SUGGESTED EXPANDED DESCRIPTORS

Version 2

Suggested Expanded Descriptors

Schools now have the freedom to assess and track as they wish. Currently the only requirement on schools from the DfE is that any assessment system should reflect the New National Curriculum and;

- Support teachers with their planning, including targeting support
- Support leaders in identifying successes and next step priorities
- Support governors in challenging underperformance
- Support parents in knowing their child's strengths/weaknesses against national expectations

These materials are the product of a cross-LA project and aim to support teachers with on-going assessment and making periodic judgements to support tracking. They are only one of the myriad of tools out there for schools to choose from, including devising their own.

How to use these materials

The PoS Summary aims to guide teachers to the correct column in the first instance.

If the PoS summary typically describes the pupil's attainment the teacher should continue down into the finer detail set out in the middle column. The bullets may be used as a gap analysis.
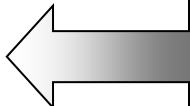
If the pupil is not meeting the criteria in the PoS summary then the teacher should look at the first column.

Similarly if the pupil is clearly working above the summary statement, then look they should look to the final column.
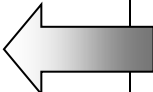
Awarding Grades

Lower Attainers/SEN	EMERGING	MET-	**MET**	MET+	DEEP	G&T
In some special cases the teacher may wish to look at lower year group expectations to ensure assessment reflects actual attainment. This is likely to be scrutinised in inspection	Evidence shows that the pupil is working below expectations set out in the middle column, but meets the **majority** of the statements in the EMERGING column.	Evidence shows that the pupil can use and apply the **some** of the statements in the middle column but not consistently and sometimes needs support. They are therefore Working Towards the End of Year Expectations.	**Evidence shows that the pupil can consistently and independently use and apply the <u>majority</u> of the statements set out in the middle column and have therefore *typically* MET the End of Year Expectations.**	Evidence shows that the pupil is working beyond the End of Year Expectations and has moved on to meeting **some** of the statements in the DEEP column	Evidence shows that the pupil is working well beyond the End of Year Expectations and that the pupil can consistently and independently use and apply the **majority** of the statements in the DEEP column.	In some special cases the teacher may wish to look at higher year group expectations to ensure tracking reflects actual attainment. This is likely to be scrutinised in inspection

Year 1 Writing

Start	Emerging	MET-	**MET**	MET+	Deep

Independent writing shows some features of the given text type when writing about personal experiences and those of others (real and fictional), writing about real events and writing poetry, however pieces may not always maintain form. The writer rehearses what they are going to write about and composes sentences orally before writing them. Sentences build short narratives, with some evidence of simple clauses. Spellings set out in Appendix 1 are mainly accurate including days of the week. The use of punctuation marks outlined in Y1 Appendix 2 is starting to develop. Letters and numbers are mostly formed accurately. Writing is read out loud to check it makes sense.

Emerging

- When writing about personal experiences and real events, the writer can talk about what they are going to write about.

- Writing demonstrates single simple sentences.

- There is some evidence of playing with punctuation marks.

- Most words containing previously taught phonemes, GPCs, common exception words are spelt accurately (in line with appendix 1).

- Lower case letters are mostly formed and orientated accurately, starting and finishing in the correct place.
- Capital letters and digits 0 to 9 are mostly formed and orientated accurately.

- The writer reads out loud to check it makes sense and changes made with support.

MET-

- Single clause sentences are sequenced to form short narratives.
- Some use of simple co-ordination is evident using 'and' to join clauses.

- Beginning to punctuate sentences using capital letters and a full stops, question marks or exclamation marks.

- Capital letter for names of people, places, the days of the week, and the personal pronoun 'I'.

- Most words containing previously taught phonemes, GPCs and common exception words set out in Y1 Appendix 1.
- Days of the week are spelt accurately.
- –s/-es is used for plurals and there is increasingly accurate use of the prefix un- and suffixes –ing, -ed, -er, and –est where no change is needed in the spelling of the root word. *[eg helping, helped, helper, eating, quicker, quickest].*

- Lower case letters are mostly formed and orientated accurately, starting and finishing in the correct place.
- Capital letters and digits 0 to 9 are mostly formed and orientated accurately.
- There is some consistency in the size and spacing of digits and letters throughout the writing.
- Spacing between words is mostly appropriate.

- Writing is read out loud to check it makes sense and some changes made independently.

MET+

- Writing is beginning to demonstrate an understanding of features of different text types, with some independent choices being made accordingly.
- Form is increasingly maintained across writing.

- Some playing with punctuation and grammar beyond their PoS is evident.

- The writer indepdently sustains ideas across short narratives.

- Competent use of co-ordination is evident in independent writing.
- The writer is realising that repetitive use of 'and' becomes boring for the reader.
- Writing shows some awareness of other words that can join clauses as drawn from their wider reader.

- Capital letters, full stops, question marks or exclamation marks demarcate most sentences with different functions.

- Spelling rules are beginning to be independently applied in their own writing with increasingly accuracy.

- Lower case, capital letters and numbers are formed and orientated accurately. Consistency in the size and spacing of digits and letters is maintained throughout the writing. Spacing between words is mostly appropriate.

- Writing is checked and improved with independence.

ARE SUMMARY   Composition   Grammar & Punctuation   Spelling   Handwriting

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Independent writing maintains form when writing narratives about personal experiences and those of others (real and fictional), writing about real events and writing poetry. Ideas from their reading are directly drawn into their writing through magpie-ing. Well sequenced ideas form longer narratives. Adjectives, adverbs and expanded noun phrases are used to add description. Appropriate use of present and past tense, including the progressive form to mark actions in progress throughout writing (eg have, had, will). Key words set out in Y1/2 Appendix 1 are spelt correctly and more complex spellings are phonetically plausible. Punctuation in Y1/2 Appendix 2 is mostly correct. Handwriting is legible with some joining. Writing is checked and improvements made.
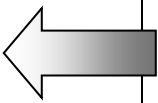
Start / Emerging column:

- Writing uses some of features of the given text type and form is increasingly maintained.

- Writing demonstrates mostly grammatically accurate sentences, sequenced to form longer narratives.
- Use of noun phrases and adjectives add description with support.

- Writing demonstrates a variety of simple sentences and use of compound sentences.

- Is realising that repetitive use of 'and' becomes boring for the reader.

- Capital letters, full stops, question marks or exclamation marks demarcate most sentences and with scaffolding commas are used to separate items in a list
- There is some attempted use of apostrophes for contractions, which is not always successful.

- Spellings set out in Y1 Appendix 1 are spelt accurately.
- Writing demonstrates some use of the spelling rules set out in Appendix 1.

- Lower case and capital letters are mostly formed and orientated accurately.
- The consistency in the size and spacing is maintained through most of their writing.

- Writing is checked for errors in spelling, grammar, punctuation and meaning and improvements being made with support.

MET- column:

- Simple sentences are grammatically correct across a range of forms and functions (e.g. statements, questions, exclamations and commands).
- Writing shows co-ordination using *or/and/but* and subordination using *when/if/that/because.*
- Overall writing is starting to show features of written Standard English.

- Punctuation in line with Y1/2 Appendix 2 is mostly correct including:
  - capital letters, full stops, exclamation marks and question marks to demarcate sentence boundaries;
  - commas to separate items in lists;
  - apostrophes for some contracted forms and some singular possession in nouns.

- GPCs, common exception words and contractions set out in Y1/2 Appendix 1 are spelt correctly.
- Suffixes are used correctly to spell longer words, including *–ment, –ness, –ful, –less, –ly.*
- More complex spellings are phonetically plausible.

- Handwriting is legible.
- Words are almost always appropriately and consistently spaced in relation to the size of the letters.
- Lower-case letters are of the correct size relative to one another
- Capital letters and digits are of the correct size, orientation and relationship to one another and to lower case letters.
- Diagonal and horizontal strokes are beginning to be used to join letters.

- Writing is checked for errors in spelling, grammar and punctuation and meaning with improvements then being made.

MET+ column:

- Writing demonstrate an understanding of a wider range of different text types, with some choices being made accordingly.
- The writer independently maintains an appropriate form throughout longer pieces of writing.
- Ideas from across their reading influence their writing.

- Independent writing demonstrates a variety of correctly punctuated sentences with different structures and functions.
- The present and past tense, including the progressive form, are correctly chosen independently and used consistently throughout writing.

- Some playing with punctuation and grammar beyond their PoS is evident.

- The write is starting to independently demonstrate a range of more complex sentences and a blend of co-ordination and subordination to extend ideas in different ways.

- The use of common punctuation is accurate, including the use of apostrophes.

- Spelling is mostly accurate, with only a few errors in more ambitious vocabulary choices.

- Handwriting is legible and consistent in size and spacing with increasing attempts to join letters.

- Evaluation of the effectiveness of word choice, grammar and punctuation in their own writing leads to changes, often without prompting.

Year 3 Writing				
Start	*Emerging*	*MET-*	***MET***	*MET+*	*Deep*

Independent writing effectively uses features of the given form and is appropriate to audience, purpose and context. Ideas from across their reading influence their writing. By adding detail, the writer brings settings and characters to life along with a coherent plot. Adverbs and prepositions enhance meaning and sentences are extended using a range of conjunctions. Paragraphs group related information in non-narratives. Spellings set out in Y3 Appendix 1 are mostly accurate, with spelling of more complex words being phonetically plausible. Puncutaion in line with Y3 Appendix 2 is almost always accurate, including some use of inverted commas. Handwriting is legible, including when joining. The writer can evaluate writing and suggest improvements.

Emerging column:

- Writing demonstrates some features of the given form, as appropriate to audience, purpose and context, but often reflects scaffolding or support given.

- Plot, settings and characters from their own reading, or given structures are used as the basis of their own narrative writing.

- In non-narratives, related information is starting to be presented together when scaffolded.

- Writing uses a range of sentences with different structures & functions.
- Understanding of the function of adverbs and prepositions is developing, but not yet consistently used in their own writing.
- Tenses are chosen accurately and used consistently.
- Present perfect form is starting to be used when scaffolded (e.g. He has gone out to play vs. He went out to play).

- Common punctuation is mostly accurate (e.g. full stops, capital letters, questions marks, commas and apostrophes), however punctuation of direct speech is inconsistent.

- Spellings for Y1 & Y2 in Appendix 1 are usually accurate and more complex spellings are phonetically plausible.
- Spelling demonstrates some understanding of prefixes. Use 'a' or 'an' is accurate.

- Handwriting is legible and consistent in size and spacing with increasing attempts to join letters.

- Writing is self-checked for errors in spelling, grammar and punctuation and meaning.
- With support simple improvements to grammar and vocabulary in others' writing are suggested.

MET- column:

- In narratives, simple settings, characters are independently created along with a coherent plot.
- Direct speech is used in a simple way.

- In non-narratives, paragraphs are beginning to be used to group information and related material.

- Sentences with more than one clause are increasingly evident, using a wider range of conjunctions *(e.g. when, if, because, although).*
- Adverbs *(e.g. then, next, soon, therefore),* or prepositions *(e.g. before, after, during, in, because of)* enhance sentence meaning.
- Tense choice is accurate and maintained.
- Where appropriate the present perfect is used instead of the simple past.

- Common punctuation is almost always accurate.
- Some use of inverted commas is used indicate direct speech.

- Some grammar errors are self-corrected at the redrafting stage.

- Common exception words set out in Y3 Appendix 1 are spelt correctly
- More complex spellings are phonetically plausible or linked to taught word families *(e.g. solve, solution, solver, dissolve, insoluble).*
- The formation of nouns using a range of prefixes is usually correct *(e.g. super–, anti–, auto–).*

- Handwriting is legible with increasing consistency when joining.

- Evaluation of the effectiveness of own and others' writing is used to suggest improvements to meaning, grammar and vocabulary.

MET+ column:

- Writing demonstrates a deep understanding of a range of taught text types, with independent choices being made appropriate to form, audience, purpose and context.

- In narratives, plot, settings and characters are successfully created in more creative ways, supported well by character dialogue.

- In non-narratives, paragraphs are used effectively to group information and related material to aid cohesion.

- Some playing with grammar and devices beyond their PoS is evident.

