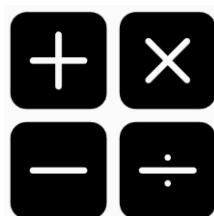
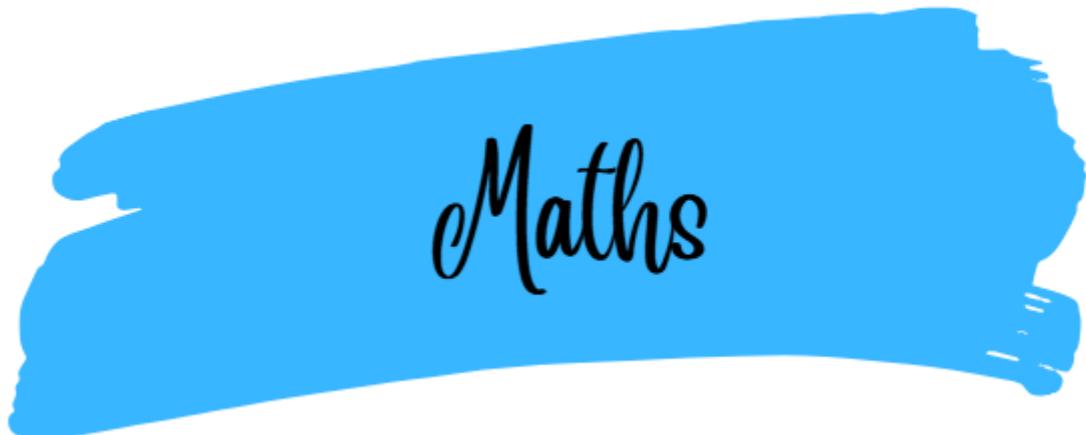


With God, everything is possible (Matthew 19:26) #everythingispossible



## Our School Vision

Through our continued service to our community and rooted in our Christian Values, the opportunities we provide inspire our children and adults at our school to learn, to grow and to flourish. We are committed to developing our children into confident individuals who make a positive difference through developing a respect for themselves, each other and the world around them. For with God, everything is possible. (Matthew 19:26)

We believe that every child is unique, gifted with talents and abilities that, when nurtured, allow them to be the best they can be. Our curriculum is designed to reflect this vision, ensuring that every learner is supported and challenged to succeed in all aspects of their education—academically, spiritually, socially, and emotionally.

Through our vision, we provide a high-quality education within a creative, stimulating, encouraging and mutually supportive environment where children are enabled to develop the skills that they require to become successful in maths and achieve everything possible! Mathematics, a universal language that enables understanding of the world, is an integral part of the curriculum. Attainment in the subject is also the key to opening new doors to further study and employment.

## Spirituality at Queen's Park

With God, everything is possible (Matthew 19:26) #everythingispossible

The spiritual development of our children is a priority across all areas of the curriculum. At Queen's Park CE/URC Primary School, we define spirituality as connecting with ourselves, others, the world and God, through whom, everything is possible (Matthew 19:26).

We explore spirituality through our Spiritual Capacities (our Spiritual C's) which are curiosity, creativity, compassion, captivation, consciousness, being courageous contributors and having opportunities to contemplate.

We understand the importance of both planned and spontaneous opportunities in all aspects of our CROWN Curriculum. This is evidenced in our class reflections book, through 'spirituality in the spotlight' and through speaking to our children.



## Purpose

The purpose of our maths curriculum is to ensure that every child builds strong and secure foundations for success in both life and learning, regardless of their starting points or any barriers they may face. These foundations are rooted in high-quality early learning and are carefully developed throughout the primary years, enabling children to acquire the essential knowledge, skills, and learning behaviours they need to flourish.

Strong foundations in **reading, writing, mathematics, and oracy** sit at the heart of our curriculum, as we recognise that these are fundamental to accessing all areas of learning for all learners, regardless of any additional barriers they may face. Alongside this, we place equal importance on developing children's **character, resilience, self-motivation, and curiosity**, ensuring they are well prepared for the next stage of their education and for life beyond school.

Just as the Crown symbolises reward from a Christian perspective, our curriculum shows children that effort, perseverance, and ambition lead to future rewards in the form of opportunity and aspiration. Our curriculum sets high expectations for every pupil, and we are relentless in our commitment to overcoming barriers to learning. Where required, learning is carefully scaffolded so that all children can access a broad and balanced curriculum and build the strong foundations to become confident, capable, and independent learners.

