

# Mathematics

## Core and Extended Curriculum Overview 2026-27

Mathematics is a core curriculum entitlement across both the Core and Extended Pathways. At Cleaswell Hill, the mathematical content a pupil is taught is determined by assessed mathematical stage, secure prerequisite knowledge and next steps - not by chronological age. The year-group and key-stage labels used within online assessment system and the National Curriculum identify the source and increasing complexity of mathematical content; they do not identify the age of the pupil who should access it. Age-respectful contexts, resources and applications are used throughout.

### Intent

Our Maths curriculum is ambitious, sequential and highly personalised. It develops secure number sense, mathematical fluency, reasoning, problem-solving and the functional mathematics pupils need for greater independence, community participation, future learning and employment.

Pupils build mathematical knowledge from their individual starting points. Teaching identifies and secures prerequisite concepts before moving pupils into more complex content. Pupils are expected to understand, represent, apply and increasingly generalise what they learn, rather than simply complete age-linked activities.

### Implementation

A whole-school half-termly spine gives coherence to what is taught, while the level of content within each strand is selected according to the pupil's mathematical stage. Pupils may therefore access Launching into Maths, Pre-Key Stage content, National Curriculum content from Year 1 to Key Stage 3, or an appropriate qualification route, irrespective of chronological age.

Online frameworks, Launching into Maths benchmarks, curriculum trackers, stage-specific pre-teach vocabulary resources and qualification specifications support planning and assessment. Practical, visual and symbolic representations are selected to remove barriers and make mathematical structures explicit. Older pupils working at earlier mathematical stages continue to access age-respectful contexts and increasingly functional applications.

### Impact

Pupils know more, remember more and can use mathematics with increasing accuracy, independence and flexibility. They secure prerequisite knowledge, make connections between mathematical ideas, explain or demonstrate their thinking through their preferred communication methods, and apply mathematics in practical, community, vocational and Preparation for Adulthood contexts.

## The key principle: mathematical stage, not pupil age

| Element            | What it means for Maths                                                                                                                                                                 |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Chronological age  | Determines the maturity and relevance of contexts, examples, resources and Preparation for Adulthood applications.                                                                      |
| Mathematical stage | Determines the mathematical concepts, representations, vocabulary, level of abstraction and assessment statements taught.                                                               |
| Pathway            | Core or Extended provision supports the pupil's wider learning profile; it does not impose a fixed Maths level. Core pupils may access Extended Maths/English groups where appropriate. |

| Element     | What it means for Maths                                                                                                                                       |
|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Progression | Pupils move on when prerequisite knowledge is sufficiently secure.<br>Different mathematical areas can require different levels of consolidation and support. |

## Curriculum architecture: one Maths entitlement, multiple starting points

The curriculum is organised as a progression of mathematical stages. These stages are reference points for content and assessment; they are not age placements.

| Mathematical stage                   | Reference                                             | Main mathematical focus                                                                                                  | Primary planning / assessment source                              |
|--------------------------------------|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| Launching into Maths (Pre Key Stage) | Benchmarks 1-10                                       | Counting; cardinality; composition; comparison; measure; shape; pattern; position and direction.                         | Launching into Maths assessment. STA pre-key stage framework.     |
| NC Year 1-2 reference content        | Key Stage 1                                           | Number and place value; addition/subtraction; multiplication/division; fractions; measurement; geometry; statistics.     | KS1 Assessment and National Curriculum                            |
| NC Year 3-4 reference content        | Lower Key Stage 2                                     | Increasing number range; formal methods; multiplication/division; fractions/decimals; measurement; geometry; statistics. | KS2 Assessment and National Curriculum                            |
| NC Year 5-6 reference content        | Upper Key Stage 2                                     | Larger number; multi-step calculation; fractions/decimals/percentages; ratio; algebra; geometry; measure; statistics.    | KS2 Assessment and National Curriculum                            |
| Key Stage 3 reference content        | KS3                                                   | Number; algebra; ratio/proportion/rates of change; geometry and measures; probability; statistics.                       | KS3 Assessment and National Curriculum                            |
| Qualification route                  | Entry Level / GCSE or other appropriate specification | Mathematics selected to match attainment, intended destination and qualification requirements.                           | Awarding-body specification; qualification evidence and trackers. |