- Writing demonstrates competent use of a range of sentence structures, including those with more than one clause.
- Writing shows conscious independent choices around adverbs and prepositions for particular effect.
- Writing maintains tense, with the writer independently switching tense where appropriate (e.g. flashback).

- Use of common punctuation is accurate, including correct punctuation of direct speech within a range of sentence structure (e.g. He said " ", " " John shouted)

- Spelling is mostly accurate, including that of more ambitious vocabulary choices.

- Handwriting is increasingly legible and consistent, including fluent joining.

- Evaluation of the effectiveness of their own and others' writing leads to suggested improvements as to content, grammar and vocabulary.

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| ARE SUMMARY | Composition | Grammar & Punctuation | Spelling | Handwriting |

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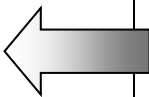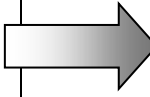## Year 4 Writing

Start	Emerging	MET-	**MET**	MET+	Deep

Independent writing demonstrates an understanding of a range of taught text types. Writing is appropriate to audience, purpose and context, and shows increasing cohesion. Detail adds interest for the reader, including use of fronted adverbials and sentences with more than one clause. Spelling in increasingly accurate in line with Y3/4 Appendix 1. Tenses are maintained and common punctuation as set out in Y3/4 Appendix 2 is accurate. Paragraphing is used to group ideas. Spelling, punctuation and grammar errors are often self-corrected at the re-drafting stage.

Emerging

- Writing effectively uses features of the given form and is appropriate to audience, purpose and context.

- In narratives increasingly detailed settings, characters are created around a coherent plot.
- Paragraphs are beginning to be used to group related ideas. In places writing lacks cohesion.

- In non-narratives, paragraphs group related information.
- With support further devices are used to aid presentation of information.

- Basic grammar is accurate, but sometimes reflects local spoken forms.
- Writing demonstrates competent use of a range of sentence structures, including those with more than one clause.
- A range of word and phrase choices enhance meaning and avoid repetition.
- Tenses are chosen accurately and used consistently.
- Common punctuation is almost always accurate, (e.g. full stops, capital letters, questions marks, commas and apostrophes and inverted commas). Corrections are made with support.

- Spellings set out in Y1-Y3 Appendix 1 are usually accurate, with more complex spellings are phonetically plausible.
- There is some evidence of root words being used to spell longer words.
- Homophones are sometimes confused.

- Handwriting is increasingly legible and consistent. There is an understanding that some adjacent letters may be best left un-joined.

- Writing is self-checked for errors in spelling, grammar and punctuation and meaning.
- With support simple improvements to ideas and content in others' writing are suggested.

MET

- In narratives, more detailed settings, characters are created along with a coherent plot.
- Conjunctions, adverbs and prepositions are used to express time, place or cause.
- Fronted adverbials add detail.
- Paragraphs are used to group related ideas.

- In non-narratives, simple organisational devices, including headings and sub-headings aid presentation.

- Basic grammar is accurate reflecting written Standard English instead of local spoken forms.
- Use of plurals (-s/es) and possessive apostrophe is mainly accurate.
- Writing often demonstrates a range of conjunctions, including *when, if, because & although*, to write sentences containing more than one clause.
- Noun or pronouns are used to add clarity and cohesion or avoid repetition.
- Fronted adverbials are used accurately.
- Tense choice is accurate and maintained. Tenses change where appropriate.

- Common punctuation in line with Y3/4 Appendix 2 is accurate, including:
  - Commas after fronted adverbials;
  - Punctuation of direct speech.

- Grammar errors are often self-corrected at the redrafting stage.

- Spelling in line with Y3/4 Appendix 1 is increasingly accurate including prefixes and suffixes, further homophones and some words that are often misspelt.
- Possessive apostrophe is used accurately in words with regular plurals *[eg girls', boys']* and in words with irregular plurals *[eg children's]*.

- Handwriting is increasingly legible and consistent, including fluent joining.

- Evaluation of the effectiveness of their own and others' writing leads to suggested improvements as to ideas and content.

MET+

- Writing demonstrates a deep understanding of a range of taught text types, with appropriate choices being made independently as to form, audience, purpose and context.
- Writing maintains an appropriate form and cohesion throughout, including writing across the curriculum.

- In narratives detailed description and strong word choices add detail and create atmosphere.
- Independent use of effective paragraphing adds cohesion and aides the reader.

- Non-narratives are structured in a logical way, ensuring cohesion across the piece.
- Well-chosen detail and presentation engages the reader throughout.

- Some playing with grammar, devices and structure beyond their PoS is evident.

- Grammar is accurate reflecting written Standard English.
- Word and phrase choices, including competent use of fronted adverbials, bring the writing to life.
- Writing demonstrates fluent use of common punctuation.

- Spelling is usually accurate demonstrating a deep understanding of a wide range of spelling rules and word families.

- Handwriting is legible and consistent, including fluent joining with increasing speed.

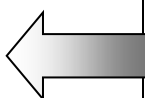- Constructive evaluation is backed by reasons for their suggestions.

ARE SUMMARY	Composition	Grammar & Punctuation	Spelling	Handwriting

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Year 5 Writing

Start	Emerging	MET-	**MET**	MET+	Deep

Independent writing demonstrates understanding of a range text type; maintaining form and shows cohesion. Writing uses progressively varied and rich vocabulary and a range of sentence structures. Structure and organisation of writing is informed by its audience, purpose and context. Ideas are developed, including use of relative clauses. Tenses are appropriate and sustained. Spelling is accurate in line with Y5 Appendix 1. A range of punctuation is used accurately as set out in Appendix 2. Devices are used to build cohesion within paragraphs and across the whole piece, including tense choice. Joined handwriting is legible. Evaluation of the effectiveness of their own and others' writing leads to suggested improvements as to ideas, content and structure.

Emerging (left column):

- Writing demonstrates an understanding of a range of taught text types.
- Writing is appropriate to audience, purpose and context, and shows cohesion.
- Structure and organisation is starting to be informed purpose and context with support.

- In narrative writing settings, characters and plot are created successfully.
- Ideas are linked within paragraphs (e.g. then, after, later)

- With support, non-narrative writing is beginning to use a wider range of further organisational and presentational devices to guide the reader.

- Basic grammar is accurate reflecting written Standard English instead of local spoken forms.
- Writing demonstrates appropriate use of nouns and noun phrases modified by carefully chosen adjectives to add detail and description.
- A range of sentences containing more than one clause is used.
- Some relative clauses are beginning to be used with support (e.g. who, which, where, when). Tense choice is appropriate throughout the piece.

- Punctuation is mostly accurate.
- Some use of possessive apostrophes for plural nouns (e.g. The boys' arrival) is sometimes accurate, but not always secure.

- Spelling in line with Y1-Y4 of Appendix 1 is usually accurate.
- A range of strategies are used to spot possible inaccuracies in their spelling.

- Handwriting is usually legible and fluent, including appropriate choice of letter shape, and whether or not to join letters.

- Writing is self-checked for errors in spelling, grammar and punctuation and meaning.
- With support simple improvements to structure and organisation of others' writing are suggested.

MET (middle column):

- In narrative writing settings, characters and plot are created successfully.
- Paragraphs organise ideas around a theme and adverbials of time and place and link ideas across paragraphs (*e.g. later, nearby*)

- In non-narrative writing a range of further organisational and presentational devices are used to structure text *(e.g. headings, bullet points, underlining)*.
- Ideas are linked across paragraphs.

- Across writing appropriate use of nouns and noun phrases modified by preposition phrases to expand and develop ideas, information and description.
- Pronouns and nouns are chosen to aid cohesion, ensure clarity and avoid repetition.
- Relative clauses successfully add detail and description.
- Adverbs and modal verbs indicate degrees of possibility *(e.g. perhaps, surely, must, could)*.
- Fronted adverbials are used to vary sentence structure.
- Tense choice and other devices build cohesion within and across paragraphs *(e.g. he had seen her before)*.

- The range of punctuation set out in Y5 Appendix 2 is used accurately, including:
  - commas after fronted adverbials;
  - possessive apostrophes for plural nouns;
  - punctuation of direct speech.

- Spelling in line with Y5 Appendix 1 is usually accurate, including further homophones and those which use common pre-fixes and suffixes.
- Writing is proof-read for spelling and punctuation errors, including some prompted use of a dictionary to check spelling.

- Handwriting is legible and fluent, including appropriate choice of letter shape, and whether or not to join letters - however this is not always maintained when writing at efficient speed.

- Evaluation of the effectiveness of own and others' writing is used to propose changes, including structure and organisation.

MET+ (right column):

- The writer independently uses varied and rich vocabulary and a range of sentence structures.
- Structure and organisation of writing is carefully chosen to reflect audience, purpose and context,

- Across a range of genres rich settings, atmosphere, characters and plot are created successfully and consistently.

- In non-narrative writing demonstrates well-chosen devices to present information and guide the reader.

- The writer demonstrsates great awareness of shaping paragraphs.

- Some playing play with grammar, devices and structure beyond their PoS is evident.

- The writer demonstrates carefully chosen vocabulary and phrases (including relative clauses) to clarify meaning, enhance effect, add/slow pace and conjure mood.

- The writer demonstrates fluent and appropriate use of punctuation, including some attempts to create effect.

- Spelling is usually accurate demonstrating a deep understanding of a wide range of spelling rules.
- Any spelling errors are generally self-corrected during proof reading.

- Handwriting is legible, fluent handwriting is usually maintained when writing at efficient speed.

- Constructive evaluation is backed by reasons for their suggestions, including around structure and organisation.

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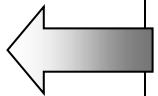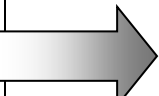
ARE SUMMARY | Composition | Grammar & Punctuation | Spelling | Handwriting

Year 6 / Key Stage 2 Writing

Start	Emerging	MET-	MET	MET+	Deep

Independent writing across a range of purposes and audiences demonstrates selection and use of suitable forms. Writing maintains form and shows cohesion. Writing shows appropriate choices of grammar and vocabulary to clarify and enhance meaning. Structure and organisation of writing is informed by its audience, purpose and context. The writer expands and develops ideas to add depth using a range of strategies. In non-narrative writing a range of devices help guide the reader. Spelling in line with Appendix 1 is accurate and a range of punctuations as outlined in Appendix 2 is mostly accurate. Joined handwriting is legible. Evaluation of the effectiveness of their own and others' writing leads to suggested improvements as to ideas, content and structure.

Emerging

- Witing demonstrates understanding of a range text type. Writing maintains form and shows cohesion.
- Writing uses progressively varied and rich vocabulary and a range of sentence structures.
- Structure and organisation of writing is informed by its audience, purpose and context.
- In narrative writing settings, characters and plot are created successfully.
- Paragraphs organise ideas around a theme and adverbials of time and place and link ideas across paragraphs (e.g. later, nearby)

- In non-narrative writing a range of further organisational and presentational devices are used to structure text (e.g. headings, bullet points, underlining). Ideas are linked across paragraphs.

- Across writing appropriate use of nouns and noun phrases modified by preposition phrases to expand and develop ideas, information and description.
- Pronouns and nouns are chosen to aid cohesion, ensure clarity and avoid repetition.
- Relative clauses successfully add detail and description.
- Adverbs and modal verbs indicate degrees of possibility (e.g. perhaps, surely, must, could).
- Fronted adverbials are used to vary sentence structure.
- Tense choice and other devices build cohesion within and across paragraphs (e.g. he had seen her before).
- A range of punctuation is used accurately, including commas after fronted adverbials, possessive apostrophes for plural nouns, and other punctuation rules to indicate direct speech.

- Spellings set out in Y1-Y5 Appendix 1 are accurate, including common homophones and those which use common pre-fixes and suffixes.
- Writing is proof-read for spelling and punctuation errors, including some prompted use of a dictionary to check spelling.

- Handwriting is legible and fluent, including appropriate choice of letter shape, and whether or not to join letters.
- However this is not always maintained when writing at efficient speed.

- Evaluation of the effectiveness of own and others' writing is used to propose changes, including structure and organisation.

