

# Mathematics Policy

St Joseph and St Bede RC Primary  
School



With **Christ** at the  
centre, our *Dream*  
is for **greatness** in our  
learning, to  
*Believe* in our  
**unique talents**, to be  
Guardians of  
**life & creation**  
and to *Achieve*  
**a better world**, by  
**living life to the full.**

Approved by: Mrs Myerscough and Governing  
Body

Date: May 2021

Last reviewed on: October 2021

Next review due by: May 2022

## Intent

At St. Joseph and St. Bede (SJSB) we are aware of the importance of Maths in so much of our lives and the vital role it plays in helping children to learn to be independent and skilled adults. We endeavour to ensure that our children develop a positive and enthusiastic attitude towards Mathematics that will stay with them through life. Maths is taught in accordance with the National Curriculum while taking account of the specific needs and learning styles of the children in our school. Combined with our Calculation Policies, this ensures continuity, progression and high expectations in Mathematics in all areas, including fluency, reasoning and problem solving. At SJSB we strive for children to be fluent in the fundamentals of mathematics, which will enable them to:

- reason mathematically
- follow lines of enquiry
- solve problems through application of their knowledge across the mathematics and wider, curriculum.

## Intent

### Curriculum Aims

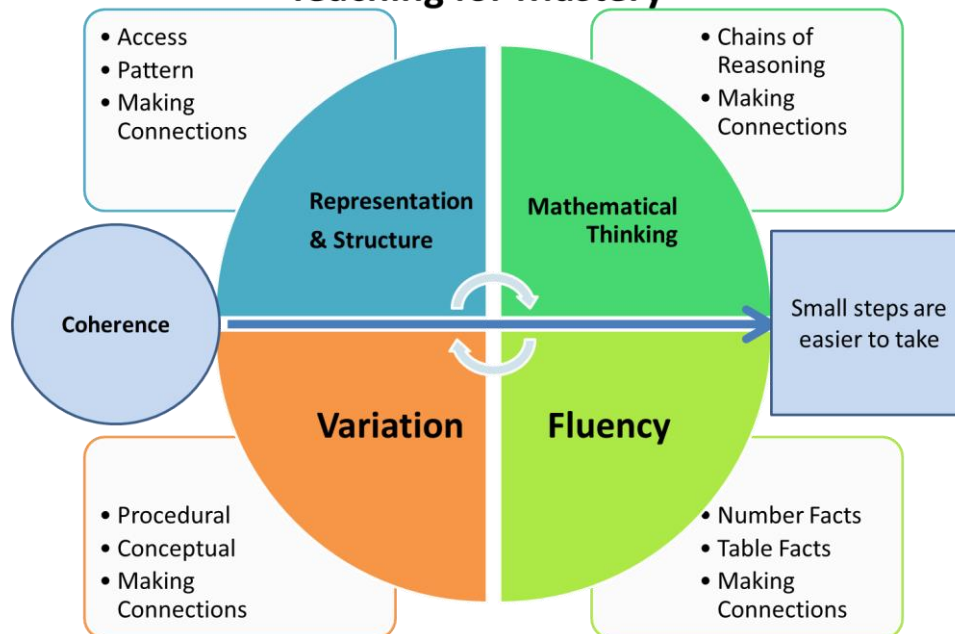
- To develop confidence in mathematical knowledge and concepts through the explicit teaching and progression in factual, procedural and conceptual knowledge.
- To develop our children's ability to solve problems, to reason, to think logically and to work systematically and accurately, tackling increasingly complex problems over time
- To develop the ability to reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.
- To enable a confident, use the 'language' of maths through explicit teaching of 'sticky vocabulary.'
- To develop the ability to use and apply mathematics across the curriculum and in real life with conceptual confidence. To develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- To ensure children make good progress in mathematics at each key stage
- To increase confidence and ability in preparation for transition to KS3 and beyond.

## Implementation

### Principles of teaching and learning

At SJSB we use a variety of teaching and learning styles in Mathematics lessons. Our school follows the National Curriculum 2014 objectives, which are supported by our use of the White Rose Hub Mastery curriculum. We follow the White Rose Hub Scheme of Learning and enrich this scheme with NRICH problem solving resources, Tara Loughran (Mathematics Consultant) resources and Deepening Understanding Reasoning activities, among other high-quality resources. We encourage our teachers to be creative and use further resources to enhance their teaching and provide a range of question styles. Through the use of our Calculation Policy, we have developed a common vocabulary of mathematical terms and methods of calculation that are used across the school. Our mathematics progression of skills and knowledge allows for the development of factual knowledge, procedural knowledge and deeper conceptual understanding.

## Teaching for Mastery



Our teaching in mathematics aims to implement the following:

- A mastery approach, that builds coherence, allows children to make connections between topic and develops mathematical thinking (see model above.)
- A deeper mathematical language through opportunities to question and explain their activities and in discussion with the teacher, support staff and each other.
- Build children's confidence and self-esteem through varied fluency activities and the chance to rehearse and secure key skills
- Develop independence, especially when problem solving and reasoning through a shared approach to reasoning using Tara Loughran resources consistently throughout school
- Use practical approaches to mathematics (equipment, models and images)
- Challenge for children of all abilities
- Encourage children to enjoy mathematics through engaging mathematics lesson and maths opportunities across the curriculum
- Encourage children to be resilient learners who can learn from their mistakes through hot-spotting and opportunities for self-reflection and fix-it time
- Allow children to ask questions as well as answer them through peer talk and a range of Kagan strategies in class

To provide adequate time for developing mathematics, Maths is taught daily and discretely. However, the application of skills is linked across the curriculum where appropriate.