*A pupil does not have to be the chronological age associated with a National Curriculum year-group label to be taught from that mathematical stage.*

## Whole-school Maths curriculum spine 2026-27

The long-term scheme keeps the mathematical focus coherent across the school while allowing every pupil to access the same broad strand at an appropriate level of complexity. The columns below are curriculum stages, not age groups.

| Half term       | Launching / Pre-NC          | KS1 reference                                               | LKS2 reference                                              | UKS2 reference                                                        | KS3 reference                                | Qualifications          |
|-----------------|-----------------------------|-------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------|-------------------------|
| <b>Autumn A</b> | Counting                    | Number -<br>Number &<br>Place Value                         | Number -<br>Number &<br>Place Value                         | Number -<br>Number &<br>Place Value                                   | Number                                       | Following specification |
| <b>Autumn B</b> | Cardinality                 | Number -<br>Addition &<br>Subtraction                       | Number -<br>Addition &<br>Subtraction                       | Number -<br>Addition,<br>Subtraction,<br>Multiplication<br>& Division | Algebra                                      | Following specification |
| <b>Spring A</b> | Composition                 | Multiplication & Division;<br>Fractions                     | Multiplication & Division;<br>Fractions incl. decimals      | Fractions incl. decimals & percentages;<br>Ratio & Proportion         | Ratio, Proportion & Change                   | Following specification |
| <b>Spring B</b> | Comparison and Measure      | Measure                                                     | Measure                                                     | Measure                                                               | Geometry & Measure -<br>Properties of Shapes | Following specification |
| <b>Summer A</b> | Shape; Position & Direction | Geometry -<br>Properties of Shapes;<br>Position & Direction | Geometry -<br>Properties of Shapes;<br>Position & Direction | Geometry -<br>Properties of Shapes;<br>Position & Direction           | Geometry & Measure -<br>Position & Direction | Following specification |
| <b>Summer B</b> | Pattern                     | Statistics;<br>Number & Place Value                         | Statistics;<br>Number & Place Value                         | Algebra;<br>Statistics                                                | Probability;<br>Statistics                   | Following specification |

*Spring A within Launching into Maths prioritises composition unless the pupil is working below the identified prerequisite benchmark, in which case number remains the focus.*

## Mathematical Areas: what becomes more complex over time

| Area                              | Early foundations                                                 | Developing curriculum                                                                  | More advanced curriculum                                                                           |
|-----------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Number & place value              | One/lots; counting; cardinality; numeral-quantity matching.       | Place value; ordering; partitioning; positive/negative numbers; rounding.              | Integers, decimals, powers, standard form and accuracy.                                            |
| Addition & subtraction            | Combining, taking away, one more/less, composition.               | Number bonds; mental and written methods; inverse; estimation; multi-step problems.    | Mixed operations, accuracy, efficient strategies and contextual problem-solving.                   |
| Multiplication & division         | Equal groups, sharing, repeated addition, doubling/halving.       | Tables; arrays; factor pairs; short methods; scaling; correspondence.                  | Factors/multiples, primes, powers, long methods and order of operations.                           |
| Fractions, decimals & percentages | Whole/part; half; equal sharing.                                  | Unit/non-unit fractions; equivalence; tenths/hundredths; mixed/improper fractions.     | Operations with fractions; percentage; equivalence; decimal accuracy and proportional reasoning.   |
| Measurement                       | Big/small; length/height; capacity; weight; time; money.          | Standard units; perimeter/area; conversion; time; money; metric/imperial.              | Compound measures, formulae, area/volume, scale and functional measure.                            |
| Geometry & position               | Shape recognition; fitting; position; direction; simple patterns. | 2-D/3-D properties; angles; symmetry; coordinates; translation/reflection.             | Congruence, constructions, circle properties, Pythagoras/trigonometry and proof where appropriate. |
| Statistics / probability          | Sorting, pattern and early comparison.                            | Pictograms, tables, charts, data interpretation.                                       | Distributions, averages, scatter graphs, sample spaces and probability.                            |
| Algebra / ratio                   | Pattern and composition are the early foundations.                | Missing number relationships and simple formulae emerge through later primary content. | Expressions, equations, sequences, graphs, ratio, proportion and rates of change.                  |