MET-

- In narratives, description of settings, characters and atmosphere is used appropriately, including integration of dialogue to convey character and advance the action.
- Appropriate choice of tense supports whole text cohesion and coherence.

- In non-narratives, a range of organisational and presentational devices, including the use of columns, bullet points and tables, to guide the reader.
- When required, longer passages are précised appropriately.
- Expanded noun phrases are used to convey complicated information concisely.

- Paragraphs develop and expand some ideas, descriptions, themes or events in depth.
- A range of cohesive devices link ideas within and across paragraphs *(including repetition of a word or phrase; grammatical connections, such as adverbials; and ellipsis).*

- Across writing vocabulary and grammatical choices suit both formal and informal situations.
- Relative clauses beginning with *who, which, where, when, whose, that or with* are used to clarify and explain relationships between ideas.
- The perfect form of verbs marks relationships of time and cause.
- Modal verbs and adverbs are used to indicate degrees of possibility.
- Passive verbs are used to affect the presentation of information.

- Common punctuation is used accurately, including:
  - Commas and hyphens to avoid ambiguity;
  - Brackets, dashes or commas to indicate parenthesis;
  - Commas to clarify meaning or avoid ambiguity;
  - Colons to introduce lists and semi-colons to separate items within lists;
  - Consistent punctuation of bullet points is consistent.

- Spelling in line with Y5/6 Appendix 1 is accurate, including most words with silent letters, further homophones and other words often confused.

- Handwriting is legible, fluent handwriting is usually maintained when writing at efficient speed.
- Some choices are made about shape, size and joining to reflect the purpose of the text.

- Effectiveness of own and others' writing is evaluated and edited to make appropriate changes including use of tense, subject/verb agreement and register, to enhance effect and clarify meaning.

MET+

- Indpendent writing for a range of purposes and audiences is manipulated and controlled to achieve the intended effect.
- Judicious choices of grammar and vocabulary manipulate meaning for the intended effect.
- Structure and organisation of writing is informed by its audience, purpose and context.

- The writer demonstrates precise vocabulary and grammatical choices, including the deliberate use of the passive voice to affect the presentation of information in both formal and informal situations.

- Writing shows conscious control of paragraphs, deliberately shaped, to present, withhold, expand, emphasise or develop material to achieve the intended effect.
- Overall cohesion is demonstrated through the deliberate manipulation of a range of well-chosen devices for effect.

- Clauses are manipulated to emphasise relationships between complex ideas or to convey information succinctly.
- Subjunctive mood is used where appropriate, to suit both formal and informal situations.

- A range of punctuation is used, accurately and appropriately, including semi-colons, colons and dashes to mark the boundary between independent clauses.
- Punctuation is used for clarity and emphasis, with only occasional errors in more ambitious constructions.

- All aspects of writing transcription: spelling at the above national standard are embedded.

- Legible, fluent handwriting is consistently maintained when writing at sustained, efficient pace.

- Effectiveness of own and others' writing is evaluated and edited to make judicious changes to vocabulary, grammar and punctuation to enhance effects and clarify meaning.

ARE SUMMARY   Composition   Grammar & Punctuation   Spelling   Handwriting

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Year 1 Reading

Start	Emerging	MET-	MET	MET+	Deep

Using age related texts they accurately apply their taught phonic knowledge to decode age appropriate texts accurately, including the blending of sounds for unfamiliar words, They accurately read the common exception words as set out in Y1 Appendix 1, taught suffixes and contractions when reading books. The reader sees reading as a pleasurable activity; enjoying reading books aloud and reciting learned poems individually or with others. They can retell a range of familiar stories and can discuss key ideas from a recent text. They can sequence events in a story so far and make simple predictions.

Emerging

- Reads and understands simple sentences.

- Uses taught phonic knowledge to decode regular words and read them aloud.
- Accurately reads some of the common exception words set out in Appendix 1.
- Accurately reads words containing taught GPCs and–ing, –ed endings

- Needs prompting when what they have just read did not make sense.

- Can re-tell familiar stories with support.
- Joins in with familiar rhymes and poems.
- With support demonstrates a simple understanding about what they have read when talking with others.

- Knows that some books tell stories and others give information.

MET-

- Fluently reads graphemes (letters or groups of letters) for all 40+ phonemes, including, where applicable, alternative sounds for graphemes.
- Reads accurately by blending sounds in unfamiliar words containing GPCs that have been taught.
- Accurately reads common exception words as set out in Appendix 1
- Accurately reads words containing taught GPCs and –s, –es, –ing, –ed, –er and –est endings
- Reads words of more than one syllable that contain taught GPCs.
- Reads words with contractions [for example, I'm, I'll, we'll], and understand that the apostrophe represents omitted letters.

- Reading is seen as a pleasurable activity.
- Checks that the text makes sense to them as they read and corrects inaccurate reading (of words).

- Makes simple links between what they read or heard to their own experiences.
- Can retell key stories, fairy stories and traditional tales.
- Recognises and joins in with predictable phrases.
- Can recite some rhymes and poems by heart.
- Can discuss the significance of the title and events.
- Makes simple inferences on the basis of what is being said and done.
- Can predict what might happen on the basis of what has been read so far.
- Participates in discussion about what is read to them, taking turns and listening to what others say.
- Can explain clearly their understanding of what has been read to them.

MET+

- Confidently reads aloud more complex texts, including those beyond their chronological age.

- Reads a range of words with more than one syllable, making confident attempts where beyond taught GPCs.
- Fleuntly reads common exception words such as smiling, runner etc. in context
- Tests out alternative graphemes for phonemes when reading unfamiliar words.

- Can discuss preferences about a range of stories they have read or have been read to them (e.g. likes/dislikes about a genre).
- Knows when what they have just read does not makes sense - leading to automatic re-reading of sentences for correction.
- Reads signs and labels beyond the classroom.
- Can talk about favourite authors, poems or genres.

- Makes links with the text and something they have experienced themselves without prompting.
- Can *outline* a familiar story using key points.
- Deduces possible meanings to unknown words drawing on the wider sentence or context.

- Demonstrates a growing awareness of how to use non-fiction books to find information.

- Predicts what a book may be about based on the front cover.
- Predicts what might happen next, giving reasons for their thinking.
- Is beginning use a range cues to support their simple inferences and deductions (eg pictoral, context).

ARE SUMMARY   Word Reading   Comprehension

A Joint Project Between…   BRIGHTON & HOVE   Reading BOROUGH COUNCIL

Year 2 / End of KS1 Reading

Start	Emerging	MET-	MET	MET+	Deep

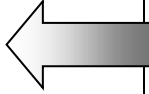Using age related texts they read familiar words quickly and accurately, without overt sounding and blending. They accurately read the common exception words as set out in Y1/2 Appendix 1 when reading books, including taught suffixes and contractions. The reader enjoys reading books aloud and reciting learned poems, using some intonation. They can retell a range of familiar stories and can discuss key ideas from a recent text. They can sequence events in a story so far and make predictions. They can answer questions about what they have just read and make simple inferences. They understand that non-fiction books are structured in different ways.

Emerging

- Applies phonic knowledge and skills when tackling unfamiliar words to decode age appropriate texts accurately.
- Accurately reads words with s, -es, -ing, -ed, -er and –est endings and those with contractions.
- Can read some of the common exception words set out in Appendix 1.

- Reading is seen as a pleasurable activity.
- Checks that the text makes sense whilst reading, applying phonic knowledge to correct inaccuracies.
- Mirrors modelled intonation when reading with someone else.

- Demonstrates understanding of poetry, stories, and non-fiction and can discuss key characters.

- Recognises sequences of events in simple texts.
- With support can retell a range of stories, fairy stories and traditional tales.
- Uses recurring phrases when recalling stories or poems.

- With support can make simple comparisons between the structure of different non-fiction books.

- Answers simple questions based on the story so far.
- With support can make simple predictions on what might happen next
- With support can make simple inferences based on is being said or done.

MET-

- Reads accurately by blending the sounds in words that contain the graphemes taught so far, especially recognising alternative sounds for graphemes.
- Reads accurately words of two or more syllables that contain the same graphemes as above.
- Accurately reads words containing common suffixes and contractions as set out in Y1/2 Appendix 1.
- Accurately reads further common exception words as set out in Y1/2 Appendix 1
- Reads familiar words quickly and accurately, without overt sounding and blending.
- Accurately reads aloud books closely matched to their improving phonic knowledge, sounding out unfamiliar words accurately, automatically and without undue hesitation.

- Reading is seen as a pleasurable activity.
- Checks that the text makes sense to them as they read, correcting inaccurate reading.

- Can discuss the sequence of events in books and how items of information are related.
- Can retell a wider range of stories, fairy stories and traditional tales and recite some poetry by heart, with appropriate intonation to make the meaning clear.
- Understands that non-fiction books are structured in different ways.
- Recognises simple recurring literary language in stories and poetry.
- Can discuss their favourite words and phrases.
- Can make inferences on the basis of what is being said and done.
- Can answer and ask questions about the text they have just read.
- Can predict what might happen on the basis of what has been read so far.

- Participates in discussion about books, poems and other works that are read to them and those that they can read for themselves, taking turns and listening to what others say.
- Explains and discusses their understanding of books, poems and other material, both those that they listen to and those that they read for themselves.

MET+

- Automatic decoding is established and a range of texts can be read with consistent accuracy, fluency and confidence, including those beyond their chronological age.

- Books are selected by the reader in order to challenge knowledge and word reading skills or to pursue an interest in an author, genre or topic.

- Demonstrates an understanding of more challenging texts through discussion and questioning.
- Explains why their inferences and predictions are plausibles.

- New words are understood through the exploration of their meaning in context, and by making links to known vocabulary.

- Can identify key aspects of fiction and non-fiction.
- Can give simple explanations of how and why texts are structured according to their purpose.

ARE SUMMARY   Word Reading   Comprehension

A Joint Project Between…   Brighton & Hove   Reading BOROUGH COUNCIL

Year 3 Reading

Start	Emerging	MET-	MET	MET+	Deep

They read age related texts accurately and at a speed that is sufficient for them to focus on understanding rather than decoding individual words. They can read the further exception words set out in Y3 Appendix 1 and attempt to decode unfamiliar words. They can use a dictionary to check the meaning of unfamiliar words. Reading is seen as a pleasurable activity and they can demonstrate experience of a growing range of text types. They can retell known stories and perform poetry and play-scripts with some feeling. They understand what they have read and can make predictions and draw simple inferences. They are beginning to identify common themes across stories and spot common conventions used in different text types. They can retrieve information from non-fiction books.

Emerging

- Generally reads age appropriate texts (Y2/3) fluently, using phonic knowledge and skills consistently to decode quickly and accurately.
- Attempts longer unknown words.

- Self-corrects where the sense of the text is lost.
- Is beginning to use appropriate intonation when reading aloud.

- Demonstrates knowledge of a developing range of poetry, stories and non-fiction.
- Can identify key aspects of a text read and plays an active role when discussing texts.
- Shares favourite words and phrases.

- Discusses sequences of events in narratives and how information in a non-narrative text relates to one another.
- Recognises simple recurring literary language in stories and poetry.

- Recognises and understands the different structures of non-fiction books that have been introduced.
- With support can use a contents page.

- Asks and answers questions appropriately, including simple inference based on what is said and done.
- Can make predictions about what may happen next and at the end of the story based on what has been read so far.

MET-

- Generally reads fluently, decoding most new words outside everyday spoken vocabulary.
- Can read longer words with support and tests out different pronunciations.
- Can read the further exception words for Y3 as set out in Appendix 1.
- Can use a dictionary to check the meaning of words they have read.

- Reading is seen as a pleasurable activity.
- Reads accurately and at a speed that is sufficient to focus on understanding rather than decoding individual words.

- Can demonstrate experience of a wide range of fiction, poetry, plays, non-fiction and reference books or textbooks.
- Can retell a wider range of stories, fairy stories and traditional tales.
- Performs poetry and plays with appropriate intonation to make the meaning clear.

- Identifies common structures across similar text types (eg letters, newspapers)
- Recognises simple themes such as the triumph of good over evil or the use of magical devices in fairy stories and folk tales.

- Retrieves and records information from non-fiction, using contents pages to locate information.

