





## WHERE STARS SHINE

## MATHEMATICS POLICY

Policy Lead Committee:

Local Academy Committee

In consultation with: Senior Leadership Team

Approved by:

Date: 2<sup>nd</sup> February 2023

Policy Date: Spring 2023

**Review Date: Spring 2025** 

**Review Frequency: 2 Years** 

Mathematics equips pupils with the uniquely powerful set of tools to understand and change the world. These tools include logical reasoning, problem solving skills and the ability to think in abstract ways. Mathematics is important in everyday life. It is integral to all aspects of life and with this in mind we must endeavour to ensure that children develop a positive and enthusiastic attitude towards mathematics that will stay with them.

In the early years, maths learning should be fun and part of everyday experiences. Independent, play-based experiences are at the heart of young children's mathematical development in the Early Years Foundation Stage at Severnbanks. We support children to become independent mathematical problem solvers, with the development of skills such as number recognition, ordering and calculation.

### UNITED NATIONS COVENTION ON THE RIGHTS of the CHILD

- > ARTICLE 1 Everyone under the age of 18 has all the rights in the Convention
- > ARTICLE 2 The Convention applies to every child whatever their ethnicity, gender, religion, abilities, whatever they think or say, no matter what type of family they come from.
- > ARTICLE 4 Governments must do all they can to fulfil the rights of the child.
- > ARTICLE 28 Education. The child has a right to education, and the State's duty is to ensure that primary education is free and compulsory, to encourage different forms of secondary education accessible to every child, to make higher education available to all on the basis of capacity and to ensure that school discipline is consistent with children's rights and dignity. The State shall engage in international cooperation to implement the right to education.
- > ARTICLE 29 Education shall aim to develop the child's personality, talents and mental and physical abilities to the fullest extent. Education shall prepare the child for an active adult life in a free society and shall foster in the child respect for his or her parents, for his or her own cultural identity, language and values, and for the cultural background and values of others.

### P4C

P4C is embedded in (*curriculum subject*) through the 4Cs (Creative thinking, Collaborative thinking, Caring thinking and Critical thinking). Pupils are given opportunities to use thinking skills that they have developed in P4C sessions to challenge what they already know and explore more complex ideas further

### **Children with Special Educational Needs**

At Severnbanks, we recognise that children with identified SEND needs may have strengths in

different areas, therefore we strive for them to be included in all areas of the curriculum. We also acknowledge that children with SEND may need differentiated work or further support appropriate to their specific needs and ability in order for them to take as full a part as possible in all school activities.

### 1. Rationale

- At Severnbanks Primary School we use the National Curriculum for Mathematics (2014) as the basis of our mathematics programme. We are committed to ensuring that all pupils achieve mastery in the key concepts of mathematics, appropriate for their age group, in order that they make genuine progress and avoid gaps in their understanding that provide barriers to learning as they move through education.
- Assessment for Learning, an emphasis on investigation, problem solving, the development of mathematical thinking and a rigorous approach to the development of teacher subject knowledge are therefore essential components of the Severnbanks Primary School's approach to this subject.
- The National Curriculum order for mathematics describes in detail what pupils must learn in each year group. Combined with Whiterose Maths Scheme resources and Calculation policy, this ensures continuity and progression and high expectations for attainment in mathematics.
- > We believe in providing appropriate support to overcome barriers to learning in mathematics where they exist.
- We promote a positive attitude towards mathematic. This is encouraged amongst all of our pupils in order to foster confidence and achievement in a skill that is essential in our society.

### 2. Aims

We aim to provide the pupils with a mathematics curriculum and high quality teaching to produce individuals who are numerate, creative, independent, inquisitive, enquiring and confident. We also aim to provide a stimulating environment and adequate resources so that pupils can develop their mathematical skills to the full.