## Launching into Maths: prerequisite mathematical development

Launching into Maths provides the bridge from early mathematical development into subject-specific National Curriculum mathematics. It is organised across ten benchmarks and eight strands: Counting, Cardinality, Composition, Comparison, Measure, Shape, Pattern, and Position & Direction.

The internal Launching into Maths map explicitly aligns Benchmarks 1-10 with the earlier Pre-Key Stage mathematics standards. This helps leaders and teachers see how prerequisite mathematical learning builds towards subject-specific National Curriculum content.

| Launching benchmark | Closest mapped Pre-Key Stage standard | Indicative mathematical development                                                                                                                                  |
|---------------------|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Benchmark 1         | PKS Standard 1                        | Early number words; one/lots; transaction; big/small; simple shape fitting; sorting by colour.                                                                       |
| Benchmark 2         | PKS Standards 1-2                     | Number names to 5; 1:1 correspondence; more; biggest/smallest; sorting; early positional understanding.                                                              |
| Benchmark 3         | PKS Standard 2                        | Counting beyond objects; numeral significance; same/more; longer/shorter; simple repeating patterns; familiar routes.                                                |
| Benchmark 4         | PKS Standard 3                        | Accurate counting to 5; numeral recognition/representation; smaller groups; low-value coin matching; named 2-D shape.                                                |
| Benchmark 5         | PKS Standard 3                        | Counting towards 10; numeral-quantity matching; early composition; same amount; full/empty; more complex pattern.                                                    |
| Benchmark 6         | PKS Standard 3                        | Accurate counting to 10; numerals 0-9; add one; combine groups; more; ordinal number; shape comparison.                                                              |
| Benchmark 7         | PKS Standard 3                        | Counting beyond 10; cardinal principle to 10; subtract one; total by counting; less; sides of basic 2-D shapes.                                                      |
| Benchmark 8         | PKS Standard 4                        | Count/order from different starting points; irregular groups to 10; add one; partition; compare change; coin values.                                                 |
| Benchmark 9         | PKS Standard 4                        | Count backwards from 10; form numerals to 10; add/subtract symbols; subtract one; share up to 10; time language.                                                     |
| Benchmark 10        | PKS Standard 4                        | Count to at least 20 forwards/backwards and in 2s; conservation; single-digit addition/subtraction; number bonds to 5; doubling/halving; measure and money language. |

*The benchmark-to-standard links above follow the school's Launching into Maths mapping. They support curriculum coherence; the official Pre-Key Stage standards retain their separate statutory assessment purpose.*

## Core Pathway Maths

Maths remains a distinct core subject within the Core Pathway. Pupils are grouped and taught according to mathematical attainment and access needs. The curriculum is not capped by class, phase or chronological age; pupils may access Extended Maths groups where assessment shows this is appropriate.

| Provision                                      | Possible Maths stage / route                                      | Assessment source                                                         | Curriculum emphasis                                                                                                               |
|------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Junior Core                                    | Launching into Maths; NC Year 1 and Year 2 reference content      | Launching into Maths online tracking; National Curriculum online tracking | Concrete, visual and functional mathematics; secure prerequisites; build fluency, mathematical language and independence.         |
| Senior Core - early curriculum route           | Launching into Maths; NC Year 1 and Year 2 reference content      | Online curriculum tracking                                                | Age-respectful contexts with mathematical content matched to stage.                                                               |
| Senior Core - functional / qualification route | Ascentis Maths (Stepping Stones to Functional Skills) Entry 1 & 2 | Qualification Tracking                                                    | Whole numbers; addition/subtraction; money/time; measures; shape/space; data handling.                                            |
| Senior Core - Entry Level route                | AQA Entry Level 1 & 2 Maths                                       | Qualification Tracking                                                    | Properties of number; four operations; money; geometry; statistics, with remaining components completed across the planned cycle. |
| Senior Core - personalised life skills route   | OCR Life and Living Skills Entry 1 & 2                            | Qualification Tracking                                                    | Early number; sequencing/sorting; money; measure; numerical information; time.                                                    |