## Our Five Crown Principles



Challenge



Resilience



Opportunities



Wellbeing



Knowledge

Our five Crown Principles drive our maths curriculum and are underpinned by our Christian Values which promote our Christian distinctiveness.

### Rationale for our Maths Curriculum

#### Challenge

Through the 'challenge' curriculum driver we want our children to thrive on mathematical challenges. Within a teaching sequence, our children will be challenged in all three core aims of the maths curriculum: fluency, reasoning and problem solving. All staff have high expectations of pupils in lessons and expect them to demonstrate their understanding in a variety of ways using a concrete, pictorial, abstract approach.

#### Resilience

Through the 'resilience' curriculum driver, we focus on resilience as a large element of our maths lessons. We have high expectations within our maths curriculum focusing on the mastery approach to teaching mathematics. Children develop fluency within a learning concept and then apply their knowledge to reasoning and problem-solving tasks to support their resilience when facing new challenges. Our feedback policy within maths also promotes resilience by encouraging our children to identify and correct their own misconceptions through teacher prompting and/or attempt a further challenge to develop their learning further.

#### Opportunities

Through 'opportunities', we raise aspirations to broaden our children's horizons – opening their eyes to the myriad of careers they might pursue. We strive to provide all children with mathematical experiences, not just in maths lessons, but in other lessons and events happening within school. Maths

**With God, everything is possible (Matthew 19:26) #everythingispossible**

Ambassadors help facilitate and organise mathematics-based events and links. We have TTRockstars battles throughout the year to raise the profile of times tables and our Maths Ambassadors organise our annual 'Rockstars and Robots' Day. We strive to ensure our pupils have a clear understanding of the link between achieving well and having goals for the future.

### Wellbeing

At Queen's Park, we understand that happiness is linked to personal growth, health and development. We ensure our children are happy, healthy individuals. In maths, we aim for all children to be confident and happy mathematicians in every lesson. Work is scaffolded through adaptive teaching to meet the needs of all learners allowing children to feel confident, building self-esteem.

### kKnowledge

Through the 'kKnowledge' curriculum driver, we encourage our children to be resourceful learners. 'kKnowledge' is a vital part of mathematics at Queen's Park. We don't just provide children with knowledge to apply to academic tests, we aim to make our children life-long mathematicians by linking maths to real life situations making it meaningful. Our teachers teach with the aim to ensure pupils have sufficient knowledge and attain proficiency in maths to progress through primary school and beyond.



Mathematics at Queen's Park has its foundations set in the three core aims of the Primary National Curriculum: fluency, reasoning and problem solving.

Mathematics is an interconnected subject in which our young mathematicians need to move fluently between representations of mathematical ideas. Securing the strong foundations in mathematics is crucial for proficiency in mathematical understanding. Our young mathematicians need to develop automaticity in their recall of key facts and procedures and need to be able to quickly retrieve these facts from their long-term memory to apply them to more complex reasoning and problem-solving tasks.

We ensure our curriculum plans, teaching approaches, planned tasks and assessments opportunities align well and ensure that we have firmly embedded routines for the teaching and learning of mathematics throughout school to support with children's executive function skills and to reduce cognitive load.

We understand how important strong foundational knowledge is in the learning of mathematics and ensure that this is carefully planned, taught, and assessed – particularly in the Early Years and Key Stage 1. Queen's Park mathematicians are provided with many opportunities to revisit prior learning throughout their learning journey through school and are challenged to deepen their knowledge with a focus on a mastery approach to deepen understanding. We also have identified Key Instant Recall Facts (KIRFS) which focus on the foundational knowledge required for each year group. Assessment opportunities, including the regular use of low stakes assessments, are planned throughout our learning sequences to ensure foundational knowledge and concepts are firmly embedded and where misconceptions arise targeted intervention is implemented.

To ensure all our children develop into confident, young mathematicians throughout their time at our school, our curriculum is the product of careful sequencing and linking of declarative, procedural and conditional knowledge.

- Declarative knowledge (facts and figures -I know that)
- Procedural knowledge (methods-I know how)
- Conditional knowledge (reasoning and problem solving – I know when)
- This knowledge will then lead to Conceptual Understanding (making mathematical connections – I know why...)

Throughout their time at our school, our young mathematicians develop their ability to explain and reason with their mathematical thinking in all areas of knowledge identified above. Through explicit teaching of reasoning and problem solving, our children become confident in applying their fluency knowledge to solve more complex tasks.

Our lesson structure, our sequential curriculum planning and our teachers' use of precise questioning ensures our young mathematicians systematically acquire core mathematical facts, concepts, methods and strategies in order to become proficient mathematicians.