In order to ensure our curriculum is challenging we aim to provide opportunities for our pupils to achieve mastery level in Maths. This will be achieved by children demonstrating they have developed fluency, reasoning and problem-solving skills. Currently, we are following the White Rose Hub long term plan for progression. We plan using the White Rose Hub Curriculum, Tara Loughran materials, Deepening Understanding reasoning resources, and NRICH. These can be found on our staff shared area and are accessible by all staff. Class teachers must aim to incorporate these tasks into their planning alongside daily tasks to develop the children's reasoning skills. Maths language for reasoning is developed through our Maths Reasoning Language and is modelled by all staff, and promoted through planned

opportunities in the maths lessons as well as on display in our coordinated and consistent classroom 'working walls'.

### **Planning Mathematics**

Staff use long and medium term planning to ensure coverage of all areas of the National Curriculum. Weekly plans will list the specific learning challenges for each week and give details of how the lessons are to be taught. Staff use PowerPoint for planning, to ensure there are key visuals for the children in every lesson (notes about stretch, differentiation and specific support for SEND pupils are included in the notes section of the PowerPoints.) Within the daily mathematics lesson, teachers not only provide activities to support children who find mathematics difficult but also activities that provide appropriate challenges for children who are high achievers in mathematics. Each teacher must ensure they share these plans with other members of staff who teach in their class as well as taking time to annotate according to the success of the lesson.

Early Years foundation stage - There are **six key areas of early mathematics learning** according to the National Centre for Excellence in Mathematics (NCETM), which collectively provide a platform for everything children will encounter as they progress through their maths learning at primary school, and beyond. These six areas, covered by children in our Early Years Foundation Stage are:-

- **Cardinality and Counting**
- **Comparison**
- **Composition**
- **Pattern**
- **Shape and Space**
- **Measures.**

The level of development children should be expected to have attained by the end of the EYFS is defined by the early learning goals (ELGs). In Number, children at the expected level of development will: - Have a deep understanding of number to 10, including the composition of each number; Subitise (recognise quantities without counting) up to 5; Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts. When working with numerical patterns, children at the expected level of development will: - Verbally count beyond 20, recognising the pattern of the counting system; Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity; Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

### **Times Tables**

Times Tables are at the heart of mental arithmetic, which in itself helps form the basis of a child's understanding and ability when working with number. Once the children have learnt their times tables by heart, they are then able to work far more confidently- and efficiently- through a wide range of more advanced calculations. In order to achieve this, counting in multiples forms part of our daily maths lessons. Times tables tests are carried out in years 3, 4, 5 and 6. These can take the place of virtual tests, using online platforms such as TT Rockstars, or paper-based tests using the TT Rockstars base line assessments. Differentiated tests can be given to the children who will have 10 minutes to complete the test. Staff may wish to supplement their times table teaching with use of other resources that support the children in developing fluency. Class teachers complete a baseline times tables check at the start of each term, and follow this up with a 'follow up check' in week 11 of each term. Results are colour coded onto

our school tracking spreadsheet, so that progress in tables can be closely monitored. School subscribes to TTRockstars and the children have access to this in school, and have log ins to use at home. Regular opportunities to practise their tables using TTRockstars are provided in school. Children take great pride in improving their time and their accuracy. In Key stage 2, there is a weekly TT Rockstar assembly, where children battle face to face to become Rocker of the Week. We use weekly celebration assemblies to identify any star mathematicians.

### **Homework**

It is our school policy to provide parents and carers with opportunities to work with their children at home. These activities are valuable in promoting children's learning in mathematics. TTRockstars log ins are shared with parents in their child's planner. Parents are also kept up-to-date with mathematical methods and calculation strategies via our Key Stage Newsletters, sent home each half term. There is also a Mathematics newsletter that is sent out each half term, that provides an insight into calculation methods taught in school and shares opportunities for families to work together on maths problems and puzzles.

Children are encouraged to complete assigned homework at home. Support is given in class for any children unable to complete work at home. As well as TT Rockstars, children will be provided with mathematics homework via our Seesaw platform, to access and practise at home. Teachers can mark this work online and give instant feedback and support. In preparation for End of Key Stage 2 assessments, children in Year 6 will be given sample materials to support their fluency, reasoning and problem solving.

## **Impact**

### **Assessment, Recording and Reporting**

Through various assessment methods and practices we ensure that our pupils are making appropriate progress and that the activities they take part in are suitably matched to their ability and level of development.

- **Formative Assessment** (AfL)

Assessment is an integral and continuous part of the teaching and learning process and much of it is done informally as part of each teacher's day to day work. This is carried out using the following strategies; effective questioning, clearly differentiated learning challenges, the use of steps for success, verbal feedback, whole class feedback and instant marking. Any feedback given during lesson should be written in purple pen, after the lesson in black pen. Pupils are encouraged to self and peer assess throughout lessons. Pupils must RAG their learning at the end of each lesson and respond to marking (Further Work) at the start of each new lesson in green pen. Hotspotting should take place regularly to ensure any misconceptions found within the lesson or through marking are addressed. Targeted pupils will receive regular hotspotting as part of quality first teaching and classroom practice. Findings from these types of assessment are used to inform future planning teacher assessment.

- **Summative Assessment** – (evaluating children's learning)

More formal methods are used to determine the levels of achievement and progress of pupils. These take place during Assessment Weeks in Autumn Term 1 and Summer Term 1. We use NFER assessment tests as a way of recording children's progress. These follow the format of a Problem Solving and Reasoning and Mental Arithmetic test for each year group. Data from these tests can be entered onto a spreadsheet in order to update RM Integrus, showing how each child is progressing through a given stage and identify any gaps in learning. An age-related score is given, which is scaled and used

comparatively. Teachers will analyse the test data to inform future teaching and personalised learning for their children.