- Predict what might happen from details stated and implied.
- Draws simple inferences such as inferring characters' feelings.

MET+

- Reads with fluency more challenging texts (including those beyond their chronological age), selecting strategies to decode new words. Is beginning to clarify meaning of words through contextual cues.

- Reads independently both aloud and silently.
- When reading aloud there is some awareness of the audience (e.g. changes in dynamics, pace, voices).

- Demonstrates experience of a broader range of genres, authors and texts from different periods in time.
- Has developed preferences within a wider range of texts, genres and writers and can justify their preferences.

- Uses appropriate terminology when discussing texts (e.g. plot, character, setting).
- Can compare and contrast across texts, justifying identified similarities and differences.

- Shows an awareness of other organisational devices that will help to locate and retrieve information from non-fiction.

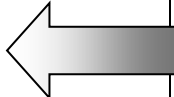- Justifies inferences and deductions with evidence from the text.

ARE SUMMARY   Word Reading   Comprehension

A Joint Project Between...   Brighton & Hove   Reading BOROUGH COUNCIL

Year 4 Reading

Start	Emerging	MET-	**MET**	MET+	Deep

They read most words in age related texts effortlessly including further exception words set out in Y3/4 Appendix 1. They attempt to decode unfamiliar words with increasing automaticity. They can demonstrate experience of range of books and other texts; having read for a range of purposes. They can retell known stories and perform poetry and play-scripts with some feeling. They understand what they are reading, often asking questions to clarify wider concepts. They make sensible predictions and justify inferences with evidence from the text. They can identify common themes across stories and link common conventions with certain text types They can efficiently retrieve and record information from information texts and non-fiction books.

Emerging

- **Generally reads most age appropriate texts (Y3/4) fluently, decoding most new words outside everyday spoken vocabulary.**
- **Can read all Y3 and some Y4 further exception words set out in Appendix 1.**

- **Reads accurately and at a speed that is sufficient for them to focus on understanding what they read rather than on decoding individual words.**
- **Reads with appropriate intonation.**
- **Re-reads passages to ensure understanding.**

- **Reads and re-reads a variety of texts, but sticks closely to known text types or authors.**

- **Recognises simple themes across unfamiliar stories such journeys, good vs. evil.**
- **Identifies text types using their conventions (e.g. Headlines in newspapers, address in letters, headings in reports).**

- **Retrieves and records information from non-fiction, using contents pages to locate information.**

- **With support, talks about key phrases an author has used to deepen description.**

- **Predict what might happen from details stated and implied.**
- **Draws simple inferences such as inferring characters' feelings.**

- **Knows the job of an index page, but need support to use it effectively.**

MET-

- **Applies their growing knowledge of root words, prefixes and suffixes as listed in Y3/4 Appendix 1, both to read aloud and to understand the meaning of new words they meet**
- **Accurately reads the further exception words for Y3/Y4 as set out in Appendix 1, noting the unusual correspondences between spelling and sound, and where these occur in the word.**

- **Sees reading as a pleasurable activity, reading books that are structured in different ways and reading for a range of purposes**
- **Can use a dictionary to check the meaning of words that they have read**
- **Can demonstrate experience of a wide range of range of books, including fairy stories, myths and legends, and can retell some of these orally**
- **Can identify common conventions used in a range of texts (eg greeting in letters, that diaries are written in the first person or the use of numbering and headings in instructions).**
- **Performs poems and play scripts showing understanding through intonation, tone, volume and action**
- **Discusses words and phrases that capture their interest and imagination**
- **Recognises some different forms of poetry [for example, free verse, narrative poetry]**

- **Understands what they read, in books they can read independently**
- **Checks that the text makes sense to them, discussing their understanding and explaining the meaning of words in context**
- **Asks questions to improve their understanding of a text**
- **Draws inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence**
- **Can predict what might happen from details stated and implied**
- **Can identify the main ideas drawn from more than one paragraph and summarise these**
- **Can identify how language, structure, and presentation contribute to meaning**
- **Can retrieve and record information from non-fiction**

- **Participates in discussion about both books that are read to them and those they can read for themselves, taking turns and listening to what others say.**

MET+

- **Reads a wider range of challenging texts that are above chronological age with fluency and understanding.**

- **Reads silently with increasing stamina and appraises the text.**
- **Shows a more sophisticated awareness of the audience when reading out loud or peforming poetry or plays.**

- **Discusses different writers, referring to their style of writing and themes; deepening their understanding of their culture and wider background.**

- **Compares and contrasts a range of writing conventions commenting on their purpose and audience.**
- **Can comment on the effectiveness of the author's choice of language.**
- **Explains the reasoning of organisational devices, including glossaries.**

- **Recognises and recalls key landmarks within a story.**
- **Use inference and deduction to identify the characteristics of more than one character in the story and to comment on the relationship between them.**
- **Is beginning to read between the lines.**

- **Retrieves information with increasing accuracy and speed, recording evidence through paraphrasing.**

ARE SUMMARY   Word Reading   Comprehension

A Joint Project Between…

Brighton & Hove   Reading BOROUGH COUNCIL

Year 5 Reading

Start	Emerging	MET-	**MET**	MET+	Deep

They read age related texts confidently and independently, using their knowledge of the root words, prefixes and suffixes, including those set out in Y5 Appendix 1, to work out unknown words. They can demonstrate experience of range of books and other texts; having read for a range of purposes. They can recommend books giving reasons for their choices. They perform poetry and plays with a clear sense of the audience. They understand what they are reading, often asking questions to clarify wider concepts. They recognise key themes within a texts and can make comparisons across texts. They make sensible predictions and justify inferences with evidence from the text. They can distinguish between fact and opinion. They can efficiently retrieve and record information from information texts and non-fiction books. They use some technical terms when discussing and evaluating what they have read.

Emerging / Start column:

- Generally reads most age appropriate texts (Y4/5) fluently, decoding most new words outside everyday spoken vocabulary.
- Can read all Y4 and some Y5 further exception words set out in Appendix 1.
- Use dictionaries to check the meaning of words they have read.

- Reads silently and discusses what they have read. Reads aloud with appropriate intonation.
- Checks that the text makes sense, questioning understanding with unfamiliar words or phrases.

- Is choosing a wider range of texts and books including authors that they may not have previously chosen.

- Recognises and explains structural conventions of common text types (e.g. Headlines in newspapers, address in letters, headings in reports).

- Knows the difference between simile and metaphor and can spot the two in writing.

- Retrieves and records information from non-fiction using contents and index pages.

- Discusses language used in a variety of texts and explains how the writer has used these to enhance meaning.

- Summarises stories in their own words.
- Draws inferences such as feelings, thoughts and motives from their actions and justifies with evidence.

MET- / MET column:

- Reads fluently, confidently and independently using strategies to work out any unfamiliar word and applying a growing knowledge of root words, prefixes and suffixes set out in Y5 Appendix 1.

- They have a positive attitude towards reading for a range of purposes
- Evidence shows experience of a wide range of fiction, poetry, plays, non-fiction and reference books or textbooks
- Can demonstrate familiarity with a wide range of books, including myths, legends and traditional stories, modern fiction, fiction from our literary heritage, and books from other cultures and traditions
- Recommends books that they have read to their peers, giving reasons for their choices
- Identifies and discusses re-occurring themes across books
- Understands the conventions of different types of writing such as the use of the first person in writing diaries and autobiographies.
- Performs poems and plays, showing understanding through intonation, tone and volume so that the meaning is clear to an audience

- Checks that the book makes sense to them, discussing their understanding and exploring the meaning of words in context
- Asks questions to improve their understanding
- Draws inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence
- Can predict what might happen from details stated and implied
- Uses some technical terms such as metaphor, simile, analogy, imagery, style and effect when discussing texts.
- Recognises themes within texts (e.g. loss or heroism); and can compare characters, settings, themes and other aspects within texts.
- Summarises the main ideas drawn from more than one paragraph, identifying key details that support the main idea.
- Can distinguish between statements of fact and opinion
- In using non-fiction, accurately retrieves from non-fiction using contents pages and indexes, records and can summarise information found.

- Participate in discussions, explaining their understanding of what they have read using notes where necessary.
- Provides reasoned justifications for their views.

MET+ column:

- Reads a wider range of challenging texts that are above chronological age with fluency and understanding.
- Shows a deeper understanding of morphology and etymology.

- Shows awareness of the audience when reading out loud, using a range of devices for effect.
- Recommends texts based on personal choice, giving reasons for these choices.

- Actively engages with a wide variety of genres.
- Can identify the characteristics of text types and differences between genres, providing examples from their wider reading experiences.

- Evaluates the use of figurative language and explain how it has created an effect and impact on the reader.

- Navigates and efficiently retrieves a variety of information from a range of fiction and non-fiction sources.

- Shows empathy towards a character and justifies reasons for their actions or opinions.

- Makes notes when analysing texts, including précising paragraphs.
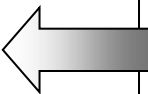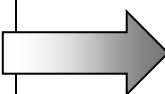
ARE SUMMARY   Word Reading   Comprehension

A Joint Project Between…

BRIGHTON & HOVE   Reading BOROUGH COUNCIL

Year 6 / End of KS2 Reading

Start	Emerging	MET-	**MET**	MET+	Deep

They read age related texts fluently and effortlessly, determining the meaning of new words by applying knowledge of the root words, prefixes and suffixes, including those set out in Y5/6 Appendix 1. They can demonstrate experience of range of books and other texts; having read for a range of purposes. They can recommend books giving reasons for their choices. They perform poetry and plays with a clear sense of the audience. They understand what they are reading, often asking questions to clarify wider concepts. They make sensible predictions and justify inferences with evidence from the text. They can make comparisons across texts and summarise across paragraphs. They can distinguish between fact and opinion. They can efficiently retrieve and record information from information texts and non-fiction books. They can evaluate the effectiveness of language, structure and other devices in relation to the text's purpose.

Emerging:

- Generally reads most age appropriate texts (Y5/6) fluently, using strategies to work out any unfamiliar word and applying a growing knowledge of root words, prefixes and suffixes decoding most new words outside everyday spoken vocabulary.
- Can read all Y5 and some Y6 further exception words set out in Appendix 1.

- Sees reading as a pleasurable activity.
- Demonstrates appropriate intonation, tone and volume when reading aloud text, plays and reciting poetry.

- Demonstrates an increasing familiarity with a wide range of books and texts.
- Recommends books to others based on own reading preferences.

- Associates certain conventions and certain text types including language and structure.
- Uses technical terms such as metaphor, simile, analogy, imagery, style and effect when discussing texts.
- Knows what is meant by 'figurative language'.

- Recognises themes across texts (e.g. loss or heroism); and can compare characters, settings, themes and other aspects within texts.

- Knows the difference between fact and opinion and with support can spot examples in a given text.
- In using non-fiction, efficiently retrieves information and makes notes.

- Summarises main ideas drawn from across given texts.

- Draws inferences and makes predictions based on details which are stated and implied – giving evidence as to their thinking.

MET-:

- Fluently applies their growing knowledge of root words, prefixes and suffixes as listed in Y5/6 Appendix 1, both to read aloud and to understand the meaning of new words that they meet.

- They have a positive attitude towards reading for a range of purposes
- Evidence shows experience of a wide range of fiction, poetry, plays, non-fiction and reference books or textbooks
- Can demonstrate familiarity with a wide range of books, including myths, legends and traditional stories, modern fiction, fiction from our literary heritage, and books from other cultures and traditions
- Recommends books that they have read to their peers, giving reasons for their choices
- Identifies and discusses themes and conventions in and across a wide range of writing
- Makes comparisons within and across books
- Performs poems and plays, showing understanding through intonation, tone and volume so that the meaning is clear to an audience

- Checks that the book makes sense to them, discussing their understanding and exploring the meaning of words in context
- Asks questions to improve their understanding
- Draws inferences such as inferring characters' feelings, thoughts and motives from their actions, and justifying inferences with evidence
- Can predict what might happen from details stated and implied
- Can summarise the main ideas drawn from more than one paragraph, identifying key details that support the main ideas
- Can identify how language, structure and presentation contribute to meaning
- Can evaluate how authors use language, including figurative language, considering the impact on the reader
- Can distinguish between statements of fact and opinion
- Efficiently retrieves, records and presents information from non-fiction

- Participate in discussions, building on their own and others' ideas and challenging views courteously
- Explains and discusses their understanding of what they have read, including through formal presentations and debates, maintaining a focus on the topic and using notes where necessary
- Provides reasoned justifications for their views.