Our pupils should:

- have a well-developed sense of the size of a number and where it fits into the number system
- know by heart number facts such as number bonds, multiplication tables, doubles and halves
- > use what they know by heart to figure out numbers mentally
- > calculate accurately and efficiently, both mentally and in writing
- drawing on a range of calculation strategies



- > recognise when it is appropriate to use a calculator and be able to do so effectively
- > make sense of number problems, including non-routine/real' problems and identify the operations needed to solve them
- > explain their methods and reasoning, using correct mathematical terms
- > judge whether their answers are reasonable and have strategies for checking
- > them where necessary
- > suggest suitable units for measuring and make sensible estimates of
- > measurements
- > explain and make predictions from the numbers in graphs, diagrams, charts and tables
- > develop spatial awareness and an understanding of the properties of 2d and 3d shapes

### 2.1 A mastery approach

Mastery is a journey and long-term goal, achieved through exploration, clarification, practice and application over time. At each stage of learning, pupils should be able to demonstrate a deep, conceptual understanding of the topic and be able to build on this over time.

This is not about just being able to memorise key facts and procedures, which tends to lead to superficial understanding that can easily be forgotten. Pupils should be able to select which mathematical approach is most effective in different scenarios.

The teaching of mathematics has been adopted, so we have high expectations of all our pupils. We endeavour to make the mathematics curriculum accessible to all pupils; moving them through the programme of study at broadly the same pace. All children need a deep understanding of the mathematics they are learning in order that future learning is built upon firm foundations. As we pursue this mastery approach we are moving away from separate intervention groups, instead introducing same day 'Immediate Intervention' sessions and additional practice to prevent children falling behind. No pupil should be left behind. The focus is keeping up over catching up.

Part of this approach includes adopting a 'growth mind set'. Children at Severnbanks are encouraged to believe they are all capable of learning and doing mathematics, given sufficient time, good teaching, appropriate resources and effort.

See footnote i) for the principles of a growth mind set.



### 2.2 Focus on depth

Deepen understanding before accelerating content coverage

All pupils benefit from deepening their conceptual understanding of mathematics, regardless of whether they've previously struggled or excelled. Pupils must be given time to fully understand, explore and apply ideas, rather than accelerate through new topics. This approach enables pupils to truly grasp a concept, and the challenge comes from investigating it in new, alternative and more complex ways.

### 2.3 Multiple representations for all; concrete, pictorial, abstract

Objects, pictures, words, numbers and symbols are everywhere. The mastery approach incorporates all of these to help pupils explore and demonstrate mathematical ideas, enrich their learning experience and deepen understanding. Together, these elements help cement knowledge so pupils truly understand what they've learnt.

All pupils, when introduced to a key new concept, should have the opportunity to build competency in this topic by taking this approach. Pupils are encouraged to physically represent mathematical concepts. Objects and pictures are used to demonstrate and visualise abstract ideas, alongside numbers and symbols.

**Concrete:** Students should have the opportunity to use concrete objects and manipulatives to help them understand and explain what they are doing.

**Pictorial**: Students should then build on this concrete approach by using pictorial representations. These representations can then be used to reason and solve problems.

**Abstract**: With the foundations firmly laid, students should be able to move to an abstract approach using numbers and key concepts with confidence



### 2.4 Fluency, reasoning and problem solving

Teaching supports the aims of the National Curriculum

### **Problem solving:**

Mathematical problem solving is interwoven throughout our approach. Pupils are encouraged to identify, understand and apply relevant mathematical principles and make connections between different ideas. This builds the skills needed to tackle new problems, rather than simply repeating routines without a secure understanding.

Mathematical concepts are explored in a variety of representations and problem-solving contexts to give pupils a richer and deeper learning experience. Pupils combine different concepts to solve complex problems, and apply knowledge to real-life situations.

### Reasoning:

The way pupils speak and write about mathematics transforms their learning. Mastery approaches use a carefully sequenced, structured approach to introduce and reinforce mathematical vocabulary. Pupils explain the mathematics in full sentences. They should be able to say not just what the answer is, but how they know its right. This is key to building mathematical language and reasoning skills.