Summative data is inputted onto RM Integrus at two annual data drops. All of this information is used to inform parents of their child's progress during Parents' Evenings in the Autumn and Spring Terms and in the end of year report sent out in the Summer Term. In addition to two summative data drops a year, staff also use the Spring term to complete joint mathematics moderation practices, and then update RM Integrus accordingly, using up-to-date teacher assessment.

### **Monitoring**

Regular 'book looks' take place in staff meetings to encourage the sharing of good practice. We also encourage all staff in school to look at good practice in maths books, with 'book looks' on Friday afternoons. Members of the Senior Leadership Team will also regularly look at books to assess the children's progress and identify good practice. This forms part of the leadership cycle planned for school leaders. Moderation meetings will be held both within school and when possible with other schools in our cluster to work towards consistency of assessment without levels. Pupil progress meetings take place in key stages, to share pupil data and progress and ensure joint accountability and consistency in teaching and assessment approached. These occur termly.

### **Resources**

Most classrooms will have their own supply of the most commonly used resources. Any additional equipment can be found in the Maths storage spaces in the infant building. Staff are expected to inform the subject coordinator of any items required to deliver the curriculum effectively.

In order to provide visual clues for children in each class, a Maths Working Wall, is expected. These working walls have been updated to ensure greater consistency across school. This should include methods from our Calculation Policy that the children are currently working on. All maths resources should be clearly labelled and easily accessible for children. Each classroom in school has a set of Numicon, which should be used to support children who are less confident in mathematics and in need of visual representations and tactile equipment.

Our Maths exercise books are blue (children in years 5 and 6 will have 5 mm square books). Children are expected to maintain precise presentation in their Maths Books at all times, with drawn margins and the short date underlined (from year 3 onwards.) All work in Maths books is completed in pencil, with further work or corrections by the children completed in green pen. This shows that the children have reflected on their misconceptions and had some 'fix it' time.

### **Staff Development**

The school considers staff development and training to be very important. CPD regularly takes place for all members of staff, whenever possible staff are encouraged to share knowledge with other staff members. INSET and staff meetings are used to deliver training which will benefit the whole school. All staff have been trained in the Tara Loughran materials, and it is essential that any new members of staff are enrolled on this CPD course to ensure consistent practice.

The Mathematics coordinator attends regular training from maths consultant Tara Loughran, who has also been involved with providing CPD and feedback in school. Regular Ofsted updates are attended by the subject lead, provided by ECM Consultants.

All our Teachers, TAs and SSAs in school are in their own Cp-coaching Triad. This enables regular CPD between staff, with different development focusses each half term, linked to the school improvement plan. Staff observe each other in key curriculum areas, such as maths, and feedback and coach each other, developing best practice and consistent approaches to teaching and learning across school. We also use assembly time each week to deliver training for TAs and SSAs to enable and support ongoing, high quality CPD.

### **Special Educational Needs and Disabilities**

Children with SEN are taught within the daily mathematics lesson and are encouraged to take part when and where possible with appropriate differentiation and support. Where applicable children's provision maps should incorporate suitable targets from the National Curriculum and teachers should keep this in mind when planning work.

When additional support staff are available to support groups or individual children they work collaboratively with the class teacher. Evidence of specific intervention is tracked using Seesaw, where teacher's can instantly see the work completed with support staff and support staff can give instant feedback to the teacher. Precision teaching and additional mathematics interventions are available in school, and should be used to enhance progress for SEND pupils where appropriate.

Interventions are planned into the children's mathematics to ensure that they are given all the opportunities to succeed.

### **Equal Opportunities**

We incorporate mathematics into a wide range of cross-curricular subjects and seek to take advantage of multi-cultural aspects of mathematics.

In the daily mathematics lesson we support children with English as an additional language in a variety of ways.

e.g. repeating instructions, speaking clearly, emphasising key words, using picture cues, playing mathematical games, encouraging children to join in *counting, chanting, finger games, rhymes* etc. ....