MET+:

- Fluently reads a wider range of challenging texts that are above chronological age with fluency and understanding.

- Confidently performs given texts, including poems, using a wide range of devices to engage the audience and for effect.

- Recommends authors, sets of books and genres to others based on own reading experience and preferences, giving reasons for choice.

- Compares language, structure and presentation across texts and debates which is the most effective.
- Critiques the use of figurative language, including how it is used for effect.
- Can challenge key ideas within a text.

- Reads extended texts, including novels, examining how characters change and develop.
- Draws inferences based on indirect clues and can justify their thinking.

- Can give counter-arguments to an alternative viewpoint, based on evidence from the text.

- Analyses texts and draws out key information to support their own research.
- Can summarise the main ideas of text in a nut shell.

- Compares and contrasts across a broad range of texts, drawing on evidence from the text.
- Can categorise texts according to given criterion, including key themes and conventions.

ARE SUMMARY   Word Reading   Comprehension

A Joint Project Between…

Brighton & Hove   Reading BOROUGH COUNCIL

Y1 Mathematics

Start	Emerging	MET-	**MET**	MET+	Deep

Fluently counts, reads and writes numbers up to 100 and can identify 1 more or less from any given number. Can count in multiples of 2, 5 and 10 and knows number bonds up to 20. Can create simple number sentences and solve one-step problems using equipment, including missing number problems. Can find ¼ and ½ of shape or quantity. Can compare lengths, mass and volumes and recognises the denominations of coins and notes. Can tell the time to the nearest hour and half hour. Can identify common 2-D and 3-D shapes. With support, is beginning to explain their methods when problem solving.

Start / Emerging

- Count up to 100 in 1s beginning with 0 or 1
- Read numbers up to 100 in numerals.
- Count up in 2s, 5s and 10s from 0.
- Identify one more and one less than any number up to 20.
- Begin to estimate a sets of objects up 20 and use the language of more than, less than to compare with another number.
- Read numbers up to 20 in numerals and words

- Recognise the function of the – and + symbols.
- Recall number bonds up to 10 and use these in a range of real life contexts and role play.
- Add and subtract single digit numbers in a range of real life situations and role play using concrete objects.

- Double numbers up to 10 using objects, recognising that you add the same number twice.
- Share up to 10 objects between 2 and 4 groups.
- Use sharing and doubling in a range of real life and role play contexts.

- Know that half is dividing into two equal parts and that you can find half of a quantity by sharing into 2 groups.
- Know that a quarter is dividing into four equal parts and know that you can find quarters of a quantity by sharing into 4 groups.

MET- / MET

- Count to and across 100, forwards and backwards, beginning from 0 or 1, or from any given number.
- Count, read and write numbers to 100 in numerals with correct orientation.
- Count in multiples of twos, fives and tens (up and back).
- Given a number, identify one more and one less up to 100.
- Identify and represent numbers using objects.
- Identify and represent numbers using pictorial representations including the number line.
- Use the language of: equal to, more than, less than (fewer), most, least.
- Read and write numbers from 1 to 20 in numerals and words and spelling them correctly.

- 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.
- Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ☐ – 9.

- Solve one-step problems involving multiplication *(by 2 and 5)* and division *(by 2 and 4)* using concrete objects
- Solve one-step problems involving multiplication *(by 2 and 5)* and division *(by 2 and 4)* using pictorial representations and arrays with the support of the teacher.

- Recognise, find and name a half as one of two equal parts of an object or shape.
- Recognise, find and name a half of a quantity.
- Recognise, find and name a quarter as one of four equal parts of an object, shape.
  Recognise, find and name a quarter of a quantity.

MET+ / Deep

- Use numerals to explain why counting across 100 is tricky.
- Identify multiples of 2s, 5s and 10s in a set of numbers and explain how they know.
- Identify 2 and 5 more/ less than a given number mentally and explain their approach.
- Reason about how estimating can help when problem solving.
- Justify their ordering of numbers up to 100 on an empty number line.

- Compose oral maths stories and role-play around given number sentences.
- Know that re-ordering numbers in a number sentence 'may' affect the answer.
- Explain links between addition and subtraction facts up to 20.
- Use empty number lines to solve addition and subtraction calculations.
- Create their own missing number problems, explain how they tested that their solution is correct.
- Explain their solutions to addition and subtraction problems which involve two 2-digit numbers up to 20 , but where the answer is over 20 (e.g. 12+17)

- Predict when a number will not share equally by 2 and explain how they know.
- Explain the relationship between arrays and multiplication.
- Solve problems involving multiplication and division using repeated addition or subtraction.

- Explain why some shapes are difficult to halve or quarter.
- Predict which quantities cannot be halved or quartered equally and explain their reasoning

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ARE SUMMARY	Number	Calculation	Fractions	Measures	Geometry	Statistics

A Joint Project Between...
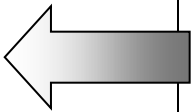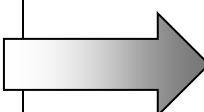
• Make direct comparisons between lengths/heights, (longer/shorter, taller/shorter) mass/weight (heavier, lighter), capacity/volume (full/empty, more full, less full) and time (earlier, later). • Recognise a variety of different coins and notes. • Use simple language to describe the chronology of events (e.g. today, yesterday, tomorrow, tonight, last night, this morning). • Know the days of the week, months of the year. • Know that a clock 'measures' time. • Handle and talk about the different common 2-D and 3-D shapes. • Use the language of left, right, top, middle and bottom to talk about position, direction and movement.	• Measure and begin to record lengths and heights, mass/weight, capacity/volume (non-standard measures) and time (hours, minutes, seconds). • Compare, describe and solve practical problems across a range of measures including lengths and heights, mass/weight, capacity and volume. • Recognise and know the value of different denominations of coins and notes. • Sequence events in chronological order using language (e.g., before and after, next, first). • Use language relating to dates, including days of the week, weeks (e.g. fortnight, weekend) months and years when talking about events. • Tell the time to the hour and half past the hour. • Recognise and name common 2-D and 3-D shapes, including rectangles (oblongs and squares), circles and triangles and cuboids (including cubes), pyramids and spheres. • Describe position, direction and movement, including whole, half, quarter and three-quarter turns.	• Explain why it is important to use the same units of measure when comparing lengths etc. • Explain the methods used to solve practical problems across a range of methods. • Order the denominations of coins and notes and explain their thinking. • Make comparisons between different passages of time e.g. a week being 7 days; a school week is 5 days; 2 days in a weekend • Sort and compare 2-D and 3-D shapes, explaining your reasoning. • Create and record simple sequences of movement including changes in direction and turns. • Explain how many half and quarter turns is the same as a full turn.

Y2 / End of KS1 Mathematics

Start	Emerging	MET-	**MET**	MET+	Deep

Fluently uses 2 digit numbers in a range of contexts, including addition and subtraction problems. Knows the 2, 3, 5 and 10 multiplication tables and number bonds up to 20 and uses these to solve problems in context. Can find 1/3, ¼, 1/2 and ¾ of a shape or quantity and knows that 2/4 is the same as ½. Knows which metric units to use for length, mass, capacity and temperature. Can make given amounts using different combinations of coins and work out change. Can tell the time to the nearest 5 minutes. Uses their knowledge of symmetry when describing properties of 2D shapes and uses correct mathematical vocabulary to describe and compare 3D shapes. Can accurately interpret pictograms, block graphs and simple tables to solve problems. Is beginning to explain their methods when problem solving.

Start column:
- Count up in 2s, 3s, 5s and 10s from 0.
- Know how to partition 2-digit numbers.
- Accurately estimate sets of objects up to 50.
- Order numbers up to 100. Know that the = sign means 'the same as'.
- Read numbers up to 100 in numerals and words.

- Recall number bonds up to 20 and use these in a range of real life contexts and role play.
- Add and subtract 2-digit numbers and ones to solve problems.
- Beginning to use commutativity to solve addition calculations (e.g. start with the bigger number first).
- Recognise when an answer is sensible or not (e.g. 73+4=57).
- Solve calculations using the same numbers (eg x+y & y+x or x+y and x-y) and spot that some give the same answer.

- Use multiplication facts relating to 2s, 5s and 10s in a range of contexts and role play, relying on concrete objects.
- Know that some numbers are classed as odd and some even.
- Recognise the x and ÷ signs.
- Know that grouping can help with multiplication and division.
- Solve pairs of calculations using the same numbers and spot that some give the same answer.
- Solve simple x and ÷ problems using grouping or repeated addition/ subtraction in a range of contexts.

- Count up and down in ½ s, ¼ s and 1/3 s to make 1.
- Recognise that thirds arise by dividing into 3 equal parts.
- Correctly place ¼, ½ and ¾ in order.
- Find ½ and ¼ of given lengths.
- Find ¾ of a quantity.

MET column:
- Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward
- Recognise the place value of each digit in a 2-digit number.
- Identify, represent and estimate numbers using different representations, including the number line.
- Compare and order numbers to at least 100 and use the <> and = sign.
- Read and write numbers to at least 100 in numerals and in words.
- Use place value and number facts to solve problems.

- Solve problems with addition and subtraction using concrete objects and pictorial representations including those involving numbers, quantities and measures and applying their increasing knowledge of mental and written methods (not necessarily column)
- Recall and use addition and subtraction facts up to 20 fluently and derive and use related facts up to 100.
- 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
- Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.
- Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.

- Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even
- Calculate mathematical statements for multiplication and division within the taught multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs.
- Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.
- Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division fact, including problems in contexts.

- Recognise, find, name and write fractions 1/3, ¼, 2/4 and 3/4 of a length, shape, set of objects or quantity.
- Write simple fractions for example, ½ of 6=3. Recognise the equivalence of 2/4 and ½.

MET+ column:
- Categorise numbers in a set as multiples of 2s, 3s, 5s and 10s and explain why some sit in more than one category.
- Explain how a set of objects can be represented in different ways, but the tota number remains the same.
- Compare and contrast a set of 2-digit numbers, reasoning about similarities and differences.
- Explain why = means 'balance'.
- Explain how estimating can help when solving problems with larger numbers.

- Make some choices between mental and written methods.
- Use columnar (expanded) addition and subtraction appropriately and accurately in a range of real life contexts and role play.
- Explain patterns in number facts to 100 and how they can help us solve other calculations.
- Explain how partitioning numbers helps when adding and subtracting.
- Explain the links between related addition and subtraction calculations (e.g. 5+6=11 so 11-6=5).
- Use practical resources to teach another pupil about the commutativity of addition.
- Rearrange the order in a missing number problem (e.g. 7+___=10 and 10=7+ ___)

- Explain links between other multiples based on 2s, 5s, 10s (e.g. 100s and 50s).
- Justify why a statement may incorrectly written using their knowledge of multiplication and division.
- Use practical resources to explain why multiplication is commutative and division is not.
- Evaluate their approach to a multiplication or division problem and conclude whether it was efficient or not suggesting improvements.

- Use the terms numerator and denominator independently when talking about fractions.
- Order 1/3, ½ , ¼ and ¾ on an empty number line and justify their position.
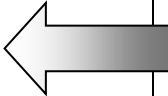- Based on their understanding of halves and quarters, begin to generalise about other equivalent fractions.