## Senior Core 2026-27 coverage by half term

| Half term | Curriculum spine                                   | Senior Core applications / qualification coverage                                  |
|-----------|----------------------------------------------------|------------------------------------------------------------------------------------|
| Autumn A  | Counting / Number & Place Value                    | Whole numbers / Properties of number / early number skills                         |
| Autumn B  | Cardinality / Addition & Subtraction               | Addition; subtraction; four operations; sequencing/sorting / numerical information |
| Spring A  | Composition / Multiplication, Division & Fractions | Money and time; understanding/using money; Component 4 Money; OCR money units      |
| Spring B  | Comparison / Measure                               | Length, weight, capacity, temperature; Geometry; estimating and measuring          |
| Summer A  | Shape / Position & Direction                       | Shape and space; statistics; time-related OCR units                                |
| Summer B  | Pattern / Statistics / Number & Place Value        | Data handling, catch-up and planned completion of outstanding qualification units  |

## Core Pathway principle

A Senior Core pupil may be working within Launching into Maths, National Curriculum reference content or an Entry Level route. The maturity of the context should reflect the pupil's age; the mathematical demand should reflect the pupil's assessed stage.

## Extended Pathway Maths

Maths is also a core subject throughout the Extended Pathway. Unlike Extended foundation subjects, Maths is not organised primarily through age-related thematic experiences. Pupils are taught the mathematical content that corresponds to their assessed stage and progress through increasingly complex National Curriculum and qualification content as prerequisite knowledge becomes secure.

| Stage                                    | Curriculum source                 | Main content                                                                                                          | Progression emphasis                                                                                                                       |
|------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
| Early National Curriculum reference      | NC Year 1-2                       | Number/place value; calculation; early multiplication/division; fractions; measure; geometry; statistics.             | Secure number sense, representation, fluency and practical application.                                                                    |
| Developing National Curriculum reference | NC Year 3-4                       | Three-/four-digit place value; written calculation; tables; fractions/decimals; measure; geometry; statistics.        | Increase efficiency, reasoning, mathematical vocabulary and independence.                                                                  |
| Later primary reference                  | NC Year 5-6                       | Larger numbers; multi-step operations; fractions/decimals/percentages; ratio; algebra; geometry; measure; statistics. | Apply across contexts, justify methods and prepare for KS3/qualification demand.                                                           |
| Key Stage 3 reference                    | KS3                               | Number; algebra; ratio/proportion/rates of change; geometry/measures; probability; statistics.                        | Develop increasingly abstract, connected and generalisable mathematics.                                                                    |
| Accredited study                         | Entry Level / GCSE as appropriate | Follow the selected specification.                                                                                    | Qualification is matched to attainment and intended destination; it does not replace the need to secure underlying mathematical knowledge. |

## Examples of stage-based teaching across age groups

| Example                                 | What this looks like                                                                                                                                                                                                                          |
|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Older pupil working within early number | Works on counting, cardinality, composition, money and measure at the relevant Launching/Pre-Key stage using mature, functional contexts such as shopping, travel, timetables, stock, cooking or enterprise rather than infantised materials. |

| Example                                            | What this looks like                                                                                                                      |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| Pupil secure in number but less secure in geometry | Receives geometry teaching from the stage that matches current understanding while continuing appropriately challenging number work.      |
| Pupil ready to move beyond class-level content     | Accesses higher-stage content or an Extended Maths group where appropriate, rather than waiting for age/phase progression.                |
| Pupil entering qualification study                 | Follows the selected specification but teachers continue to revisit prerequisites and functional application where these remain barriers. |