Our children are not only mathematicians within their maths curriculum; our Crown Curriculum provides opportunities to apply their mathematical knowledge and across the wider curriculum. Subject leaders have ensured that maths links in other subjects are exploited wherever possible and direct links to real life maths are embedded throughout the whole curriculum.



Our maths curriculum offer ensures a well-planned, sequential curriculum is delivered throughout school, underpinned by the National Curriculum and its core aims that: all pupils be fluent in the fundamentals of mathematics, be able to reason mathematically by following a line of enquiry and are able to solve problems by applying their knowledge of mathematics.

#### Long Term Plans for Maths

Our long-term plan is underpinned by the National Curriculum. Our maths long term plans ensure a sequential curriculum is delivered which allows pupils to learn, practise and become proficient with the facts and methods they need to secure their automaticity in fluency to then apply their understanding to reason and problem solve. There is a clear emphasis on revisiting prior learning (from

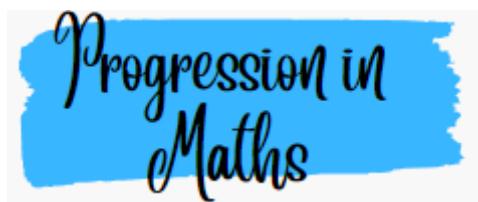
previous year groups and from within a year group), providing opportunities to rehearse key concepts and deepening knowledge throughout the year with a focus on a mastery approach to deepen understanding. The sequence of learning within a year group has been strategically planned to ensure all opportunities for building on and retrieving prior learning are exploited.

Our maths curriculum is designed to help pupils to gain increasing mathematical automaticity, which allows our children to build confidence in their ability and apply their knowledge to solve problems across all areas of the curriculum. Foundational knowledge is carefully planned throughout our maths curriculum and key foundational knowledge is identified through our KIRFS. Our daily maths meetings lessons are planned to further embed and rehearse the key foundational knowledge in each year group and our KIRFS are assessed half termly with targeted intervention delivered where gaps in learning occur. Planned opportunities to explicitly teach reasoning and problem solving are embedded into our curriculum to be taught when foundational knowledge is secure. An example of our long-term plan is shown below.

It is important to note, that based on the needs of a particular cohort, the topics maybe taught in a different order than shown on this plan.

### Maths Long Term Plan

 <b>Year 2 Maths Long Term Plan 2025 – 2026</b> 				
<b>Autumn Term</b>				
Maths Meetings: Year 2 Mastering Number Weeks 1 – 13				
Autumn KIRFS: I can read and count numbers up to 100. I know my number bonds up to 20.				
<b>Number: Place Value</b>	<b>Addition and Subtraction</b>		<b>Multiplication and Division</b>	
<ul style="list-style-type: none"> <li>Count in steps of 2, 3 and 5 from 0, and in tens from any number, forward and backward</li> <li>Recognise the place value of each digit in a two-digit number (tens, ones)</li> <li>Identify, represent and estimate numbers using different representations, including the number line</li> <li>Compare and order numbers from 0 up to 100; use &lt;, &gt; and = signs</li> <li>Read and write numbers to at least 100 in numerals and in words.</li> <li>Use place value and number facts to solve problems.</li> </ul>	<ul style="list-style-type: none"> <li>solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods</li> <li>recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100</li> <li>add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> <li>a two-digit number and 1s</li> <li>add 3 1-digit numbers</li> <li>a two-digit number and tens</li> <li>two two-digit numbers (not crossing boundaries)</li> <li>adding three one-digit numbers</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers</li> <li>calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs</li> <li>solve problems involving multiplication and division, using materials, arrays, repeated addition,</li> </ul>	
<b>Spring Term</b>				
Maths Meetings: Year 2 Mastering Number Weeks 14 - 24				
Spring KIRFS: I know my 10x multiplication and division facts. I know my 2x multiplication and division facts.				
<b>Multiplication and Division</b>	<b>Money</b>	<b>Fractions</b>	<b>Time</b>	<b>Geometry</b>
<ul style="list-style-type: none"> <li>Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers</li> <li>Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward</li> <li>Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward – use scales, money, measure.</li> <li>Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.</li> <li>Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs.</li> </ul>	<ul style="list-style-type: none"> <li>recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value</li> <li>find different combinations of coins that equal the same amounts of money</li> <li>solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change</li> </ul>	<ul style="list-style-type: none"> <li>Recognise, find, name and write fractions 1/3, 1/4, 2/4, and 3/4 of a length, shape, set of objects or quantity</li> <li>Write simple fractions for example, <math>\frac{1}{2}</math> of 6 = 3 and recognise the equivalence of 2/4 and 1/2</li> </ul>	<ul style="list-style-type: none"> <li>Compare and sequence intervals of time</li> <li>Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times</li> <li>Know the number of minutes in an hour and the number of hours in a day.</li> </ul>	<ul style="list-style-type: none"> <li>Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line</li> <li>Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces</li> <li>Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]</li> <li>Compare and sort common 2-D and 3-D shapes and everyday objects.</li> </ul>