ARE SUMMARY Number Calculation Fractions Measures Geometry Statistics

A Joint Project Between…

BRIGHTON & HOVE   Reading BOROUGH COUNCIL

• **Know and name the standard units of length/height (m/cm); mass (kg/g); temperature (ºC) and capacity (l/ml).**	• **Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels.**	• **Justify their thinking when comparing and ordering measures, including linking to fractions (e.g., this is half the length of that).**
• **Identify the correct equipment for a given measuring task or role play situation (e.g. ruler for length vs thermometer for temperature).**	• **Compare and order lengths, mass, volume/capacity and record the results using >, < and =**	• **Calculate differences between different measures where the unit is the same.**
• **With support measure using cm/m, litres and kgs where the answer is a whole.**	• **Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value.**	• **Explain relationships between rising denominations and the reducing number of coins needed to make the same amount (e.g. 4 x 2p vs 8 x 1p or 10 x 2p vs 4 x 5p)**
• **Becoming fluent in counting using coins, including counting in 2s, 5s and 10s.**	• **Find different combinations of coins that equal the same amounts of money.**	• **Justify why some amounts cannot be made with certain coins (e.g. 17p using 10ps and 5ps).**
• **Add together small numbers of coins and record the calculation using the (p) pence symbol (e.g. 5p+2p+1p=).**	• **Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.**	• **Explain how a money problem has been solved, using the appropriate vocabulary.**
• **Use addition of coins in practical role play situations and to solve problems.**	• **Compare and sequence intervals of time.**	• **Calculate differences between events that are on the hour and half past the hour (e.g. 8.30 and 10.00 = 1 and ½ hours).**
• **Use the correct interval of time when discussing events (e.g. minute, second, hour, day, week, and year).**	• **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.**	• **Explain the relationship between 5s, 15s and 30s within time, linking with ¼ past, ½ past and ¼ to).**
• **Read the time to quarter past/quarter to the hour.**	• **Pupils read and write names for shapes that are appropriate for their word reading and spelling.**	
• **Link shapes with written name labels.**	• **Pupils draw lines and shapes using a straight edge .Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line.**	• **Compare and contrast across a range of 2-D and 3-D shapes using technical mathematical language to describe similarities and differences.**
• **Explain the difference between 2-D and 3-D using shapes to support their thinking.**	• **Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces.**	• **Sort and re-sort shapes according to different criteria and explain why some shapes moved groups while others stayed together.**
• **With support describe simple properties of 2-D and 3-D shapes, (e.g. faces, edges, sides using word prompts).**	• **Identify 2-D shapes on the surface of 3-D shapes [e.g., a circle on a cylinder and a triangle on a pyramid].**	
• **Complete given patterns and sequences.**	• **Compare and sort common 2-D and 3-D shapes and everyday objects.**	• **Justify their thinking when solving and creating sequence puzzles.**
• **Spot patterns and sequences in the real world.**	• **Order and arrange combinations of mathematical objects in patterns and sequences.**	• **Generalise about patterns, explaining how they know what the nth term in a pattern will be (e.g. Using the first 5 shown I know the 10th will be…. because….)**
• **Know that rotation means turn and begin to use clockwise and anti-clockwise to describe turns.**	• **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)**	• **Solve and create maze puzzles involving quarter, half and three-quarter turns.**
• **Know that data means information and know that it can be presented in different forms.**	• **Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.**	• **Rationalise their choices as to recording and presenting data (e.g. why a pictogram was more effective than presenting the data in a table).**
• **Use tallies to record data and interpret information presented in tally charts and pictograms.**	• **Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.**	• **Explain how more than one symbol in a pictogram can represent a value greater than than 1.**
	• **Ask and answer questions about totalling and comparing categorical data.**	• **Explain their method when solving problems involving categorical data.**

Y3 Mathematics

Start	Emerging	MET-	**MET**	MET+	Deep

Fluently uses 3 digit numbers in a range of contexts, including addition and subtraction problems. Knows the 2, 3, 4, 5, 8 and 10 multiplication tables uses these to solve problems in context. Fluently uses the formal written methods of addition and subtraction and can multiply TU X U mentally or using informal methods. Can compare and order fractions and add and subtract fractions with the same denominator within a whole. Accurately measures length, mass and volume using standard metric units and can measure the perimeter of 2-d shapes. Uses their knowledge of right angles, parallel and perpendicular lines when describing properties of shape. Can accurately interpret scaled bar charts, pictograms and tables in order to solve problems. Can explain their methods and give simple reasons for their thinking.

Start / Emerging column:

- Count up in 4s, 10s, 50s, 100s from 0.
- Find 10 more and less than any given number mentally.
- Know how to partition 2-digit and 3-digit numbers.
- Order numbers up to 1000.
- Read numbers up to 1000 in numerals and words.
- Accurately estimate larger sets of objects.

- Add and subtract mentally 3-digit numbers and ones.
- Add and subtract 2-digit numbers in a range of real life contexts and role play.
- Use partitioning to support addition and subtraction.
- Recognise when an answer is sensible or not (e.g. 354+9=4321).
- Use inverse to check answers.

- Recall and use multiplication facts for the 3 and 4 multiplication tables.
- Know that multiplication is commutative and division is not.
- Solve problems involving multiplication and division.
- Recognise patterns in numbers based on multiples

- Know that a tenth arises from dividing an object into 10 equal parts and write this as $1/10$.
- Know the role of the numerator and denominators (with denominator being the divisor).
- Count up and down in taught fractions including tenths, including beyond 1.
- Place ½ values on a number line (eg placing 4 ½ between 4 & 5)
- Compare and order $1/3$s, ¼ s and ½ s..
- Know that fractions other than ½ have equivalent forms. Add and subtract using ½ s and ¼s.

MET- / MET column:

- Count from 0 in multiples of 4, 8, 50 and 100 (up and back).
- Find 10 or 100 more or less than a given number mentally.
- Recognise the place value of each digit in a 3 digit number (including with zero value).
- Compare and order numbers up to 1000 (e.g. using number lines and <>).
- Read and write and spell numbers up to 1000 in numerals and in words. Identify, represent and estimate numbers using different representations (e.g. grouping, tallying etc.)

- Add and subtract numbers mentally, including;
  - o   3-digit number and ones
  - o   3-digit number and tens
  - o   3- digit numbers and hundreds.
- Add and subtract numbers with up to 3-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.

- Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.
- Write and calculate mathematical statements for multiplication and division including for two-digit numbers times one-digit numbers.
- Solve problems, including missing number problems, involving multiplication and division.
- Solve positive integer scaling problems and correspondence problems in which n objects are connected to m objects.

- Count up and down in tenths; recognise that tenths arise from dividing an object 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
- Compare and order unit fractions, and fractions with the same denominators
- Solve problems that involve fractions and decimals

MET+ / Deep column:

- Reason using knowledge of 4s, 8s, 50s and 100s (e.g. explain why 38 is not a multiple of 4).
- Explain how some tables can help you with others (e.g. 2s and 4s, 3s and 6s)
- Justify their method when adding and subtracting multiples of 10 and 100 (e.g. 20 or 400).
- Explain why the value of a digit changes when it moves columns.
- Compare and contrast a set of 3-digit numbers, reasoning about similarities and differences.
- Justify why their approach to solving place value and number facts problems was efficient.

- Experiment with mental methods to suit different contexts and use formal methods of addition and subtraction.
- Explain why the formal method is more efficient than the partitioning method.
- Explain the links within a family of calculations across all 4 operations.
- Explain how they approach problems with multiple solutions in an efficient and logical manner (e.g. Find two numbers whose total is 325.)

- Explain links between other multiples based on 2s, 3s, 4s and 8s (e.g. 40s, 6s, 16s).
- Generalise about commutativity to help solve problems involving unfamiliar multiplication and division facts (e.g. 40 x 3 = 4 x 10 x 3 = 4 x 3 x 10).
- Prove an hypothesis using scaling as evidence.

- Create problems involving tenths. Reason about the position of non-unit fractions on a number line.
- Generalise using numerators and denominators and equivalence across taught fractions.
- Create contextualised problems involving + and - with fractions.

ARE SUMMARY   Number   Calculation   Fractions   Measures   Geometry   Statistics

A Joint Project Between…
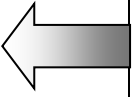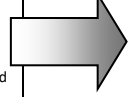
Brighton & Hove   Reading BOROUGH COUNCIL

• Meaure and compare using appropriate standard metric units to the nearest appropriate unit. • Know that perimeter means to' measure around the outside'. • Add and subtract using pence in practical contexts. • Know there are 100p in £1. • Know how many minutes in ½ hour, ¼ hour and ¾ hour. • Accurately record time in minutes and hours. • Use vocabulary such as o'clock, morning, afternoon. • Know there are 60 seconds in a minute. • Know what 'duration' means • Describe the properties of common 2-D and 3-D shapes using accurate language, including angles and symmetry. • Recognise angles as a description of a turn. • Identify right angles around them in the real world. • Compare whether angles are greater than or less than a right angle. • Know what horizontal and vertical mean and can identify parallel lines in shapes. • Know the difference between a bar chart and a block graph. • Building on Y2, solve one-step questions using information presented in scaled bar charts and pictograms.	• Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml). • Measure the perimeter of simple 2-D shapes. • Add and subtract amounts of money to give change, using both £ and p in practical contexts. • 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 and read time with increasing accuracy to the nearest minute. Record and compare time in terms of seconds, minutes and hours (single unit only). • Use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and 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. • 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 and 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 (in shapes). Identify pairs of perpendicular and parallel lines in shapes. • Interpret and present data using bar charts, pictograms and tables. • Soolve one-step and two-step questions using information presented in scaled bar charts and pictograms and tables.	• Compare using mixed units of measure (e.g. 1kg and 200g). • Measure the perimeter of shapes involving mixed units (e.g. cm and mm). • Explain how the formal method is more efficient than converting between units of money. • Calculate and explain differences in time involving a mix of 12 and 24 hour clocks. • Estimate and read time with increasing accuracy on faces without minute markings. • Record and compare time with mixed seconds, minutes and hours. • Consistently use correct vocabulary across a range of time contexts. • Explain wider time groupings (e.g. decade and century). • Explain why different 3D shapes can cast the same shadow. • Explain the differences between 2 shapes using the language of angles. • Solve and create maze puzzles involving multiples of quarter turns. • Distinguish between angles that are greater than or less than a right angle within complex patterns. • Create shapes and patterns with a given number of vertical or horizontal sides. • Explain why a pair of lines are parallel or perpendicular. • Justify choices in presenting data. • Prove or disprove given conjecture using information presented in scaled bar charts, pictograms or tables [for example, 'I think that July and August are the hottest months in all parts of the world becausee.....']

Start	Emerging	MET-	MET	MET+	Deep

Fluently uses 4 digit numbers in a range of contexts, including addition and subtraction problems. Knows all multiplication tables to 12 x 12 and uses these to solve problems in context. Fluently uses the formal written methods of addition, subtraction and multiplication. Can add and subtract fractions with the same denominator and recognises simple fraction/decimal equivalents. Can convert between metric units to solveproblems and can find the area of shapes by counting squares. Uses their knowledge of different angles when describing properties of shape. Reads and plots co-ordinates in the first quadrant. Accurately interprets continuous data to solve problems. Can explain their methods and give simple reasons for their thinking.

Column 1 (Start / Emerging):

- Count up in 3s, 6s, 25s and 1000s from 0.
- Find 1000 more than any given number.
- Order a set of 4-digit numbers.
- Know how to partition 3-digit and 4-digit numbers.
- Read 4-digit numbers in numerals.
- Begin to use staregies to estimate larger sets of objects.
- Round to the nearest 10 using number lines.
- Know that our number system has changed over time.
- Read Roman Numerals to 10 (X).

- Effectively choose when it is more efficient to calculate mentally rather than use a written method (e.g. 1000+9 or 1020-19).
- Add and subtract 3-digit numbers using formal written methods in a range of real life contexts and single step problems.
- Use inverse operations to check their answers.
- Solve missing number addition and subtraction problems.

- Recall and use multiplication facts for the 2s, 3s, 4s, 5s, 6s and 10s in a range of real life contexts and role play.
- Use a multiplication square for remaining tables to help solve problems.
- Use commutativity to make mental multiplication easier.
- Use partitioning with written multiplication including 2-digit by 1-digit numbers.
- Use multiplication and division to solve problems in a range of contexts.
- Spot relationships between integer ratios based on 2,3,5 and 10 (i.e. 1:2 or 3:9)

- Spot equivalence involving $^1/_3$ s, ½s, ¼s and $^1/_{10}$ s.
- Count up and down in taught fractions, including hundredths.
- Know that $^1/_{100}$ arises by dividing an object or quantity by 100. Add and subtract fractions with the same denominator where the answer goes beyond one whole (e.g. 1 $^1/_3$).
- Know the function of the decimal point and relate this to measures and money.
- Know that fractions have a decimal equivalent.