## Pre-Key Stage mathematics standards: mapped into the curriculum

The Standards and Testing Agency framework contains six mathematics standards for pupils who are engaged in subject-specific study but working below the overall standard of the national curriculum assessment. At Cleaswell, these standards are mapped into the Maths overview so that the relationship between early mathematical development, Launching into Maths and Key Stage 1 is transparent.

| Pre-Key Stage standard | Key mathematical content                                                                                                                                                                                                                                                                                                                                                                                                                    | Cleaswell curriculum alignment                                                      |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Standard 1             | <ul style="list-style-type: none"> <li>Understands a simple transaction.</li> <li>Distinguishes one from lots.</li> <li>Shows 1:1 correspondence.</li> </ul>                                                                                                                                                                                                                                                                                | Launching Benchmarks 1-2.                                                           |
| Standard 2             | <ul style="list-style-type: none"> <li>Identifies big/small.</li> <li>Sorts by a stated characteristic.</li> <li>Says number names to 5 in order.</li> <li>Represents a requested quantity to 5.</li> <li>Copies/continues a simple pattern.</li> </ul>                                                                                                                                                                                     | Launching Benchmarks 2-3, with related learning revisited through later benchmarks. |
| Standard 3             | <ul style="list-style-type: none"> <li>Identifies how many in groups up to 10.</li> <li>Understands the last count word gives the total.</li> <li>Adds/subtracts one using real materials.</li> <li>Continues a more advanced pattern.</li> </ul>                                                                                                                                                                                           | Launching Benchmarks 4-7.                                                           |
| Standard 4             | <ul style="list-style-type: none"> <li>Reads/writes numerals 0-9.</li> <li>Understands +, -, =.</li> <li>Solves single-digit addition/subtraction problems to 10.</li> <li>Understands composition to 5 and developing number bonds.</li> <li>Uses commutative/inverse relationships.</li> <li>Understands change and conservation of quantity.</li> <li>Counts to 20 with one more/less.</li> <li>Recognises common 2-D shapes.</li> </ul> | Launching Benchmarks 8-10 and transition into NC Year 1 reference content.          |

| Pre-Key Stage standard                             | Key mathematical content                                                                                                                                                                                                                                                                                                                                                                                                    | Cleaswell curriculum alignment                                                                    |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Standard 5 - working towards KS1 expected standard | <ul style="list-style-type: none"> <li>• Reads/writes numerals to 100 and partitions two-digit numbers.</li> <li>• Adds/subtracts two-digit numbers with ones/tens without regrouping.</li> <li>• Recalls key number bonds to 10.</li> <li>• Counts in 2s, 5s and 10s.</li> <li>• Knows coin values.</li> <li>• Names/describes common 2-D and 3-D shapes.</li> </ul>                                                       | NC Year 1-2 reference content; not mapped to a Launching benchmark in the school's Launching map. |
| Standard 6 - working at KS1 expected standard      | <ul style="list-style-type: none"> <li>• Reads scales in 1s, 2s, 5s and 10s.</li> <li>• Partitions two-digit numbers flexibly.</li> <li>• Adds/subtracts two-digit numbers efficiently.</li> <li>• Uses number bonds within 10/20 and 2, 5 and 10 multiplication/division facts.</li> <li>• Uses simple fractions of numbers/shapes.</li> <li>• Uses coins, time to 15 minutes and properties of 2-D/3-D shapes.</li> </ul> | Secure KS1 reference content and readiness for progression into later mathematics.                |

### Assessment principle

The official Pre-Key Stage standards are summative standards for statutory teacher assessment at the end of Key Stage 2 where applicable. The STA guidance is explicit that they are not a formative assessment tool and should not be used to track progress through the key stage or to determine a pupil's programme of study. At Cleaswell, day-to-day curriculum planning and formative assessment are therefore led by the school's more detailed Maths frameworks, including Launching into Maths, National Curriculum statements and qualification trackers. The Pre-Key Stage standards are mapped for coherence and statutory reporting, not used as the curriculum itself.