### Fluency:

Pupils should be able to recall and apply mathematical knowledge both rapidly and accurately. However, it is important to stress that fluency often gets confused for just memorisation – it is far more than this. As well as fluency of facts and procedures, pupils should be able to move confidently between contexts and representations, recognise relationships and make connections in mathematics. This should help pupils develop a deep conceptual understanding of the subject. Frequent, carefully designed, intelligent practice will help them to achieve a high level of fluency.

Key facts such as multiplication tables and addition facts are practised regularly with the aim of automaticity to avoid cognitive overload in the working memory and enable pupils to focus on new concepts. Approaches such as Rapid Recall, NCETM Maths number facts, Times Tables, Doodle times tables and TT Rockstars are used to aid this.

### 2.5 Number at the heart and securing the fundamentals

A large proportion of time is spent reinforcing number to build competency and fluency. Number is usually at the heart of any primary mastery scheme of learning, with more time devoted to this than other areas of mathematics. It is important that pupils secure these key foundations of maths before being introduced to more difficult concepts. EYFS and KS1 follow the NCETM Mastering number programme.



### 3. Organisation of the teaching and learning Provision Planning

We believe that the key to success with all learners is quality first teaching (QFT – see footnote ii for details). This is promoted through on-going bespoke professional development from teachers and the high quality teachers' resources provided by the Whiterose programme. The school's planning consists of following the Whiterose planning. The plans can be annotated/commented on. Weekly timetables demonstrate the objectives being taught.

Objectives are taken from the relevant year band overview and medium term plans. These objectives enable progression in learning towards National Curriculum Age related Expectations. Detailed medium term plans are provided, along with guidance on calculations.

Mathematics in the Foundation Stage is a practical, activity-based subject both indoors and outdoors. Each lesson in every year group is focussed around the concrete (model) – pictorial (image) – abstract approach as children learn new concepts. Teachers skilfully highlight connections between mathematical topics and support the learning of mathematical vocabulary.

We recognise the importance of establishing a secure foundation in mental calculation and recall of number facts before standard written methods are introduced. We use accurate mathematical vocabulary in our teaching and children are expected to use it in their verbal and written explanations. Mathematics contributes to many subjects and it is important the children are given opportunities to apply and use Mathematics in real contexts. It is important that time is found in other subjects for pupils to develop their Numeracy Skills, e.g. there should be regular, carefully planned opportunities for measuring in science and technology, for the consideration of properties of shape and geometric patterns in technology and art, and for the collection and presentation of data in history and geography.

We endeavour at all times to set work that is challenging, motivating and encourages the pupils to think about how they learn and to talk about what they have been learning. Additional enrichment opportunities are provided for pupils to further develop mathematical thinking e.g. through cooking, music, maths investigations and games.

To provide adequate time for developing mathematics, maths is taught daily and discretely. Maths lessons may vary in length but will usually last for about 45 minutes in Key Stage 1 and 45 - 60 minutes in Key Stage 2. In EYFS and in Year 1, lesson length can be adapted to meet the pupils' needs

### 4. Lesson Structure/Role of the Teacher/Teaching Assistant

Lessons are structured around the concrete – pictorial –abstract approach providing opportunities throughout for using mathematical vocabulary, developing mathematical thinking and using multiple representations. There should be opportunities to record in every lesson (in different ways).



The main teaching activity should be whole-class based with everyone covering the same content. Children are generally taught in classes, not setting groups in line with the mastery approach. Pupils should have the opportunity to stay together and work through new content as a whole group. While some work may be challenging for some, the vast majority should be aiming for this standard. In extreme cases, where students have considerable learning difficulties, we may want to provide alternative/ differentiated work.

Guided groups and catch up sessions can be led by qualified teachers, whilst teaching assistants may circulate during the main part of the lesson, or take the lead on some whole class activities.