Column 2 (MET- / MET):

- Count in 6s, 7s, 9s 25s and 1000s from 0 (up/back).
- Find 1000 more or less than any given number mentally.
- Recognise the value of each digit in a 4 digit number.
- Compare and order a set of numbers beyond a 1000 (e.g. using number lines and <>).
- Identify, represent and estimate numbers using groupings (tallies, groups of 25, 50, 100).
- Read and write 4-digit numbers in numerals and words (including accurate spelling).
- Round any number to the nearest 10, 100 and 1000 (using number lines).
- Read Roman numerals to 100 (I to C).
- Know that over time, the numeral system changed to include the concept of zero and place value.
- Solve number and practical problems using all of the above and with increasingly larger positive numbers.

- Add and subtract numbers with up to 4 digits using the formal written methods of addition and subtraction where appropriate.
- Estimate and use inverse operations to check answers to a calculation.
- Solve addition and subtraction two-step problems in contexts.
- Decide which operations and methods to use and why within problem solving.

- Recall multiplication and division facts for multiplication tables up to 12 × 12.
- Use place value, known and derived facts to multiply and divide mentally.
- Multiplying by 0 and 1; dividing by 1; multiplying together three numbers.
- Recognise and use factor pairs.
- Understand commutatively in mental calculations.
- Multiply two-digit and three-digit numbers by a one-digit number using formal written layout. Solve problems involving multiplying and adding.
- Use the distributive law to multiply two digit numbers by one digit.
- Solve harder correspondence problems such as n objects are connected to m objects.

- Recognise and show, using diagrams, families of common equivalent fractions.
- Count up and down in hundredths.
- Recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.
- Use fractions to divide quantities, including non-unit fractions where the answer is a whole number.
- Add and subtract fractions with the same denominator.
- Recognise and write decimal equivalents of any number of tenths or hundredths.
- Recognise and write decimal equivalents to ½, ¼, ¾.
- Find the effect of dividing a one- or two-digit number by 10 and 100.
- Round decimals with one decimal place to the nearest whole number.
- Compare numbers with the same number of decimal places up to two decimal places.
- Solve simple problems involving increasingly harder fractions and some decimals (e.g. time, money, measures)

Column 3 (MET+ / Deep):

- Generalise using knowledge of 6s, 7s, 9s 1000s and beyond (e.g.I know that 18 is a multiple of 6 therefore is must also be a multiple of 3, I know that 77 is multiple of 7 therefore 7777 will be too).
- Know why other tables can't help with 7s and 11s.
- Justify their method when adding and subtracting multiples of 1000s mentally (e.g. 4000).
- Justify how larger and smaller numbers can be created using the same 4 digits.
- Explain how their methods make estimating and grouping of larger sets of objects more efficient.
- Use rounding as part of problem solving.
- Argue which system is more effective - Roman numerals or the Arabic system we use today.

- Explain how their approach to a calculation depends on the context and range of numbers.
- Use formal methods of addition and subtraction accurately in a range of real life contexts.
- Justify their approaches to multi-step addition and subtraction problems and use inverse operations across the steps to check their answers.
- Spot calculations within real life scenarios and role play (e.g. shop or bank corner).

- Explain links between known tables and other multiples (e.g. 24s, 20s, 18s, 33s etc.).
- Explain what happens when you multiply by 0 and divide by 1,using examples to explain]their reasoning.
- Identify common factors within a set.
- Solve multi-step problems that involve mixed calculations and explain their methods.
- Reason about their methods when using the distributive law and explain how this makes mental calculation easier.
- Prove an hypothesis using scaling as evidence using n:m notation.

- Create problems involving hundredths.
- Explain the link between fractions and multiplication (e.g. 20 x ¼ = 5 is equivalent to $^{20}/_4$ = 5).
- Explain how to calculate decimal equivalents of simple fractions. Reason about what happens to the value of numbers as they pass the decimal point when multiplying or dividing by 10 and 100.
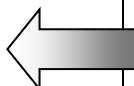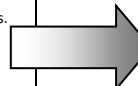- Compare numbers with different decimal places and explain their reasoning.

| ARE SUMMARY | Number | Calculation | Fractions | Measures | Geometry | Statistics |

A Joint Project Between...

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- Sort measures into the correct families (e.g. cm, mm, m = length / mg, g, kg = mass / ml, cl, l = volume etc.).
- Identify the context of a measure problem e.g. a time problem or a capacity problem.
- Measure the perimeter of a simple shape using cm.

- Explain why a shape is a quadrilateral.
- Know that triangles is a family of shapes and there are different types of triangles, beyond the right angled triangle.
-
- Know that there are different types of angles beyond right angles and begin to use the terms acute angles, obtuse angles and right angles.
- Identify single simple lines of symmetry in shapes.

- Plot coordinates in the first quadrant using (x, y) [e.g. (2,4)].
- Know what translation means; understand that while the shape's location will change, the overall form will remain the same (e.g. 'stamping').

- Know the difference between discrete and continuous data.

- With support answer questions about bar charts, pictograms and tables.

- Convert between different units of measure [e.g., kilometre to metre; hour to minute].
- Estimate, compare and calculate different measures, including length, mass and money in pounds and pence in order to solve problems.
- Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.
- Find the area of rectilinear shapes by counting squares.

- Compare and classify geometric shapes, including different quadrilaterals and different triangles, based on their properties and sizes.
- Identify acute and obtuse angles and compare and order angles up to two right angles by size.
- 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.

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

- Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.

- Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.

- Explain the relationships between different units of measure and the calculations needed to convert between them (e.g. I need to multiply a length in m by 100 to measure it in cm).
- Justify and explain their approach to solving problems that involve mixed measures.
- Articulate the difference between perimeter and area using mathematical terminology.
- Use their knowledge of squares and oblongs to calculate perimeters.
- Explain how to find a range of different areas all with the same perimeter.

- Explain the similarities and differences between isosceles, scalene, right angled and equilateral triangles.
- Sort and re-sort within families of shapes using changing criteria explaining why some shapes have moved groups and other remained the same (e.g. a range of triangles or a set of quadrilaterals).

- Explain strategies for comparing and ordering angles using correct mathematical language.
- Create symmetrical figures based on more than one line of symmetry and explain relationships between the reflections.
- Explain the relationship between the number of sides in a regular polygon and its lines of symmetry.

- Complete shapes using coordinates (links to quadrilaterals and triangles), explaining their method.
- Explain translation using algebraic formula (e.g. (x+4 , y-2))

- Justify choices when using graphs, including how this is influenced by continuous or discrete data. (e.g. I wouldn't use a line graph to show the results of a poll on favourite pet)

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Y5 Mathematics

Start	Emerging	MET-	MET	MET+	Deep

Fluently uses numbers up to 1 million and decimal numbers up to 3dp in a range of contexts, including addition and subtraction problems. Can multiply/divide decimals by 10, 100 and 1000 and uses this to solve problems in context. Fluently uses the formal written methods of addition, subtraction, multiplication and short division. Can add and subtract fractions and recognises simple fraction/decimal equivalents. Can identify factor pairs and knows when a number is a prime, square or cube number. Works with improper fractions multiplying fractions by a whole number and can write decimals as fractions. Converts between simple fractions decimals and percentages. Can solve problems involving mixed metric units and imperial measures and can find the area and volume of shapes. Can measure angles in degrees and knows angles at a point sum to 360° and angles on a straight line sum to 180°. Accurately interprets continuous data to solve sum, difference and comparison problems. Can explain their methods when solving multi-step problems and reason their thinking when investigating.

Start / Emerging column:

- **Begin to read and write numbers bigger than 1000.**
- **Count forwards and backwards in steps of 10s, 100s and 1000s (eg 127, 227, 337 / 1237, 1137, 1037, 937)**
- **Count forwards and backwards into negative numbers insteps of one.**
- **Round any number less than 10,000 to the nearest 10, 100 or 1000.**
- **Solve simple number and practical problems that involve some of the above.**
- **Read Roman numerals to 500.**

- Accurately add and subtract 4 digit numbers using formal written methods.
- Multiply a 2 digit number by a 2 digit number using a formal written method.
- Add and subtract some 3 or 4 digit numbers mentally.
- Multiply numbers mentally drawing on known facts.
- Divide a 3 digit number by a one digit number using a formal written method of short division where there is a whole number answer.
- Use rounding to check calculations.
- Multiply and divide whole numbers by 10, 100 and 1000 where there are whole number answers.
- Solve addition and subtraction multistep problems in context

- Know the difference between factors and multiples.
- Know that a prime number has only 2 factors and recall prime numbers up to 10.
- Recognise square numbers and use the notation for squared (²).
- Understand the meaning of the equals sign (equivalence/balance).
- Know that scaling and rates problems involve multiplication and division.

- Order pairs of fractions with the same denominator.
- Find families of equivalent fractions using diagrams.
- Recognise that improper fractions can be written as mixed numbers and that they represent numbers >1.
- Begin to add fractions with denominators that are multiples of the same number with support.
- Multiply proper fractions by 2 or 3 with support.

- Read and write single digit decimals as fractions (e.g. 0.8; 0.02).
- Begin to recognise thousandths as the third decimal place.
- Round decimals with 2 decimal places to the nearest whole number.
- Read write order and compare numbers up to 2 decimal places.
- Solve problems with numbers up to 2 decimal places in the context of money.
- Notice percent symbols in everyday contexts (such as test scores out of 100) and know that this relates to 'parts out of hundred'.

MET- / MET column:

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

- Add, subtract and multiply whole numbers with more than 4 digits, including using formal written methods.
- Calculate mentally using all 4 operations with increasingly large 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.
- Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.
- Solve multi-step problems in contexts, deciding which operations and methods to use and why.
- Solve scaling problems by simple fractions and problems involving simple rates.

- 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 numbers and cube numbers, and the notation for squared (2) and cubed (3).
- Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.

- Compare and order fractions whose denominators are all multiples of the same number.
- Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.
- Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, 2/5 + 4/5 = 6/5 = 1 1/5].
- Add and subtract fractions with the same denominator and denominators that are multiples of the same number.
- Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.

- Read and write decimal numbers as fractions [for example, 0.71 = 71/100]
- Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.
- Round decimals with two decimal places to the nearest whole number and to one decimal place.
- Read, write, order and compare numbers with up to three decimal places.
- Solve problems involving number up to three decimal places.
- 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 which require knowing percentage and decimal equivalents.

MET+ / Deep column:

- Explain the position of numbers on a line and add in missing numbers.
- Recognise when it would be useful to count in powers of 10.
- Explore patterns and sequences using negative numbers and continue them e.g. -2, -5, -8
- Explain how/why to use rounding to solve problems in a range of contexts.
- Justify the methods chosen to solve number problems.
- Teach someone how to write the date in Roman numerals.

- Compare and contrast expanded and formal methods and explain when one is more efficient than the other and how they can be applied to numbers of any size.
- Defend the reasons for choosing one method over another being aware of any shortcomings.
- Explain chosen mental strategies when calculating with large numbers.
- Teach another child how to interpret remainders appropriately, linking them to fractions
- Invent contexts and stories to fit increasingly complex multistep problems.
- Solve problems involving multiplying and dividing any number by 10, 100 or 1000.

- Use a systematic approach to identify whether or not a number is prime.
- Use knowledge of multiples and factors to help simplify multiplication and division problems.
- Explore number patterns involving square and cube numbers.
- Create problems requiring addition, subtraction, multiplication and division and any combinations of these.
- Evaluate the best methods for solving problems through peer marking and be able to justify choices.

- Place a range of fractions in order and justify their position using equivalence.
- Explain how equivalence is helpful when adding or subtraction fractions with different denominators.
- Explore number patterns involving fractions including top heavy fractions or mixed numbers.
- Explore fractions that result in recurring decimals (e.g. 1/3).

- Explain how to extend the decimal system using the patterns of the place value system.
- Defend the reason for rounding up/down to a specific number of decimal places in different contexts.
- Justify reasons for one number being of higher/lower value than another using knowledge of place value.
- Demonstrate how to solve a problem using up to 3 decimal places.
- Create suitable contexts for a range of different levels of accuracy (e.g. metres and centimetres: 2 dp).
- Work efficiently with percentages in a range of representations, %, decimal or fraction and justify the use of each or any of these.