*The STA also notes that the standards may be useful as a reference for pupils of other ages, including secondary-age pupils, but there is no statutory requirement to use them outside end-of-Key-Stage-2 assessment.*

## Maths vocabulary: pre-teach, precision and progression

The school's pre-teach resources organise key mathematical vocabulary within Anchor, Goldilocks and Step-On at each curriculum stage. These categories are relative to the mathematical content being taught and are not fixed vocabulary levels across the school. As pupils progress, vocabulary that was previously Step-On may become Goldilocks or Anchor because it is now prerequisite knowledge for more complex learning. The year-group labels within the pre-teach resources identify the mathematical stage from which the vocabulary is drawn, not the chronological age of the pupil accessing it.

The examples below are illustrative snapshots from specified National Curriculum reference stages. The detailed pre-teach documents should be used for the full Anchor–Goldilocks–Step-On vocabulary progression within each mathematical strand.

| Mathematical area                    | Reference stage     | Anchor examples                                                                  | Goldilocks examples                                                                        | Step-On examples                                                                                        |
|--------------------------------------|---------------------|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| <b>Number &amp; Place Value</b>      | NC Year 1 reference | count; numbers; patterns; total; groups; ordering                                | forwards; backwards; more; less; equal; number line                                        | multiples; numerals; pictorial; problem-solving; most; least                                            |
| <b>Number &amp; Place Value</b>      | NC Year 3 reference | multiples; numerals; pictorial; problem-solving; most; least                     | partition; represent; estimate; two-digit; place holder; place value                       | three-digit; hundred; thousand; compare; different; similar                                             |
| <b>Addition &amp; Subtraction</b>    | NC Year 1 reference | add; subtract; numbers; counting; forwards; objects                              | equals; number bonds; altogether; zero; total; take away                                   | operations; more than; less than; difference between; pictorial; problem-solving                        |
| <b>Addition &amp; Subtraction</b>    | NC Year 3 reference | operations; more than; less than; difference between; pictorial; problem-solving | quantities; measure; commutative; inverse; sum; column method                              | mental arithmetic; three-digit number; estimate; check answers; partition; columnar subtraction         |
| <b>Multiplication &amp; Division</b> | NC Year 1 reference | groups; objects; numbers; counting; patterns; one-digit number                   | multiplication; division; pictorial; sharing; counting in 2s; counting in 5s               | array; doubling; fractions; counting in 10s; symbol; manipulatives                                      |
| <b>Multiplication &amp; Division</b> | NC Year 3 reference | array; doubling; fractions; counting in 10s; symbol; manipulatives               | odd numbers; even numbers; calculate; commutative; repeated addition; multiplication table | mental; written methods; positive integer scaling; correspondence; short multiplication; short division |
| <b>Fractions</b>                     | NC Year 1 reference | numbers; objects; shapes; matching; pictures; groups                             | half; quarter; fraction; sharing; equal; divide                                            | whole; part of; combining; discrete; continuous; measures                                               |

|                    |                     |                                                                      |                                                                                   |                                                                      |
|--------------------|---------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------|
| <b>Fractions</b>   | NC Year 3 reference | whole; part of; combining; discrete; continuous; measures            | equivalent; third; three quarters; unit fraction; non-unit fraction; mixed number | tenths; denominators; compare; order; operators; integers            |
| <b>Measurement</b> | NC Year 1 reference | length; height; weight; time; coins; clock                           | mass; capacity; volume; sequence; dates; hour                                     | standard units; compare; change; analogue; money symbols; intervals  |
| <b>Measurement</b> | NC Year 2 reference | standard units; compare; change; analogue; money symbols; intervals  | mm/cm; kg/g; degrees Celsius; l/ml; minutes; record                               | perimeter; Roman numerals; estimate; morning; afternoon; a.m./p.m.   |
| <b>Geometry</b>    | NC Year 1 reference | sides; half; equal; shape; 2-D; 3-D                                  | cuboid; pyramid; sphere; clockwise; quarter turn; three-quarter turn              | properties; edges; vertices; faces; line of symmetry; anti-clockwise |
| <b>Geometry</b>    | NC Year 3 reference | properties; edges; vertices; faces; line of symmetry; anti-clockwise | orientation; angles; right angle; perpendicular; parallel; horizontal             | quadrilateral; acute; obtuse; quadrant; translation; scale           |