### Medium Term Plans for Maths

Our medium-term planning documents clearly outline each unit objectives from the National Curriculum and the carefully planned, sequential smaller steps which children need to master to achieve the intended end point objective. Our medium-term plans clearly link to prior learning opportunities from both within a year group's curriculum and from previous year's teaching, promote understanding of the interconnected concepts within mathematics and provide opportunities for rehearsal of key concepts. Within a sequence of learning, where applicable, key declarative and procedural knowledge are sequenced together to reflect the reciprocal learning relationship between them. Once secure, opportunities to develop conditional knowledge through application to reasoning and problem solving are planned with explicit teaching of reasoning and problem solving strategies.

The medium-term plans include regular pre and post assessment opportunities to ensure that the teaching of mathematics is targeted to our individual children's needs through adaptive planning following regular low stake, formative assessment opportunities. Our pre assessments assess if the children's key knowledge and understanding from the previous year groups learning is secure. Analysis of these assessments allows teachers to effectively establish the accurate starting point within their lesson sequence and/or target individual children who require further targeted intervention. Our post assessments assess the children's knowledge and understanding of the learning taught within part of a sequence to allow teachers to assess whether the children have the secure knowledge and understanding to progress to a subsequent step or whether they require further targeted intervention. This ensures that new content is not taught to our children until we are confident that they have embedded knowledge of the pre-requisites required to ensure later success. An example of part of our medium-term planning is below:

#### Queen's Park C.F/U.R.C Primary School Medium Term Planning: Maths



#### Year 6 Addition and Subtraction Progression Steps

##### Long Term Plan Coverage (taken from National Curriculum):

Pupils should be taught:

- Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
- Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
- Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate

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\*Make sure your problem solving includes units of measure throughout this unit and multi-step problems

### Pre Assessment 1 Coverage (this covers progression step 1)

Year 5 curriculum for mental calculation including:

\*counting forwards and backwards in multiples of powers of 10

\*number bonds

\*using place value knowledge of powers of 10 to add and subtract mentally

$$370,000 + 41,000 = \boxed{\phantom{000}}$$

$$288,888 + 1,000 + 1,000 = \boxed{\phantom{000}}$$

$$760,000 - 60,000 = \boxed{\phantom{000}}$$

$$402,900 - 1,000 - 1,000 = \boxed{\phantom{000}}$$

### Progression Step 1:

- Add and subtract numbers with increasing value using mental methods (Make sure you teach the skill of estimation throughout this step)

#### Link to National Curriculum

- Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.

#### Possible Pre Learning to be revisited

Depending on your outcome of your pre assessment, you may need to revisit the year 5 objectives (see pre assessment coverage above).

#### White Rose Small Steps which could be used

Add and subtract integers (select the mental methods from this planning)

### Post Assessment End Point

$$980,000 - 450,000 = \boxed{\phantom{000}}$$

$$23,005 - \boxed{\phantom{000}} = 21,006$$

$$\boxed{\phantom{000}} + 3,500 = 8,400$$



Cars for sale: price list

Car A £2,750
Car B £19,500
Car C £24,999
Car D £45,000

a) Estimate the total cost of all four cars.

Cars for sale: price list

Car A £2,750
Car B £19,500
Car C £24,999
Car D £45,000

b) Estimate the difference in price between the most expensive car and the least expensive car.

$$3,050,020 = 3,000,000 + \boxed{\phantom{000}} + 20$$



Alongside our daily maths lessons, we also teach daily maths meeting lessons which are also carefully planned to ensure clear progression of foundational knowledge throughout school. These sessions focus on the children's ability to fluently recall key foundational knowledge (including of our KIRFS) and where appropriate in Years 5 and 6 their ability to retrieve prior learning to reason and problem solve. In EYFS and Key Stage 1, we follow the Mastering Number programme. In Lower Key Stage 2, children follow our own carefully planned multiplication and division programme to enable them to fluently recall key multiplication and division facts with confidence. In Upper Key Stage 2, maths meeting lessons are used to recall prior learning and rehearse foundational knowledge through fluent in five tasks.

