

# 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**

**Last reviewed on:**

May 2020

**Next review due by:**

May 2021

## **Rationale**

At St. Joseph and St. Bede 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. It will be 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 Policy, this ensures continuity, progression and high expectations for attainment in Mathematics.

## **Intent**

### **Curriculum Aims**

- To develop confidence in mathematical knowledge and concepts.
- To develop our children's ability to solve problems, to reason, to think logically and to work systematically and accurately.
- To enable a confident, use the 'language' of maths.
- To develop the ability to use and apply mathematics across the curriculum and in real life.
- 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 St Joseph and St Bede we use a variety of teaching learning styles in Mathematics lessons. Our school follows the National Curriculum 2014 objectives, which are supported by our use of White Rose Hub Mastery curriculum, NRICH problem solving resources, Tara Loughran (Mathematics Consultant) resources and Deepening Understanding Reasoning Activities. We encourage our teachers to be creative and use further resources to supplement their teaching. 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 teaching in mathematics aims to implement the following:

- A 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 hotspotting and opportunities for self-reflection

- 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. Pre-learning Maths Club takes place Mon-Thurs (8.20-8.50) as a supplement to the daily Maths lesson, from Year 2-6. Children are targeted for this club, however in Year 6, the club is open to all children.

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 using resources from The White Rose Hub, Tara Loughran, Deepening Understanding and NRICH. These can be found on Dropbox and accessed by all staff for their planning. 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 '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**, which collectively provide a platform for everything children will encounter as they progress through their maths learning at primary school, and beyond:

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

### **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 weekly times tables tests will be carried out in years 3, 4, 5 and 6. Differentiated tests can be given to the children who will have 10 minutes to complete the test. Any child scoring less than 50, will need to retake the test. Children achieving green (100-120) three times can move onto the next level. These results are recorded on our school spreadsheet, which then gives the percentage progress of each class. As well as this, children will

practise tables daily, as well as have regular opportunities for counting. 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.

## **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.

Children are encouraged to make use of homework club if no computer or lpad is available for them to use at home for TTRockstars. Homework club is available in the learning zone at Lunchtimes – daily. 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 termly Assessment Weeks. We use NFER termly 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 Integris, 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 three 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.

### **Monitoring**

Regular 'book looks' take place in staff meetings to encourage the sharing of good practice. Members of the Senior Leadership Team will also regularly look at books to assess the children's progress and identify good practice.

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.

### **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.

Our Maths exercise books are blue (children in years 5 and 6 will have 5 mm square books). Children are expected to maintain neat presentation in their Maths Books at all times, with neatly drawn margins and the short date underlined. All work in Maths books is completed in pencil, with further work or corrections by the children completed in green pen.

### **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.

### **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 teacher, allowing them to 'dream, believe and achieve'.



# Appendix 1



## Appendix 2

# Mathematical Vocabulary

<p>multiply times product lots of groups of multiplied by multiple of</p> <p><b>X</b></p>	<p>add plus total sum more than increase altogether score double</p> <p><b>+</b></p>	<p>subtract minus half halve less than fewer than take away decrease difference between</p> <p><b>-</b></p>	<p>divide halve share division factor remainder equal groups of divided by divided into shared equally</p> <p><b>÷</b></p>
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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>

**Number – Fractions, decimals and percentages**

<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>

<b>Measurement (2)</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>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

<b>Measurement (4)</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>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

<b>Geometry – Properties of shape (1)</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>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
					<b>Radius</b>
					<b>Diameter</b>
					<b>Circumference</b>
				<b>Regular polygon</b>	Regular polygon
				<b>Irregular polygon</b>	Irregular polygon
					<b>Quadrilateral</b>
					<b>Dimensions</b>
					<b>Net</b>

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

<b>Geometry – Position and direction</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>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 – teaching plan  
 – whole school  
 - Calculation Policy