**The movement of vocabulary between columns is intentional.** For example, *multiples* is Step-On vocabulary within the NC Year 1 Number and Place Value reference material but becomes Anchor vocabulary within the NC Year 3 reference material. Similarly, *properties*, *edges*, *vertices*, *faces*, *line of symmetry* and *anti-clockwise* move from Step-On vocabulary in the NC Year 1 Geometry reference material to Anchor vocabulary at the NC Year 3 reference stage. This reflects the curriculum model: previously introduced vocabulary is retrieved and secured as prerequisite knowledge before pupils encounter increasingly complex mathematical language.

## Mathematical communication

Pupils are supported to show mathematical understanding through their most effective communication method. This may include spoken language, symbols, AAC, objects, images, practical demonstration, written recording or digital technology. The mathematical standard remains clear while the method of access and response is adapted.

Teachers explicitly model precise mathematical vocabulary and representations. Pupils are given repeated opportunities to retrieve vocabulary, use it in context, compare examples and non-examples, explain choices and apply the same idea in new situations.

## Preparation for Adulthood through Maths

Maths directly supports Preparation for Adulthood because pupils need number, money, measure, time, data and problem-solving to make choices and participate as independently as possible in adult life. Functional contexts strengthen - but do not replace - the underlying mathematical learning.

| PfA outcome         | Maths develops                                                                                                                         | Expected applications                                                                                                                                                               |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Independent Living  | Money, budgeting, value, change, time, timetables, measure, capacity, weight, temperature, comparison and estimation.                  | Shopping and comparing prices; planning a simple budget; reading clocks/timetables; weighing and measuring in food preparation; estimating quantities; managing household routines. |
| Employment          | Accuracy, number, measure, data handling, time, checking, estimation, problem-solving, use of technology and interpreting information. | Stock counts; cash handling; spreadsheets/data entry; measuring materials; checking quantities; reading schedules; calculating totals; interpreting charts; enterprise tasks.       |
| Health              | Time, measure, data, scale, comparison and interpretation.                                                                             | Reading temperature and scales; interpreting simple health/fitness data; understanding duration, sequence and routines; comparing quantities in everyday health contexts.           |
| Community Inclusion | Money, transactions, time, travel, position/direction, data and practical problem-solving.                                             | Using shops and services; paying and receiving change; reading travel information; judging time/distance; using maps/position language; participating in community activities.      |

## Careers in Maths

Careers education helps pupils recognise that mathematics is used across practical, administrative, financial, construction, retail and digital roles. The school's Maths careers material identifies examples including:

| Example role                  | Mathematical connection                                           |
|-------------------------------|-------------------------------------------------------------------|
| Game Tester / Activity Helper | Using Maths in puzzles, board games or sports scoring.            |
| Cashier / Shop Assistant      | Handling money, giving change and completing simple calculations. |
| Accounts Clerk Assistant      | Filing invoices, checking numbers and basic bookkeeping.          |
| Bank or Post Office Assistant | Supporting customers with simple transactions.                    |
| Construction Support Worker   | Measuring, counting materials and supporting building projects.   |
| Stock Control Assistant       | Counting items, checking deliveries and tracking supplies.        |
| Data Entry Worker             | Entering numbers into spreadsheets or databases.                  |

## SMSC and Fundamental British Values through Maths

SMSC and Fundamental British Values are developed through mathematical curiosity, accurate reasoning, responsible use of information, collaboration, independence and functional decision-making. These opportunities are strongest when they remain rooted in genuine mathematical learning.

