar addition and subtraction).</u> ▪ <u>Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.</u> ▪ <u>Use knowledge of the order of operations to carry out calculations.</u> ▪ <u>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</u> ▪ <u>Solve problems involving all four operations, including those with missing numbers.</u> 	<ul style="list-style-type: none"> ▪ <u>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method).</u> ▪ <u>Identify common factors, common multiples and prime numbers.</u> ▪ <u>Use partitioning to double or halve any number.</u> ▪ <u>Perform mental calculations, including with mixed operations and large numbers.</u> ▪ <u>Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.</u> ▪ <u>Multiply one-digit numbers with up to two decimal places by whole numbers.</u> ▪ <u>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.</u> ▪ <u>Use written division methods in cases where the answer has up to two decimal places.</u> ▪ <u>Use estimation and inverse to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.</u> ▪ <u>Use knowledge of the order of operations to carry out calculations.</u> ▪ <u>Solve problems involving all four operations, including those with missing numbers.</u>

Key Learning in Mathematics – Year 6

Number – fractions, decimals and percentages	Geometry – properties of shapes	Measurement
<ul style="list-style-type: none"> ▪ Compare and order fractions, including fractions > 1 (<i>including on a number line</i>). ▪ <u>Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.</u> ▪ <u>Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.</u> ▪ Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375 and $\frac{3}{8}$). ▪ <u>Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.</u> ▪ <u>Multiply simple pairs of proper fractions, writing the answer in its simplest form</u> (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$). ▪ Divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$). ▪ <i>Find simple percentages of amounts.</i> ▪ <i>Solve problems involving fractions.</i> ▪ Solve problems which require answers to be rounded to specified degrees of accuracy. ▪ <u>Solve problems involving the calculation of percentages (e.g. of measures and such as 15% of 260) and the use of percentages for comparison.</u> 	<ul style="list-style-type: none"> ▪ Compare/classify geometric shapes based on the properties and sizes. ▪ <u>Draw 2-D shapes using given dimensions and angles.</u> ▪ 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. ▪ <u>Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.</u> ▪ <u>Find unknown angles in any triangles, quadrilaterals, regular polygons.</u> <p>Geometry – position and direction</p> <ul style="list-style-type: none"> • <u>Describe positions on the full coordinate grid (all four quadrants).</u> • Draw and translate simple shapes on the coordinate plane, and reflect them in the axes. 	<ul style="list-style-type: none"> ▪ <u>Use, read and write standard units of length, mass, volume and time using decimal notation to three decimal places.</u> ▪ 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 (cm³) and cubic metres (m³), and extending to other units (e.g. mm³ and km³). ▪ <i>Calculate differences in temperature, including those that involved a positive and negative temperature.</i> ▪ <u>Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.</u>
Ratio and proportion	Algebra	Statistics
<ul style="list-style-type: none"> ▪ 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. 	<ul style="list-style-type: none"> ▪ Use simple formulae. ▪ Generate and describe linear number sequences. ▪ <u>Express missing number problems algebraically.</u> ▪ <u>Find pairs of numbers that satisfy an equation with two unknowns.</u> ▪ Enumerate possibilities of combinations of two variables. 	<ul style="list-style-type: none"> ▪ <i>Continue to complete and interpret information in a variety of sorting diagrams (including sorting properties of numbers and shapes).</i> ▪ <u>Interpret</u> and construct <u>pie charts and line graphs</u> and use these to solve problems. ▪ <i>Solve comparison, sum and difference problems using information presented in all types of graph.</i> ▪ Calculate and interpret the mean as an average.