For a complete example of a long sequence, please see our example medium term planning on our school website.

### Progression Sequences

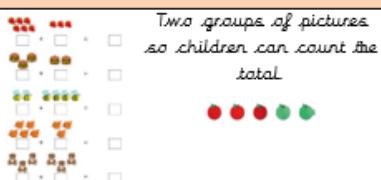
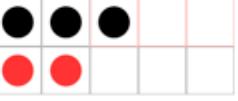
Our maths curriculum is specifically planned to ensure clear progression across a sequence of learning (including revisiting prior knowledge from previous learning) and progression within the teaching of a step, with opportunities planned to embed a sequential progression from concrete to pictorial to abstract. The progression from fluency and automatic recall of declarative and

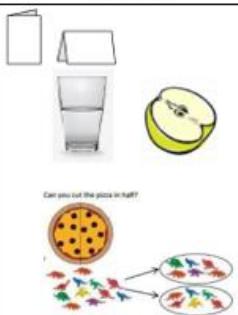
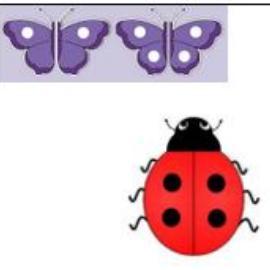
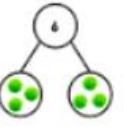
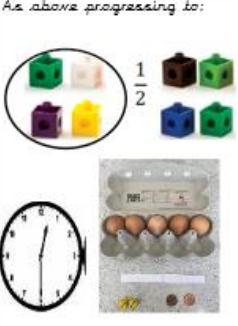
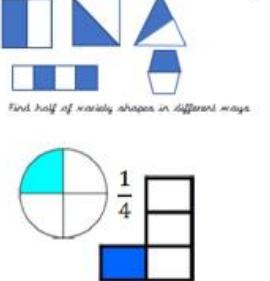
procedural knowledge to application of this through conditional knowledge to reasoning and problem solving is also embedded into each small progression step of teaching. This allows our children to embed a secure, deep understanding of mathematical concepts alongside exploring opportunities to apply their learning.

Progression in the teaching of calculation across school is also strategically planned and is displayed within our Calculation Policy. This ensures sequential learning is embedded across year groups when teaching calculation strategies so that children always build on prior knowledge when learning a new concept, whilst progressing ultimately to the most efficient method. Calculation methods are taught across the school by linking manipulatives with formal and informal methods, e.g., use of ten grids leading to pictorial methods then to formal addition and subtraction.

Within the teaching of calculation, the explicit teaching of vocabulary is also planned to be sequential, with new vocabulary teaching building on prior learning throughout the teaching of calculation across the school.

We have a Calculation Policy and a Fractions Policy to ensure consistent teaching pedagogy and clear progression through school. These can be found on our school website and examples are below.

Some of the strategies in the document below may be used in more than one of the CPA representations dependent upon the context in which they are taught			
Addition - EYFS			
<p>ELG Number: Children count reliably with numbers from 1 to 20, place them in order and say which number is one more or one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer. They solve problems, including doubling, halving and sharing.</p>			
<p><b>EYFS Vocabulary.</b></p> <p><b>Number</b></p> <p>Zero, number, one, two, three ... to twenty and beyond, teen numbers, eleven, twelve ... twenty, none, how many ...? count, count (up) to, count on (from, to), count back (from, to), count in ones, twos, fives, tens, is the same as, more, less, odd, even, few, pattern, pair</p>			
Objectives	Concrete	Pictorial	Abstract
<ul style="list-style-type: none"> <li>Find the total number of items in two groups by counting all of them. (including doubling.)</li> </ul>	<p>Use toys and general classroom resources for children to physically manipulate, group/regroup.</p>  <p>Use specific maths resources such as counters, cubes, rekenrek etc.</p> 	<p>Two groups of pictures so children can count the total</p>   	<p>A focus on symbols and numbers to form a calculation.</p> $5+2=7$