### **Sharing good practice**

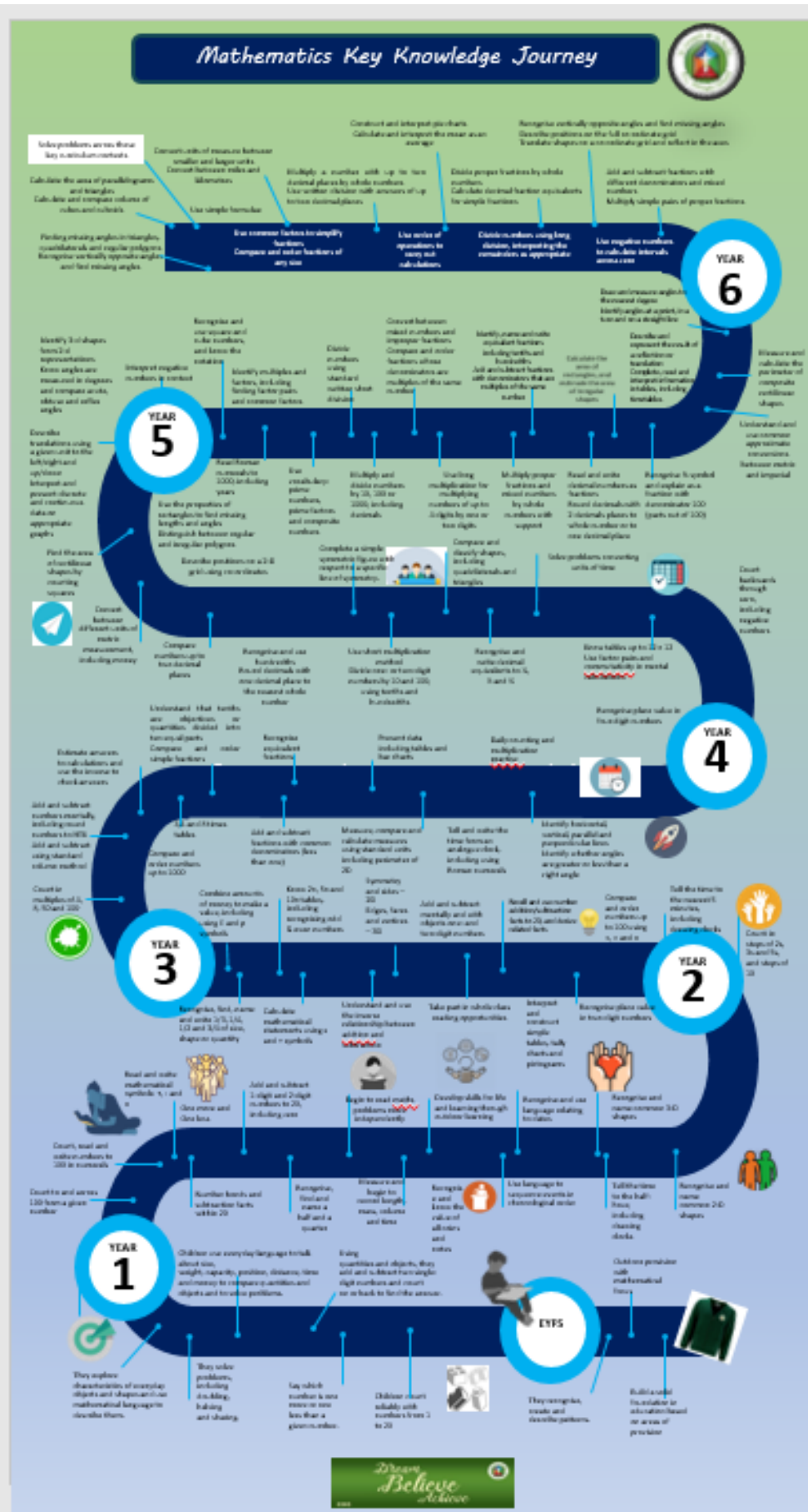
Each year, our subject leader reports, including whole school attainment and progress data, evaluations and up-to-date action plans are shared with whole staff and governors to ensure that as a school we are working to provide excellent learning opportunities for all the children we teach, allowing them to 'dream, believe and achieve'.

**Policy written by: Mrs H Daly**








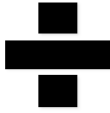
## Appendix 1





## Appendix 2

# Mathematical Vocabulary

multiply times product lots of groups of multiplied by multiple of		add plus total sum more than increase altogether score double		subtract minus half halve less than fewer than take away decrease difference between		divide halve share division factor remainder equal groups of divided by divided into shared equally	
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## Types of Knowledge and Question Examples

Questions that use procedural knowledge	Questions that use conceptual knowledge
Measure the perimeter of the room	Estimate the perimeter of the room. Justify your estimate.
If you sleep for 7.5 hours each day, what percentage of the day is spent sleeping?	Is it reasonable to state that many people sleep for 30% of the day? Why or why not?
Find the sum of one-third, one-quarter and one-fifth	Without adding, is the sum of one-quarter, one-third and one-fifth bigger or smaller than one? How do you know?
Match the object to its associated volume formula	Explain how to determine if you have matched an object to its correct volume formula.
Multiply 24 by 8	In your head, multiply 24 by 8. Explain your method. Try to find another method that works.
Find an equation to solve this problem	Find a problem that can be solved using this equation. How can you tell if you are right?

Number – Number and place value					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Count</b>	Count	Count	Count	Count	Count
<b>Count on</b>	<b>Count on</b>	Count on	Count on	Count on	Count on
<b>Count back</b>	Count back	Count back	Count back	Count back	Count back
	<b>Count in steps</b>	Count in steps	Count in steps	Count in steps	Count in steps
		<b>Count in multiples</b>	Count in multiples	Count in multiples	Count in multiples
			<b>Count backwards</b>	Count backwards	Count backwards
			<b>Negative numbers</b>	Negative numbers	Negative numbers
					<b>Calculate intervals</b>
					<b>Whole number</b>
<b>Forwards</b>	Forwards	Forwards	Forwards	Forwards	Forwards
<b>Backwards</b>	Backwards	Backwards	Backwards	Backwards	Backwards
<b>Numerals</b>	Numerals	Numerals	Numerals	Numerals	Numerals
<b>Multiples</b>	Multiples	Multiples	Multiples	Multiples	Multiples
<b>One more</b>	One more	One more	One more	One more	One more
<b>One less</b>	One less	One less	One less	One less	One less
		<b>10 or 100 more</b>	10 or 100 more	10 or 100 more	10 or 100 more
		<b>10 or 100 less</b>	10 or 100 less	10 or 100 less	10 or 100 less
			<b>1000 more</b>	1000 more	1000 more
			<b>1000 less</b>	1000 less	1000 less
<b>Equal to</b>	Equal to	Equal to	Equal to	Equal to	Equal to
<b>More than</b>	More than	More than	More than	More than	More than
<b>Less than (fewer)</b>	Less than (fewer)	Less than (fewer)	Less than (fewer)	Less than (fewer)	Less than (fewer)
	<b>Place value</b>	Place value	Place value	Place value	Place value
	<b>Digit</b>	Digit	Digit	Digit	Digit
	<b>Two digit</b>	Two digit	Two digit	Two digit	Two digit
		<b>Three digit</b>	Three digit	Three digit	Three digit
			<b>Four digit</b>	Four digit	Four digit
	<b>Estimate</b>	Estimate	Estimate	Estimate	Estimate
	<b>Compare</b>	Compare	Compare	Compare	Compare
			<b>Round</b>	Round	Round
			<b>Roman numerals</b>	Roman numerals	Roman numerals
				<b>Powers of</b>	Powers of
			<b>Negative number</b>	Negative number	Negative number