ARE SUMMARY   Number   Calculation   Fractions   Measures   Geometry   Statistics

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- Order families of metric measures by size (e.g. mm < cm < m < km).
- Know that we commonly use metric units today, but some imperial measures are still in use.
- Identify metric and imperial units in everyday contexts.

- Calculate the perimeter and area of squares and oblongs in cms and metres.
- Identify composite rectilinear shapes and split them into their composite parts.
- Know the difference between volume and capacity and the metric measures used for each.

- Label 2-D pictures of common 3-D shapes.
- Know the properties of rectangles (oblongs/squares) and use this to label missing lengths in parallel sides.
- Know what regular and irregular means in relation to shapes.

- Complete simple symmetrical figures around more than one line of symmetry.
- Know that when translating a shape its position changes but its appearance does not.
- Translate simple shapes based on given instructions.
- Know that angles are measured in degrees.
- Order given angles and correctly categorise them as acute, obtuse, reflex or right angles.
- Identify the missing angles in a square or rectangle. Calculate missing angles to total a right angle.

- Know the key components of a line graph and when / where it is used.

- Use line graphs to make direct conversions between metric and imperial measures with support.

- Convert between different units of metric measure (e.g., kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre).
- Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.

- Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.
- Calculate and compare the area of rectangles (oblongs and squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes.
- Estimate volume [e.g., using 1 cm^3 blocks to build cuboids (including cubes)] and capacity [e.g., using water].
- Use all four operations to solve problems involving measure [e.g., length, mass, volume, money] using decimal notation, including scaling and converting units of time.

- Identify a range of 3-D shapes from 2-D representations (eg nets).
- Use the properties of rectangles (oblongs/squares) to deduce related facts and find missing lengths and angles.
- Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.

- 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.
- Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.
- Draw given angles, and measure them in degrees (o).
- Identify angles at a point and one whole turn (total 360o), angles at a point on a straight line and ½ a turn (total 180o) and other multiples of 90o.

- Solve comparison, sum and difference problems using information presented in a line graph.

- Complete, read and interpret information in tables, including timetables.

- Order a range of different mixed metric and imperial measures e.g. 192cm, 1.3 m and 124mm using formula or conversion charts to help them.
- Explain approaches to solving problems which involve mixed imperial and metric measures (e.g. Patrick says 'I travelled 9 miles to school'. Bob says 'I travelled 18km'. Who travelled the furthest?)

- Articulate the difference between cm and cm^2 and cm^3 etc.
- Test conjectures about relationships between perimeter and area of given shapes, proving or disproving using algebraic language.
- Begin to use formula when calculating volumes in real life and problem solving contexts.

- Justify multiple possibilities as what a 3-D shape may be when only one or two faces are shown in a 2-D representation (i.e. It could be a …..OR a ….. because….)
- Use algebraic expressions to justify their solutions to missing length and angle problems (including when only given the perimeter of a square).

- Predict the location of a shape after a series of translations or reflections, visualising the sequence in their heads and recording the final location using precise co-ordinates.
- Link missing angle problems with inverse operations and express their thinking algebraically.
- Create their own missing angle problems.

- Solve multi-step problems that draw from more than one source of information.

ARE SUMMARY   Number   Calculation   Fractions   Measures   Geometry   Statistics

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| Start | Emerging | MET- | **MET** | MET+ | Deep |

Fluently uses numbers up to 10 million and decimal numbers up to 3dp in a range of contexts, including addition, subtraction, multiplication and division problems. Uses symbols to describe relationships and patterns and solves simple algebraic equations. Can multiply/divide decimals by 10, 100 and 1000 and uses this to solve problems in context. Fluently uses the formal written methods of addition, subtraction, multiplication and long/short division. Can correctly interpret remainders in relation to the context. Can identify common factors, common multiples and prime numbers and use to simplify fractions. Can add, subtract, multiply and divide fractions and recognises fraction/decimal/percentage equivalents.   Can solve problems involving conversion between metric and imperial measures and can find the area of compound shapes and volume of shapes using formula. Uses a range of properties to compare shapes and can identify the key properties of circles. Can reflect and translate shapes in all 4 quadrants. Accurately interprets pie charts and line graphs to solve problems and can calculate the mean average of a set. Can explain their methods when solving multi-step problems and reason their thinking when investigating.

Start / Emerging column:

- Know the value of each digit up to 1,000,000.
- Know the method for rounding numbers and be able to round where only one digit needs contracting (e.g. 1420 to the nearest 100.)

- Continue a number sequence according to a given rule.
- Begin to use symbols to describe a generalised relationship.
- Check if a pair of numbers satisfies an equation with two unknowns.
- Know that there can be more than one pair of numbers satisfying a rule with two variables.

- Multiply a 4 digit number by a 2 digit number using expanded written methods.
- Divide numbers up to 4 digits by a two-digit whole number using expanded written methods and jottings.
- Interpret remainders as whole number remainders or fractions (eg r 3 or 3/8)
- Begin to use efficient strategies to perform mental calculations.

- Find common factors and multiples using knowledge of tables.
- Know what a prime factor is.
- Use the correct order of operations when carrying our multi-step calculations.
- Begin to choose appropriate methods for solving addition and subtraction problems.

- Solve problems involving addition, subtraction, multiplication and division.
- Use estimation to check answers to calculations and recognise when answers are obviously incorrect by a factor of 10 or more.

- Continue number patterns using given ratio
- Can calculate simple %s of amounts with support (eg 10% of 100, 20% of 1000)
- Use standard methods to simplify simple fractions dividing denominator and numerator by a common factor.
- Know how scale factors are used in every day life (eg scale drawings, maps)
- Compare pairs of fractions by converting both to the same denominator.
- Add and subtract fractions with different denominators where these can be easily converted (e.g. fifths and tenths, thirds and sixths).
- Find halves of unit fractions and know that 'x ½' is equivalent to '÷ 2'.

- Identify digits in the tenths, hundredths and thousandths column.
- Multiply and divide numbers by 10, 100 and 1000 where up to one decimal place will result.
- Multiply numbers with up to one decimal place by whole numbers.
- Use written division methods and begin to use decimal results instead of remainders.
- Solve problems which require answers to be rounded.
- Recall equivalences between simple fractions, decimals and percentages.

MET- / MET column:

- Read, write, order and compare numbers up to 10,000, 000 and determine the value of each digit.
- Round any whole number to a required degree of accuracy.
- Use negative numbers in context, and calculate intervals across zero.
- Use simple forumulae
- 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
- Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.
- divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context
- divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context
- Perform mental calculations, including with mixed operations and large numbers.
- Identify common factors, common multiples and prime numbers.
- Use their knowledge of the order of operations to carry out calculations involving the four operations.
- Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
- Solve problems involving addition, subtraction, multiplication and division.
- Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
- Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts
- Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison
- Solve problems involving similar shapes where the scale factor is known or can be found
- Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.
- Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.
- Compare and order fractions, including fractions > 1.
- Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. M
- Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, ¼ × ½ = 1/8.]
- Divide proper fractions by whole numbers [for example, 1/3 ÷ 2 = 1/6].
- Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8].
- Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places.
- Multiply numbers with up to two decimal places by whole numbers.
- Use written division methods in cases where the answer has up to two decimal places.
- Solve problems which require answers to be rounded to specified degrees of accuracy.
- Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.

MET+ column:

- Use the pattern of place value language to read increasingly large numbers involving billions and trillions.
- Explain why different degrees of accuracy might be needed in different contexts, for example, why it is inappropriate to measure the distance between two cities to the nearest cm.
- Explore contexts when it might be necessary to round up or down disregarding rounding rules (e.g. how many cars to carry 11 people.)

- Explain similarities and differences between number sequences.
- Use algebraic notation to describe a number sequence in more than one way and expain why the expressions are equivalent.
- Explain and demonstate how algebraic expressions can be used to model real life situations.

- Use efficient methods to multiply and divide increasingly large numbers by 2 digit numbers.
- Explain how taught methods could be extended to multiply and divide by numbers with more than 2 digits or by decimals.
- Use efficient short cuts to facilitate performing more complex mental calculations.
- Investigate the range of possible answers using different operations with a fixed set of numbers, (e.g. use 5 2's to make all the numbers from 1 – 20).
- Explain why some answers may not be possible.

- Explore patterns within sets of prime numbers, factors and multiples and use knowledge of these to help solve problems.
- Create contexts for increasingly complex multistep problems involving addition, subtraction, multiplication and division.
- Have a strong sense of number and use this to recognise when answers are obviously incorrect.
- Explain why a given degree of accuracy is appropriate.

- Fluently express fractions, including those >1, in a range of equivalent forms and use these representations to evaluate differences.
- Use knowledge of addition and subtraction of fractions to solve problems and explore fractional number patterns.
- Multiply and divide pairs of fractions cancelling down answers to their simplest forms.
- Use fractions to maintain accuracy when use of a decimal would result in recurring places (e.g. thirds, sevenths or ninths).

- Explore patterns with recurring decimals (e.g. sevenths).
- Move fluently between different representations of fractional parts, (decimals, fractions and percentages) and justify which is appropriate to use in a given contexts.

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ARE SUMMARY   **Number/Algebra**   **Calculation & Ratio/Proportion**   **Fractions**   **Measures**   **Geometry**   **Statistics**

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- Convert between metric units of measure up to 2 decimal places.
- Explain relationships between metric measures and how these are used to convert (e.g. I need to multiply m by 100 to convert into cms).
- Convert between metric and imperial measures using conversion charts.
- Sort metric measures into families based on function (e.g. cm³, m³, km³ = volume, ml, cl, l= capacity).

- Select the correct measurement for the task in hand (e.g. mm for small perimeter or litres for larger capacity).
- Use a formula to calculate the area of squares and oblongs.

- Draw 2-D shapes using given side dimensions.
- Know that a net is the 2-D pattern that creates a 3-D figure.
- Use the properties of rectangles (oblongs/squares) to deduce related facts and find missing lengths and angles.
- Know there is 360o in a circle and the edge is called the circumference.
- Know there are 180o in a straight line and 360o in a full turn and use this to identify missing angles.

- Confidently plot coordinates and translate shapes in the first quadrant.
- Know that the x and y axes can be positive or negative.
- Read coordinates in all four quadrants.

- Interpret and construct tables, bar charts and line graphs and use these to solve problems.

- Read pie charts.

- Know that mean is one type of average.

- solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate
- use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places
- convert between miles and kilometres
- recognise that shapes with the same areas can have different perimeters and vice versa
- recognise when it is possible to use formulae for area and volume of shapes
- calculate the area of parallelograms and triangles
- 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 [for example, mm3 and km3].

- draw 2-D shapes using given dimensions and angles
- recognise, describe and build simple 3-D shapes, including making nets
- compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
- illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
- recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.

- 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.

- Interpret and construct pie charts and line graphs and use these to solve problems.

- Calculate and interpret the mean as an average.

- Construct conversion charts using their understanding of two different units of measure (e.g., miles and kilometres) and explain direct relationships using ratios.
- Create their own multi-step problems based on conversion graphs.

- Test conjectures involving volume (e.g. This cube has a volume of 729 cm³ sides. I think I could fit 3 cubes which have a side length of 3cm inside my bigger cube. Am I right?)
- Justify why the formulae for area or volume of certain shapes always work, regardless of size.
- Begin to use formulae to calculate the area of triangles and parallelograms.

- Link 3-D shapes with their net and explain why a given net would not properly form the desired shape.
- Classify geometric shapes on multiple critera and justify their thinking using precise mathematical language.
- Articulate the relationship between radius, diameter and circumference.
- Generalise about parts of a circle (e.g. if the diameter is three times as big, the circumference must also be three times as big).

- Prove why vertically opposite angles are always equal.
- Predict the location of a shape after a series of translations or reflections in all four quadrants, visualising the sequence in their heads and recording the final location using precise co-ordinates.

- Solve multi-step problems that draw across more than one information source, including pie charts.

- Prove or disprove conjectures using a range of information sources.