Recognising Fractions															
EYFS	Concrete	Pictorial	Abstract												
<p><b>EYFS</b> Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.</p>  <p>Can you cut the pizza in half?</p>	<p><b>Concrete</b></p>	<p><b>Pictorial</b></p> 	<p>Verbally identifying "half of 4 is 2".</p> <p>Exposure to part whole models:</p> 												
<p><b>Year 1</b> Recognise, find and name a half as one of two equal parts of an object, shape or quantity</p> <p>Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity</p> 	<p>As above progressing to:</p>	 <p>Find half of various shapes in different ways</p>	<p>Continued use of part whole models from EYFS:</p> <p><b>Abstract</b></p> <table border="1"> <tr> <td>Half of 10 =</td> <td><input type="text"/></td> </tr> <tr> <td>Half of 8 =</td> <td><input type="text"/></td> </tr> <tr> <td><math>\frac{1}{2}</math> of 14 =</td> <td><input type="text"/></td> </tr> <tr> <td>A quarter of 20 =</td> <td><input type="text"/></td> </tr> <tr> <td>A quarter of 12 =</td> <td><input type="text"/></td> </tr> <tr> <td><math>\frac{1}{4}</math> of 8 =</td> <td><input type="text"/></td> </tr> </table>	Half of 10 =	<input type="text"/>	Half of 8 =	<input type="text"/>	$\frac{1}{2}$ of 14 =	<input type="text"/>	A quarter of 20 =	<input type="text"/>	A quarter of 12 =	<input type="text"/>	$\frac{1}{4}$ of 8 =	<input type="text"/>
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# Vocabulary

## Vocabulary is V.I.T.A.L in Maths

### Valued

We value vocabulary in maths and it underpins everything we do.

### Identified

Mathematical vocabulary is identified by the teacher in every maths lesson and is explicitly planned for. It has also been highlighted with the Calculations Policy by the maths lead to ensure progression across school.

### Taught

Vocabulary is explicitly taught in every lesson. It is an integral part of our seven-part lesson structure.  
Vocabulary is displayed on our working walls.

### Applied

With God, everything is possible (Matthew 19:26) #everythingispossible

Once vocabulary is taught, it is applied. Children apply their vocabulary in their talk tasks (which are specifically planned to encourage oracy opportunities within maths lessons) and by using and identifying it with their independent tasks. Mathematical vocabulary will be used in reasoning and problems solving tasks, to further embed children's understanding and within assessment outcomes in maths.

### Learned

Vocabulary is revisited and relearned. Vocabulary sticks in the children's long-term memory. Lesson by lesson, year by year, children revisit and relearn key mathematical vocabulary.

## Oracy at Queen's Park

Oracy is a fundamental pillar of our curriculum and underpins all learning. We recognise that strong communication and language skills are essential foundations for pupils' success across the curriculum and in later life. From the earliest years, children are taught to listen attentively, speak clearly, and express their ideas with confidence, using a rich and ambitious vocabulary.

Our curriculum places a strong emphasis on developing oracy through structured talk, discussion, and purposeful opportunities to articulate thinking. By embedding high-quality talk across all subjects, we enable pupils to deepen understanding, build knowledge, and make connections in their learning. Strong foundations in oracy support pupils' reading and writing development, mathematical reasoning and problem solving and enhance engagement, ensuring all children, including those who may experience language barriers, can access the full curriculum.

As a result, pupils become confident communicators who can explain their thinking, collaborate effectively with others, and engage thoughtfully with the world around them.

Early Years  
Foundation Stage

Through an '**explosion of experiences**', our youngest mathematicians are exposed to the foundations of their maths learning with key foundational knowledge identified in our EYFS maths curriculum. Carefully planned maths experiences are provided for our children. High quality lessons, stories and rhymes and continuous provision in EYFS provides the building blocks for our Queen's Park mathematicians. Our EYFS curriculum has been carefully planned to ensure learning builds on fluent recall of foundational knowledge and is a cyclical curriculum to ensure time for rehearsal and retrieval of this key knowledge. Assessment opportunities through low stake assessments are embedded throughout our EYFS curriculum and targeted intervention is implemented to address misconceptions.

Maths vocabulary is planned for and staff ensure children are exposed to the correct terminology when exploring experiences that have mathematical links. Staff are role models in demonstrating mathematical vocabulary and this is further enhanced in our excellent provision. The foundations of maths learning in EYFS is linked to Year 1 and beyond.

# Implementation

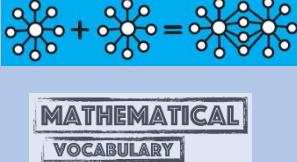
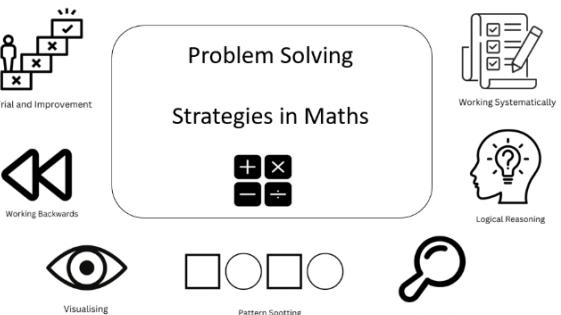
## Pedagogy



Both our staff and children are enthusiastic about maths. Through ongoing quality CPD, we strive to ensure our teachers have expert knowledge of the maths that they teach. Our pedagogy is firmly based upon our curriculum intent of embedding concepts and foundational knowledge into long-term memory so that they can be recalled and to ensure declarative, procedural knowledge and conditional knowledge are being taught throughout our curriculum leading to conceptual understanding.