Number – addition and subtraction					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6

<b>Add</b>	Add	Add	Add	Add	Add
<b>Subtract</b>	Subtract	Subtract	Subtract	Subtract	Subtract
<b>Minus</b>	Minus	Minus	Minus	Minus	Minus
<b>Take away</b>	Take away	Take away	Take away	Take away	Take away
	<b>Difference</b>	Difference	Difference	Difference	Difference
<b>Equals</b>	Equals	Equals	Equals	Equals	Equals
<b>Altogether</b>	Altogether	Altogether	Altogether	Altogether	Altogether
<b>Total</b>	Total	Total	Total	Total	Total
<b>Number bonds</b>	Number bonds	Number bonds	Number bonds	Number bonds	Number bonds
	<b>Facts</b>	Facts	Facts	Facts	Facts
<b>Problems</b>	Problems	Problems	Problems	Problems	Problems
<b>Missing number problems</b>	Missing number problems	Missing number problems	Missing number problems	Missing number problems	Missing number problems
	<b>2 digit number</b>	2 digit number	2 digit number	2 digit number	2 digit number
		<b>3 digit number</b>	3 digit number	3 digit number	3 digit number
			<b>4 digit number</b>	4 digit number	4 digit number
	<b>Commutative</b>	Commutative	Commutative	Commutative	Commutative
	<b>Inverse</b>	Inverse	Inverse	Inverse	Inverse
		<b>Columnar addition</b>	Columnar addition	Columnar addition	Columnar addition
		<b>Columnar subtraction</b>	Columnar subtraction	Columnar subtraction	Columnar subtraction
		<b>Estimate</b>	Estimate	Estimate	Estimate
			<b>Operations</b>	Operations	Operations
			<b>Methods</b>	Methods	Methods
				<b>Rounding</b>	Rounding
					<b>Accuracy</b>

Number – multiplication and division					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Multiplication/Multiply</b>	Multiplication/Multiply	Multiplication/Multiply	Multiplication/Multiply	Multiplication/Multiply	Multiplication/Multiply
<b>Times</b>	Times	Times	Times	Times	Times
<b>Division/Divide</b>	Division/Divide	Division/Divide	Division/Divide	Division/Divide	Division/Divide
<b>Evenly/equal groups</b>	Evenly/equal groups	Evenly/equal groups	Evenly/equal groups	Evenly/equal groups	Evenly/equal groups
<b>Arrays</b>	Arrays	Arrays	Arrays	Arrays	Arrays
	<b>Multiplication tables</b>	Multiplication tables	Multiplication tables	Multiplication tables	Multiplication tables
	<b>Odd numbers</b>	Odd numbers	Odd numbers	Odd numbers	Odd numbers
	<b>Even numbers</b>	Even numbers	Even numbers	Even numbers	Even numbers
	<b>Commutative</b>	Commutative	Commutative	Commutative	Commutative
	<b>Repeated addition</b>	Repeated addition	Repeated addition	Repeated addition	Repeated addition
		<b>Mathematical statements</b>	Mathematical statements	Mathematical statements	Mathematical statements
		<b>Missing number problems</b>	Missing number problems	Missing number problems	Missing number problems
		<b>Integer scaling problems</b>	Integer scaling problems	Integer scaling problems	Integer scaling problems
		<b>Correspondence problems</b>	Correspondence problems	Correspondence problems	Correspondence problems
		<b>n objects</b>	n objects	n objects	n objects
			<b>Place value</b>	Place value	Place value
			<b>Derived facts</b>	Derived facts	Derived facts
			<b>Factor pairs</b>	Factor pairs	Factor pairs
			<b>Formal written layout</b>	Formal written layout	Formal written layout
			<b>Distributive law</b>	Distributive law	Distributive law
				<b>Multiples</b>	Multiples
				<b>Factors</b>	Factors
				<b>Prime numbers</b>	Prime numbers
				<b>Short division remainder</b>	Short division remainder
				<b>Decimals</b>	Decimals

					<b>Multi digit numbers</b>
					<b>Long multiplication</b>
					<b>Long division</b>