Lessons are structured with assessment opportunities throughout; these may be referred to as mini-plenaries. This provides opportunities to evaluate what has been learnt, review success criteria and address misconceptions. It should also provide opportunity for peer/self-assessment so children understand what they attained and where to go next. There are no specific time limits for the different parts of a lesson or a pre-determined format.

The aim of a mathematics lesson is to teach a child a skill or strategy that will provide a solution to a task. It is not simply to produce a page of correct number work, which is abstract to any real life situation. To support this approach, we do not erase incorrect answers or approaches as they provide a valuable clue to the path a child is taking and becomes valuable informal assessment. Work is recorded in maths work books and Maths journals.

It is the responsibility of teaching assistants supporting individuals or groups of children within a maths lesson to ensure they have read, and if required, discussed the planning with the class teacher and prepared any required resources. They are expected to provide feedback to the teacher on a daily basis for the children they have been working with. This feedback may be verbal or if preferred, written on 'post-it' notes or other means of recording.

Mathematics is taught as an independent subject but wherever possible we encourage the children to use and apply their learning in everyday situations, with links to real life. We also try to link it to other subjects and areas of the curriculum.

Mathematics skills and quality continuous provision can be seen across the whole school curriculum e.g. mathematical vocabulary and data handling in English and spellings, Start of the day activities (Maths Blast) science, history, displays, art days, assemblies etc.

We have a focus on time telling and this is referred to across the school at several opportunities. Statistics are taught discretely through science, English and foundation subjects. Shape. Position, direction and time are taught outside of the maths lesson to allow for more time allocated to number and place value within maths lessons.

Mathematics features across the curriculum and can also be seen in assemblies, during playtimes and when lining up etc.

All staff follow the school and White Rose calculation policies for written methods for all four operations. This details the progressive concrete, pictorial and abstract methods that are used alongside one another to support understanding. Maths is a focus in continuous provision throughout the EYFS stage and Year 1.

### 4.1 Impact of maths teaching

- Quick recall of facts and procedures.
- > The flexibility and fluidity to move between different contexts and representations of mathematics.
- > The ability to recognise relationships and make connections in mathematics.
- A mathematical concept or skill has been *mastered* when a child can show it in multiple ways, using the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations.
- More children achieving ARE or GDS.
- Evidence of success and challenge evident in all work.

### 5. Homework

In KS1, homework is set in line with current teaching and learning.

In KS2, homework is provided through Doodle maths online provision. This programme assesses the pupils' abilities and provides a bespoke question that are age/stage appropriate. Additional homework (Extras) can be set to support and supplement any current learning.

### 6. Classroom Environment

The classroom environment should be mathematically rich and support current learning. Maths working walls should be interactive, clearly visible and provide the children with key 'unit' vocabulary, number lines and charts, 100 squares, number facts, prompts and challenges appropriate to the age/stage and linked to current learning. In EYFS and KS1 the pupils have access to Rekenneks. Across the school, learning mats, maths dictionaries, iPad apps, and a range of concrete materials should be available for every child.

### 6.1 Resources

- White rose workbooks, White rose online resources and White rose assessment materials
- > Tool boxes for all children to access in each class (Containing relevant resources provided by the class teacher).



- > Central resource / equipment cupboard (situated in the storeroom in the ICT suite on the first floor)
- > Different environments ~ classrooms, outdoor learning spaces, gym, ICT suite, hall, music, art and D&T rooms
- > A range ICT software to support the teaching of specific concepts
- > Numicon- each EYFSs and KS1 class has the necessary equipment to support their learning. Lower KS2 have sets available.

### 7. Information and Communication Technology

ICT is used in various ways to support teaching and motivate children's learning. Each classroom has a PC connected to an interactive whiteboard. All teachers are provided with a laptop/computer and an I-pad to support their planning and provision and are encouraged to use ICT to enhance teaching and learning in mathematics where appropriate. The school is equipped with two iPad trolleys and laptops.

### 8. Assessment

Nursery staff use the developmental matters and Severnbanks milestones to support their judgements on pupils' progress. Staff regularly monitor pupils' progress and complete focus development grids and identify focus children who are not meeting developmental milestones.