Our 'Queen's Park Quality First Teaching' model ensures that all lessons are effective, efficient, and equitable. Lessons are effectively sequenced so that new knowledge and skills build on what has been taught before and towards defined end points. All lessons are planned to reflect the sequence of learning identified on the medium-term plans. We adopt a mastery approach to the delivery of our maths curriculum however adaptive teaching is implemented where necessary to ensure all learners, including those with SEND, access a well-planned and meaningful maths curriculum. If appropriate, these lessons are modified to meet the needs of the individual.

We ensure a systemic, instructional approach is adopted in all our lessons where children are provided with opportunities to deploy and recall knowledge as well as apply and reason. Our seven-part lesson structure has been strategically designed based on research from the Education Endowment Foundation and Rosenshine Principles to ensure efficiency in every lesson.

<b>Queen's Park Maths lesson</b> <b>Seven part lesson structure</b>	
	<b>Lesson Part 1: Focus on Feedback</b> <p>This part of the lesson allows for children to revisit their learning from the previous lesson to address any misconceptions or to complete a challenge for retrieval practice or to further deepen their knowledge of a concept. Feedback from the previous lesson should provide children with prompts to address misconceptions to promote resilience or where necessary should provide specific, accurate and clear feedback focusing directly on the misconception.</p>
	<b>Lesson part 2: Recap</b> <p>This part of the lesson allows for retrieval practice of previous learnt knowledge, concepts or processes. Depending on the outcome of teacher assessment from the previous lesson, this could also include revisiting a misconception at a whole class level. The task should allow for consolidation of prior learning and promote the application of this to other topics where appropriate.</p>
	<b>Lesson Part 3: Hook</b> <p>Maths vocabulary is introduced or in some cases revisited at the start of the hook. Explicit teaching of new vocabulary is taught here including the teaching of the vocabulary in a context where applicable. Retrieval practice of key vocabulary is also completed. The key learning should be shared with the pupils at the start of the hook. The 'hook' is an introduction to the new learning. New learning is taught by progression through concrete, pictorial, and abstract representation where appropriate. Effective teacher modelling is evident during this part of the lesson with teachers clearly modelling their own mathematical thinking. Teachers ensure that core content is well embedded first within a sequence of lessons before progressing to application within problem solving and reasoning to ensure depth and breadth of mathematical understanding. When teaching problem solving, explicit strategies should be explored and modelled with reference made to the school problem solving symbols to ensure consistency across school to reduce cognitive load.</p> <div style="text-align: center;">  </div> <p>Although oracy is promoted throughout a lesson, this part of the lesson allows for explicit modelling of sentence stems, vocabulary and opportunities for children to verbally explain their mathematical thinking.</p>
	<b>Lesson Part 4: Talk Time</b> <p>Talk time allows the children to orally rehearse or apply their learning from the hook (depending on the focus on the lesson and its position within a sequence) before progressing to independent learning. Children should be encouraged to make connections with previous learning through active learning. This section could involve pupils using concrete materials or interpreting representations and concepts. Children will be expected to use the correct mathematical language when exploring concepts within talk time and this will be explicitly modelled by the adults in class. The talk task is a crucial opportunity for assessment; all adults need to circulate so that a clear picture of pupils' understanding emerges and can impact on the subsequent segments as required.</p>