<b>Number – Fractions, decimals and percentages</b>					
<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>
<b>Whole</b>	Whole	Whole	Whole	Whole	Whole
<b>Half</b>	Half	Half	Half	Half	Half
<b>Quarter</b>	Quarter	Quarter	Quarter	Quarter	Quarter
	<b>Three quarters</b>	Three quarters	Three quarters	Three quarters	Three quarters
	<b>Third</b>	Third	Third	Third	Third
				<b>Fifth</b>	Fifth
<b>Equal parts</b>	Equal parts	Equal parts	Equal parts	Equal parts	Equal parts
	<b>Equivalence</b>	Equivalence	Equivalence	Equivalence	Equivalence
		<b>Decimal</b>	Decimal	Decimal	Decimal
	<b>Decimal place</b>	Decimal place	Decimal place	Decimal place	Decimal place
	<b>Decimal point</b>	Decimal point	Decimal point	Decimal point	Decimal point
			<b>Decimal equivalence</b>	Decimal equivalence	Decimal equivalence
		<b>Tenths</b>	Tenths	Tenths	Tenths
			<b>Hundredths</b>	Hundredths	Hundredths
				<b>Thousandths</b>	Thousandths
		<b>Unit fractions</b>	Unit fractions	Unit fractions	Unit fractions
		<b>Non unit fractions</b>	Non unit fractions	Non unit fractions	Non unit fractions
		<b>Denominator</b>	Denominator	Denominator	Denominator
				<b>Common denominator</b>	Common denominator
		<b>Numerator</b>	Numerator	Numerator	Numerator
		<b>Equivalent fraction</b>	Equivalent fraction	Equivalent fraction	Equivalent fraction
					<b>Simplest form</b>
				<b>Common factor</b>	Common factor
				<b>Common multiple</b>	Common multiple
				<b>Convert</b>	Convert
				<b>Proper</b>	Proper

				<b>fraction</b>	fraction
				<b>Mixed numbers</b>	Mixed numbers
				<b>Per cent %</b>	Per cent %
					<b>Factors</b>

Number – Ratio and proportion					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
					Relative size
					Missing values
					Integer multiplication
					Percentages
					Scale factor
					Unequal sharing and grouping
					Proportionality
					Comparison
					Ratio
					'per'
					'for every'
					Quantity
					Proportion

Number – Algebra					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
					Formula and formulae
					Linear number sequences
					Algebraically
					Equation
					Unknown
					Combinations
					Variables
					Rule
					Difference



Measurement (1)					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Measure</b>	Measure	Measure	Measure	Measure	Measure
	<b>Approximately</b>	Approximately	Approximately	Approximately	Approximately
	<b>Standard units</b>	Standard units	Standard units	Standard units	Standard units
	<b>Estimate</b>	Estimate	Estimate	Estimate	Estimate
	<b>Measure</b>	Measure	Measure	Measure	Measure
	<b>Compare</b>	Compare	Compare	Compare	Compare
	<b>Order</b>	Order	Order	Order	Order
	<b>Record results</b>	Record results	Record results	Record results	Record results
				<b>Decimal notation</b>	Decimal notation
				<b>Scaling</b>	Scaling
				<b>Metric units</b>	Metric units
				<b>Imperial units</b>	Imperial units
				<b>Inches</b>	Inches
				<b>Pounds</b>	Pounds
				<b>Pints</b>	Pints
					<b>Conversion</b>
<b>Length</b>	Length	Length	Length	Length	Length
	<b>Centimetre cm</b>	Centimetre cm	Centimetre cm	Centimetre cm	Centimetre cm
	<b>Metre m</b>	Metre m	Metre m	Metre m	Metre m
		<b>Millimetre mm</b>	Millimetre mm	Millimetre mm	Millimetre mm
		<b>Perimeter</b>	Perimeter	Perimeter	Perimeter
					<b>Miles</b>
					<b>Kilometre km</b>
			<b>Rectilinear figure</b>	Rectilinear figure	Rectilinear figure
			<b>Area</b>	Area	Area
				<b>Composite rectilinear shape</b>	Composite rectilinear shape
				<b>Irregular shapes</b>	Irregular shapes
				<b>Square centimetre cm<sup>2</sup></b>	Square centimetre
				<b>Square metre m<sup>2</sup></b>	Square metre
					<b>Formulae</b>
					<b>Parallelogram</b>
					<b>Triangles</b>

Measurement (2)					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Height</b>	Height	Height	Height	Height	Height
<b>Long(er)/Short(er)</b>	Long(er)/Short(er)	Long(er)/Short(er)	Long(er)/Short(er)	Long(er)/Short(er)	Long(er)/Short(er)
<b>Tall(er)/Short(er)</b>	Tall(er)/Short(er)	Tall(er)/Short(er)	Tall(er)/Short(er)	Tall(er)/Short(er)	Tall(er)/Short(er)
<b>Double/half</b>	Double/half	Double/half	Double/half	Double/half	Double/half
<b>Mass</b>	Mass	Mass	Mass	Mass	Mass
<b>Weight</b>	Weight	Weight	Weight	Weight	Weight
<b>Heavy/light</b>	Heavy/light	Heavy/light	Heavy/light	Heavy/light	Heavy/light
<b>Heavier than</b>	Heavier than	Heavier than	Heavier than	Heavier than	Heavier than
<b>Lighter than</b>	Lighter than	Lighter than	Lighter than	Lighter than	Lighter than
	<b>Kilogram kg</b>	Kilogram kg	Kilogram kg	Kilogram kg	Kilogram kg
	<b>Gram g</b>	Gram g	Gram g	Gram g	Gram g
<b>Capacity</b>	Capacity	Capacity	Capacity	Capacity	Capacity
<b>Volume</b>	Volume	Volume	Volume	Volume	Volume
<b>Full/empty</b>	Full/empty	Full/empty	Full/empty	Full/empty	Full/empty
<b>More than</b>	More than	More than	More than	More than	More than
<b>Less than</b>	Less than	Less than	Less than	Less than	Less than
<b>Half/full</b>	Half/full	Half/full	Half/full	Half/full	Half/full
	<b>Litre l</b>	Litre l	Litre l	Litre l	Litre l
	<b>Millilitre ml</b>	Millilitre ml	Millilitre ml	Millilitre ml	Millilitre ml
					<b>Cubic metre</b>
					<b>Cubic millimetre</b>
					<b>Cubic kilometre</b>
	<b>Temperature</b>	Temperature	Temperature	Temperature	Temperature
	<b>Celsius</b>	Celsius	Celsius	Celsius	Celsius