| SMSC / FBV area            | What Maths develops                                                                        | Expected activities and applications                                                                                                             |
|----------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Spiritual                  | Curiosity, pattern, structure, wonder and confidence in discovering relationships.         | Explore patterns; make predictions; investigate multiple solutions; reflect on surprising results or elegant relationships.                      |
| Moral                      | Accuracy, fairness, responsible financial choices and honest use of data.                  | Check calculations; discuss fair sharing; interpret graphs responsibly; consider consequences of inaccurate measurement or financial decisions.  |
| Social                     | Communication, collaboration, listening, turn-taking and shared problem-solving.           | Compare methods; solve problems together; explain reasoning; collect class data; take roles in practical investigations.                         |
| Cultural                   | Awareness that mathematics is used across cultures, communities, trades and everyday life. | Explore number systems, measures, patterns, money and mathematical applications in varied cultural and community contexts.                       |
| Democracy                  | Pupil voice, shared decision-making and interpreting collective information.               | Use surveys, votes, tables and charts; compare preferences; justify choices; listen to alternative strategies.                                   |
| Rule of Law                | Understanding conventions, agreed systems and why accuracy/rules matter.                   | Follow mathematical conventions; use standard units; follow sequences and procedures; understand rules within money and transactions.            |
| Individual Liberty         | Independent choice of strategy and increasing financial/mathematical agency.               | Choose appropriate resources or methods; make informed comparisons; solve practical problems; use Maths to support independent decisions.        |
| Mutual Respect & Tolerance | Respect for different approaches, communication methods and viewpoints.                    | Listen to alternative methods; give constructive feedback; work collaboratively; recognise that a problem may have more than one valid strategy. |

## Accreditation and progression

Accreditation is selected where it is appropriate to the pupil's mathematical attainment, next steps and intended destination. The qualification route follows from mathematical readiness; it does not determine the curriculum prematurely. Pupils continue to secure underlying mathematical knowledge and functional application alongside qualification requirements.

| Progression point                   | Expected mathematical development                                                                                                                                        | Possible route / evidence                                                                                                                         |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Pre-Entry / Launching               | Develops the prerequisite mathematics needed for subject-specific study: counting, cardinality, composition, comparison, measure, shape, pattern and position/direction. | Launching into Maths / school curriculum evidence.                                                                                                |
| Entry Level 1-2: Core routes        | Applies whole number, calculation, money, time, measure, shape and data skills with increasing independence.                                                             | Ascentis Maths (Stepping Stones to Functional Skills) Entry 1 & 2; AQA Entry Level 1 & 2; OCR Life and Living Skills Entry 1 & 2, as appropriate. |
| Entry Level / GCSE: Extended routes | Follows a specification matched to attainment, with prerequisite knowledge revisited where required.                                                                     | Entry Level or GCSE route, following the selected specification.                                                                                  |
| Beyond qualification requirements   | Applies mathematics functionally and across subjects, community contexts, Preparation for Adulthood and vocational experiences.                                          | Work samples, functional application, qualification evidence and destination-focused curriculum evidence.                                         |

## Cross-curricular application

Maths is applied across science, computing, Design Technology/STEM, food and nutrition, PE, Preparation for Adulthood, careers and community learning. These applications are used to strengthen fluency and generalisation, but teachers remain clear about the mathematical knowledge being taught and assessed.

| Curriculum context                    | Mathematical application                                                                           |
|---------------------------------------|----------------------------------------------------------------------------------------------------|
| Science                               | Measure, scale, data, graphs, averages, ratio and interpreting evidence.                           |
| Computing                             | Data, logic, sequencing, coordinates, patterns, spreadsheets and numerical representation.         |
| Design Technology / STEM              | Measure, geometry, scale, ratio, accuracy, calculation, data and problem-solving.                  |
| Food and Nutrition                    | Weight, capacity, time, temperature, ratio, proportion, money and scaling recipes.                 |
| PE                                    | Time, distance, scoring, data, averages, comparison and measures.                                  |
| Preparation for Adulthood / community | Money, budgeting, time, travel, shopping, transactions, estimation and functional problem-solving. |