### 8.1 Foundation Stage

- > Transfer records from pre-school settings indicate progress using the Early Years Foundation Stage guidance. This is used in partnership with Reception Class practitioner's ongoing observational assessments made early in Autumn, Term 1 to ascertain a baseline which then informs subsequent teaching and learning for each child. In Reception, the children complete the Government baseline with in the first term.
- Progress is carefully tracked to ensure progress in each of the Problem Solving Reasoning and Numeracy elements. These are recorded on the e-profile at the end of each term, and monitored carefully to ensure that differentiation is used for both more able, and those needing support to overcome barriers to learning.

### 8.2 KS1 and KS2

In the daily mathematics lesson, formative assessments are made on a day-to-day basis, activity records are used to document individual progress. Practitioners observe, question and evaluate lesson outcomes to further determine progress made and the next steps in learning. Immediate intervention is provided following formative assessment.



- > The maths subject leader will use the average depth from Insight to track progress.
- > INSIGHT software is used as an integral part of teaching, learning and assessing to keep a careful track of the progress and development of each child in mathematics. These records are updated electronically, to allow an appropriate stage to be assigned to each child's progress (working below, just below, on track, greater depth). Each class teacher has responsibility for updating INSIGHT for the class.
- > 'Pupil conferencing' promotes 'assessment for learning', and feeds into the subject leader monitoring of mathematics at Severnbanks School. The focus for these pupil conferences will be in line with the mathematics School Improvement Plan.
- > Statutory assessments are made at the end of each key stage, Foundation (profile), KS1 and KS2.
- > Pupils' stage of attainment are placed on the schools Assessment Tracker (SIMS)
- > Attainment and progress are measured throughout the school.

### 8.3 Monitoring and Evaluation

The Head teacher, assessment and maths subject leader play a central role in the monitoring and evaluation of the quality of teaching and learning of mathematics, problem solving, reasoning and numeracy in the school.

The monitoring strategy:

- > Children's work
- > Time table is submitted online weekly ~ timetabled focus objective
- > Pupil conferencing meetings/ pupil voice.
- > Data analysis.

### 8.4 Subject Leader's Role

- > To lead by example, model good practice, remain informed of new initiatives and promote subject knowledge, understanding and enthusiasm
- > To formulate an action plan to manage change, assure quality in the delivery of the mathematics curriculum and foster positive attitudes in all stakeholders
- > To support all staff in the delivery of a broad and balanced mathematical curriculum
- > To support all practitioners in their own professional development
- > To ensure quality teaching and learning of mathematics throughout the school
- > To implement the monitoring strategy to ensure teaching and learning is carefully tracked, strengths and development priorities identified
- > To audit / purchase resources
- > To liaise with LA Numeracy consultant / network schools
- > To inform the Governing Body on matters concerning the teaching and learning of mathematics at Severnbanks Primary School
- To encourage parent partnership and community links



### 9. Equal Opportunities

We believe that all children, irrespective of background, race, gender or ability should have equal opportunity and access to the curriculum as stated in each curriculum policy.

### Footnotes:

- i) Growth Mindset features:
  - > Everyone can learn mathematics to the highest levels
  - > Mistakes are valuable
  - > Questions are important
  - > Mathematics is about creativity, pattern spotting and sense making
  - > Communication and making connections are vital components of mathematics
  - > In a mathematics classroom the focus is not on performing or giving quick answers
  - > Depth of understanding is more important than speed

### ii) QFT includes:

- > Highly focused lesson design with sharp objectives
- > High demands of pupil involvement and engagement with their learning
- > High levels of interaction for all pupils
- > Appropriate use of teacher questioning, modelling and explaining
- > An expectation that pupils will accept responsibility for their own learning and work independently
- > Regular use of encouragement and authentic praise to engage and motivate pupils
- > An emphasis on learning through dialogue, with regular opportunities for pupils to talk both individually and in groups.