<b>Measurement (3)</b>					
<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Year 5</b>	<b>Year 6</b>
<b>Time</b>	Time	Time	Time	Time	Time
<b>Quicker</b>	Quicker	Quicker	Quicker	Quicker	Quicker
<b>Slower</b>	Slower	Slower	Slower	Slower	Slower
<b>Earlier</b>	Earlier	Earlier	Earlier	Earlier	Earlier
<b>Later</b>	Later	Later	Later	Later	Later
<b>Chronological order</b>	Chronological order	Chronological order	Chronological order	Chronological order	Chronological order
<b>Before</b>	Before	Before	Before	Before	Before
<b>After</b>	After	After	After	After	After
<b>First</b>	First	First	First	First	First
<b>Next</b>	Next	Next	Next	Next	Next
<b>Today</b>	Today	Today	Today	Today	Today
<b>Yesterday</b>	Yesterday	Yesterday	Yesterday	Yesterday	Yesterday
<b>Tomorrow</b>	Tomorrow	Tomorrow	Tomorrow	Tomorrow	Tomorrow
<b>Morning</b>	Morning	Morning	Morning	Morning	Morning
<b>Afternoon</b>	Afternoon	Afternoon	Afternoon	Afternoon	Afternoon
<b>Evening</b>	Evening	Evening	Evening	Evening	Evening
<b>Days of the week</b>	Days of the week	Days of the week	Days of the week	Days of the week	Days of the week
<b>Months of the year</b>	Months of the year	Months of the year	Months of the year	Months of the year	Months of the year
<b>Day</b>	Day	Day	Day	Day	Day
<b>Week</b>	Week	Week	Week	Week	Week
<b>Month</b>	Month	Month	Month	Month	Month
<b>Year o'clock</b>	Year o'clock	Year o'clock	Year o'clock	Year o'clock	Year o'clock
<b>Half past</b>	Half past	Half past	Half past	Half past	Half past
<b>Minute</b>	Minute	Minute	Minute	Minute	Minute

Measurement (4)					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<b>Intervals of time</b>	Intervals of time	Intervals of time	Intervals of time	Intervals of time
	<b>Quarter to/past</b>	Quarter to/past	Quarter to/past	Quarter to/past	Quarter to/past
		<b>Analogue clock</b>	Analogue clock	Analogue clock	Analogue clock
		<b>Roman numerals</b>	Roman numerals	Roman numerals	Roman numerals
		<b>12-hour clock</b>	12-hour clock	12-hour clock	12-hour clock
		<b>24-hour clock</b>	24-hour clock	24-hour clock	24-hour clock
		<b>a.m./p.m.</b>	a.m./p.m.	a.m./p.m.	a.m./p.m.
		<b>Noon</b>	Noon	Noon	Noon
		<b>Midnight</b>	Midnight	Midnight	Midnight
		<b>Leap year</b>	Leap year	Leap year	Leap year
		<b>Duration</b>	Duration	Duration	Duration
			<b>Digital</b>	Digital	Digital
			<b>Convert</b>	Convert	Convert
<b>Money</b>	Money	Money	Money	Money	Money
<b>Coins</b>	Coins	Coins	Coins	Coins	Coins
<b>Notes</b>	Notes	Notes	Notes	Notes	Notes
<b>Chronological order</b>	Chronological order	Chronological order	Chronological order	Chronological order	Chronological order
	<b>Pounds £</b>	Pounds £	Pounds £	Pounds £	Pounds £
	<b>Pence p</b>	Pence p	Pence p	Pence p	Pence p
	<b>Value</b>	Value	Value	Value	Value
	<b>Change</b>	Change	Change	Change	Change
	<b>Combinations</b>	Combinations	Combinations	Combinations	Combinations

Geometry – Properties of shape (1)					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>2-D shapes</b>	2-D shapes	2-D shapes	2-D shapes	2-D shapes	2-D shapes
<b>Rectangle</b>	Rectangle	Rectangle	Rectangle	Rectangle	Rectangle
<b>Square</b>	Square	Square	Square	Square	Square
<b>Circle</b>	Circle	Circle	Circle	Circle	Circle
<b>Triangle</b>	Triangle	Triangle	Triangle	Triangle	Triangle
	<b>Pentagon</b>	Pentagon	Pentagon	Pentagon	Pentagon
	<b>Hexagon</b>	Hexagon	Hexagon	Hexagon	Hexagon
	<b>Octagon</b>	Octagon	Octagon	Octagon	Octagon
					<b>Rhombus</b>
					<b>Parallelogram</b>
	<b>Sides</b>	Sides	Sides	Sides	Sides
	<b>Line of symmetry</b>	Line of symmetry	Line of symmetry	Line of symmetry	Line of symmetry
			<b>Geometric shapes</b>	Geometric shapes	Geometric shapes
			<b>Quadrilaterals</b>	Quadrilaterals	Quadrilaterals
			<b>Properties</b>	Properties	Properties
		<b>Orientation</b>	Orientation	Orientation	Orientation
<b>3-D shapes</b>	3-D shapes	3-D shapes	3-D shapes	3-D shapes	3-D shapes
<b>Cuboids cubes</b>	Cuboids cubes	Cuboids cubes	Cuboids cubes	Cuboids cubes	Cuboids cubes
<b>Pyramids</b>	Pyramids	Pyramids	Pyramids	Pyramids	Pyramids
<b>Spheres</b>	Spheres	Spheres	Spheres	Spheres	Spheres
	<b>Cylinder</b>	Cylinder	Cylinder	Cylinder	Cylinder
	<b>Square based pyramid</b>	Square based pyramid	Square based pyramid	Square based pyramid	Square based pyramid
	<b>Triangular based pyramid</b>	Triangular based pyramid	Triangular based pyramid	Triangular based pyramid	Triangular based pyramid
	<b>Edges</b>	Edges	Edges	Edges	Edges
	<b>Vertices/vertex</b>	Vertices/vertex	Vertices/vertex	Vertices/vertex	Vertices/vertex
	<b>Faces</b>	Faces	Faces	Faces	Faces

Geometry – Properties of shape (2)					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
					Radius
					Diameter
					Circumference
				Regular polygon	Regular polygon
				Irregular polygon	Irregular polygon
					Quadrilateral
					Dimensions
					Net

Geometry – Properties of shapes (2)					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		<b>Orientation</b>	Orientation	Orientation	Orientation
		<b>Angles</b>	Angles	Angles	Angles
			<b>Acute angle</b>	Acute angle	Acute angle
			<b>Obtuse angle</b>	Obtuse angle	Obtuse angle
				<b>Reflex angle</b>	Reflex angle
				<b>Degrees</b>	Degrees
				<b>One whole turn</b>	One whole turn
				<b>Angles on straight line</b>	Angles on straight line
					<b>Vertically opposite</b>
					<b>Missing angles</b>
		<b>Turn</b>	Turn	Turn	Turn
		<b>Right angle</b>	Right angle	Right angle	Right angle
		<b>Half turn</b>	Half turn	Half turn	Half turn
		<b>Three quarter turn</b>	Three quarter turn	Three quarter turn	Three quarter turn
		<b>Greater than right angle</b>	Greater than right angle	Greater than right angle	Greater than right angle
		<b>Less than right angle</b>	Less than right angle	Less than right angle	Less than right angle
		<b>Horizontal lines</b>	Horizontal lines	Horizontal lines	Horizontal lines
		<b>Vertical lines</b>	Vertical lines	Vertical lines	Vertical lines
		<b>Perpendicular lines</b>	Perpendicular lines	Perpendicular lines	Perpendicular lines
		<b>Parallel lines</b>	Parallel lines	Parallel lines	Parallel lines



Geometry – Position and direction					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Position</b>	Position	Position	Position	Position	Position
<b>Direction</b>	Direction	Direction	Direction	Direction	Direction
<b>Movement</b>	Movement	Movement	Movement	Movement	Movement
<b>Whole turn</b>	Whole turn	Whole turn	Whole turn	Whole turn	Whole turn
<b>Half turn</b>	Half turn	Half turn	Half turn	Half turn	Half turn
<b>Three quarter turn</b>	Three quarter turn	Three quarter turn	Three quarter turn	Three quarter turn	Three quarter turn
	<b>Straight line</b>	Straight line	Straight line	Straight line	Straight line
	<b>Rotation</b>	Rotation	Rotation	Rotation	Rotation
	<b>Order</b>	Order	Order	Order	Order
	<b>Arrange</b>	Arrange	Arrange	Arrange	Arrange
	<b>Patterns</b>	Patterns	Patterns	Patterns	Patterns
	<b>Sequences</b>	Sequences	Sequences	Sequences	Sequences
			<b>Co-ordinates</b>	Co-ordinates	Co-ordinates
			<b>First quadrant</b>	First quadrant	First quadrant
					<b>Four quadrants</b>
			<b>Translation</b>	Translation	Translation
			<b>Plot</b>	Plot	Plot
			<b>Polygon</b>	Polygon	Polygon
				<b>Reflection</b>	Reflection
					<b>Co-ordinate plane</b>
					<b>Axes</b>

Statistics					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<b>Pictograms</b>	Pictograms	Pictograms	Pictograms	Pictograms
	<b>Tally chart</b>	Tally chart	Tally chart	Tally chart	Tally chart
	<b>Block diagram</b>	Block diagram	Block diagram	Block diagram	Block diagram
	<b>Simple table</b>	Simple table	Simple table	Simple table	Simple table
		<b>Table</b>	Table	Table	Table
				<b>Timetable</b>	Timetable
		<b>Bar chart</b>	Bar chart	Bar chart	Bar chart
			<b>Time graph</b>	Time graph	Time graph
			<b>Discrete data</b>	Discrete data	Discrete data
			<b>Continuous data</b>	Continuous data	Continuous data
				<b>Line graph</b>	Line graph
					<b>Pie chart</b>
	<b>Category</b>	Category	Category	Category	Category
	<b>Sorting</b>	Sorting	Sorting	Sorting	Sorting
	<b>Totaling</b>	Totaling	Totaling	Totaling	Totaling
	<b>Comparing</b>	Comparing	Comparing	Comparing	Comparing
			<b>Comparison problem</b>	Comparison problem	Comparison problem
			<b>Sum problem</b>	Sum problem	Sum problem
			<b>Difference problem</b>	Difference problem	Difference problem
		<b>One step problem</b>	One step problem	One step problem	One step problem
		<b>Two step problem</b>	Two step problem	Two step problem	Two step problem
					<b>Calculate</b>
					<b>Interpret</b>
					<b>Mean as an average</b>

#### Additional documents:

Progression of skills in mathematics  
 Calculation Policy  
 EYFS progression in vocabulary  
 Progression Road Maps