### This policy is available on the school website:

<u>www.severnbanksprimaryschool.co.uk/website/policies/257152</u>. Paper copies are available on request from the School Office.

# Mathematics Vocabulary Progression document (YR-Y6)

This document identifies in which year group vocabulary should be explicitly taught and introduced. However, language should be revisited in subsequent year groups to ensure children are consolidating their understanding. This document is fully editable so language can be moved into earlier or later year This document is designed to assist with the teaching of vocabulary across EYFS, KS1 and KS2 and is aligned with the White Rose schemes of learning. groups where necessary.

Some vocabulary might be introduced earlier (shapes for instance) if necessary or as part of an activity, however this document ensures coverage is progressive.

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	Year 6	millions	ten millions											
	Year 5	ten thousands	one hundred thousands	powers of	integer									
	Year 4	negative numbers	roman numerals	1000 more	1000 less	thousands	round							
 vumber - Number and place value	Year 3	ascending	descending	10 or 100 more	10 or 100 less	hundreds								
	Year 2	count in steps	count in multiples	place value	estimate	compare								
	Year 1	sort	represent	multiples	partitioning	ones	tens							
	EYFS	count	subitise	order/ordinal	compare	forwards	backwards	numerals	digit	one more	one less	equal to	more than	less than (fewer)

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	Year 6									
	Year 5									
	Year 4	4-digit number	operations	methods						
Addition and subtraction	Year 3	column addition	column subtraction	exchange	estimate					
	Year 2	mns	3-digit number	commutative						
	Year 1	addition/add	subtraction	difference	equals	facts	problems	missing number problems	2-digit number	inverse
	EYFS	add	plus	altogether	total	take away /minus	number bonds	part	whole	digit

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	Year 6	multi-digit numbers	long division						
	Year 5	multiples	factors	prime numbers	square numbers	cube numbers	short division	product	dividend
	Year 4	factor pairs	formal written layout	distributive law	remainders				
Multiplication and division	Year 3	exchange	mathematical statements	missing number problems	integer scaling problems	correspondence problems	derived facts		
	Year 2	multiplication tables	commutative	repeated addition					
	Year 1	multiplication	division	arrays					
	EYFS	double	half	twice as many	equal	unednal	share	group	ppo

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			Year 6								
quotient	operations		Year 5	fifth	thousandths	mixed numbers	per cent %	factors	integer	complements	
			Year 4	decimal equivalence	hundredths	convert	proper fractions	improper fractions	decimal point		
		ctions/Decimals/Percentages	Year 3	tenths							
		Frac	Year 2	three quarters	third	equivalent fractions	unit fractions	non unit fractions	numerator	denominator	one whole
			Year 1	whole	half	quarter	equal parts				
			EYFS								
	quotient	quotient quotient operations	Fractions/Decimals/Percentages	Tractions/Decimals/Percentages	Fractions/Decimals/Percentages         Year 1         Year 2         Year 3         Year 4         Year 5         Year 5<	Action   A	Partions/Decimals/Percentages   Partions/Decimals/Percentages   Partions/Decimals/Percentages   Partions/Decimals/Percentages   Partions/Decimals/Percentages   Partions/Decimals/Percentages   Partions/Decimals/Percentages   Partions   Parti	Year 1         Year 2         Year 3         Year 4         Year 5         Year 5<	Partions   Pearl   P	The diametrian   The	Year 1

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	Year 6	relative size	missing values	integer multiplication	percentages	scale factor	unequal sharing & grouping
Ratio and proportion	Year 5						
	Year 4						
	Year 3						
	Year 2						
	Year 1						
	EYFS						

	Year 6	formulae	linear number sequences
	Year 5		
	Year 4		
Algebra	Year 3		
	Year 2		
	Year 1		
	EYFS		

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algebraically	equation	unknowns	combinations	variables

	Year 6	conversion	miles	formulae	parallelograms	triangles	feet	
	Year 5	decimal notation	scaling	metric units	imperial units	inches	compound shape	irregular shapes
	Year 4	kilometres km	rectilinear figure	area				
leasurement (Measure and Length)	Year 3	millimetre mm	perimeter					
_	Year 2	standard units	estimate	order	record results	centimetre cm	metre m	
	Year 1	compare						
	EYFS	measure	wide(er)	narrow(er)	compare	long(er)(est)	short(er)(est)	length

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			Year 6	cubic metre	cubic millimetre	cubic kilometre	gallons	stones	ounces		
square centimetres	square metres		Year 5	cubic centimetre	spunod	pints					
		acity)	Year 4								
		Meas .rement (Height, Weight and Capacity)	Year 3								
		r seaW	Year 2	kilogram kg	gram g	quarter full	three quarters full	litres I	millilitres ml	temperature	Celsius
			Year 1	mass	volume						
			EYFS	height	long(er)/short(er)	tall(er)/short(er)	weight	capacity	heavy/light	heavier than	lighter than

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big/bigger/biggest	full/empty	more than	less than	half/half full

	Year 6			
	Year 5			
	Year 4	convert		
Measurement (Time)	Year 3	analogue clock	roman numerals	12-hour clock
	Year 2	intervals of time	quarter past/to	duration
	Year 1	chronological order	days of the week	months of the year
	EYFS	time	quicker	slower

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24-hour clock	a.m./p.m.	noon	midnight	leap year	digital								
month	year	o'clock	half past	second									
earlier	later	before	after	first	next	today	yesterday	tomorrow	morning	afternoon	evening	day	week

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	12
hour	minutes

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	Year 6					
	Year 5					
	Year 4					
Measurement (Money)	Year 3					
	Year 2	value	change			
	Year 1	money	coins	notes	Bounds £	bence p
	EYFS					

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	Year 6	radius	diameter	circumference	dimensions							
	Year 5	regular polygon	irregular polygon									
	Year 4	isosceles	equilateral	scalene	trapezium	rhombus	parallelogram	kite	geometric shapes	quadrilaterals		
Geometry – Properties of Shape	Year 3	right-angle triangle	heptagon	octagon	uoßkjod	properties	prism					
	Year 2	pentagon	hexagon	line of symmetry	properties	cylinder	segpe	vertices	vertex			
	Year 1	sides	corners	properties	pyramids	faces						
	EYFS	2-d shapes	rectangle	square	circle	triangle	characteristics	3-d shapes	cnboids	cnbes	cone	spheres

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curved	straight	flat	

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	Year 6								
	Year 5	reflex angles	degrees	one whole turn	angles on straight line	angles around a point	vertically opposite	missing angles	
(;	Year 4								
ieometry – Properties of shape ( !)	Year 3	orientations	angles	acute angle	obtuse angle	turn	right angles	half turn	three quarters of a turn
9	Year 2								
	Year 1								
	EYFS								

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greater than right angle	less than right angle	horizontal lines	vertical lines	perpendicular lines	parallel lines

	Year 6	four quadrants	co-ordinate plane			
	Year 5	reflection				
	Year 4	co-ordinates	first quadrant	grid	translation	plot
Seometry – Position and direction	Year 3					
(1)	Year 2	clockwise/anti-clockwise	straight line	rotation	arrange	sednences
	Year 1	position	direction	movement	whole turn	quarter turn
	EYFS	over	under	between	around	through

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nogylod	axis							
half turn	three-quarter turn							
no	into	next to	behind	beneath	order	repeat	patterns	on top of

	_	_	_	,
	Year 6	pie chart	mean	
	Year 5	timetable	two-way tables	
	Year 4	time graph	discrete data	continuous data
Statistics	Year 3	table	bar chart	one-step problem
	Year 2	pictograms	tally chart	block diagram
	Year 1			
	Reception			

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line graph	comparison problem	sum problem	difference problem	calculate	interpret
two-step problem					
category	sorting	totalling	comparing	horizontal	vertical