	<p><b>Lesson Part 5: Review</b></p> <p>The review section allows for consolidation of learning in previous parts of the lesson and provide teachers with an opportunity to address any common misconceptions identified through their assessment in the talk task. This ensures that misconceptions are effectively addressed to prevent them from leading to a systematic pattern of errors. This part of the lesson should be reactive and not necessarily pre-planned.</p>
 <p>INDEPENDENT PRACTICE</p>	<p><b>Lesson Part 6: Independent Task</b></p> <p>The independent task allows for children to practise or apply their learning. Depending on where the lesson is within the learning sequence, the independent task may include fluency, reasoning, or problem-solving tasks. Lessons towards the start of a sequence will typically include rehearsal of fluency strategies to develop automaticity with opportunities to apply their knowledge to reasoning and problem-solving tasks later within a sequence. This is a vital opportunity for assessment and all adults in the class provide immediate feedback through live marking.</p>
 	<p><b>Quiet Thinking Time.</b></p> <p>Within a lesson, children should be provided with the opportunity to explore their mathematical learning in a quiet learning environment, allowing for deep concentration and exploration of their own mathematical thinking. This may vary in position within a lesson depending on the task which have been planned.</p>
	<p><b>Lesson Part 7: Plenary</b></p> <p>The plenary is an essential opportunity to consolidate learning, gauge levels of understanding and develop pupils' skills in explaining, reasoning and justifying where appropriate. This part of the lesson provides teachers with immediate, formative assessment of the children's understanding from the lesson and any misconceptions which may need to be addressed either within this part of a lesson or at the start of the next lesson.</p>

### Maths Meetings

Maths meetings are taught in addition to the main curriculum maths lessons as explained above.

EYFS and Key Stage 1 deliver Mastering Number following the pedagogy advice directed in the programme, including the use of Renkenreks. All EYFS and Key Stage 1 staff have been trained in the delivery of Mastering Number.

Years 3 and 4 deliver our own bespoke multiplication and division programme. These are short sessions focusing on the recall of multiplication and division facts through opportunities for oral rehearsal and recall through games and practical activities. Maths meeting sessions are also used to teach and revise the KIRFS identified for that year group. Assessment opportunities are planned throughout the programme to allow teachers to quickly intervene and address any misconceptions.

Years 5 and 6 use our maths meetings sessions to retrieve and recall previously taught foundational knowledge through 'fluent in five' tasks. Some sessions may be planned to solve reasoning and problem solving tasks to apply their learning. Maths meeting sessions are also used to teach and revise the KIRFS identified for that year group. Children in Year 5 who did not meet the expected standard on the Year 4 multiplication check may continue with the multiplication and division programme during maths meetings or as additional targeted intervention.

# Adaptive Teaching

At Queen's Park, we implement an adaptive teaching approach to ensure that all learners engage in meaningful, challenging, and achievable learning experiences. Our strategy is informed by the Education Endowment Foundation (EEF) research on adaptive teaching, emphasising high expectations, scaffolded support, and responsive adjustments to meet the needs of all pupils. We ensure effective, early identification of any additional barriers to learning, inclusive of but not restricted to Special Educational Needs, Pupil Premium and EAL. Adaptive teaching is essential to our quality first teaching offer as part of our graduated response.

## **Our Approach: 80% Proactive, 20% Reactive**

We recognise that effective adaptive teaching is most successful when it is intentionally planned in advance (proactive) while also allowing for real-time adjustments (reactive) based on pupil responses and progress. Our model ensures:

**80% Proactive Adaptive Teaching:** Teachers anticipate and plan for diverse learning needs by designing lessons that provide challenge while being accessible to all. This includes the following:

- Carefully structured tasks that encourage all learners to think hard but remain achievable with time, effort, and support.
- Scaffolded instruction, including modelling, worked examples, and guided practice.
- Strategic use of questioning to check understanding and deepen learning.
- Use of visuals and concrete resources to support learning.
- Scaffolded tasks that enable all children to access the curriculum without lowering expectations.
- Planned opportunities for retrieval throughout the curriculum and where appropriate planned opportunities for pre-teach of new learning.
- Use of accessibility features on iPads to support learning tasks or use of ICT to provide further scaffolding.
- Where necessary, a modified curriculum to ensure full curriculum entitlement for children who are working below the age-related expectations as identified on the SEND register.

**20% Reactive Adaptive Teaching:** Teachers remain responsive during lessons, adapting in the moment to ensure all learners stay engaged and make progress. This includes:

- Making in-the-moment adjustments, such as providing additional explanations, breaking down tasks further, or offering immediate feedback.
- Using formative assessment strategies to identify and address misconceptions as they arise.
- Adjusting levels of support, such as peer collaboration, teacher intervention, or additional scaffolding, based on pupil responses.

Our adaptive teaching strategy is based on our Crown Curriculum principles:

**Challenge** – We ensure that all learners engage in thinking hard about their learning while accessing tasks that are **achievable with time, effort, and support**. We do not lower expectations or simplify content unnecessarily; instead, we provide the right scaffolds and strategies to enable all pupils to **meet ambitious learning goals**.

**Resilience** – We ensure that all learners develop the ability to embrace mistakes as part of learning and take ownership of their progress. We recognize that resilience is not just a personal trait but a skill that can be developed through carefully structured learning experiences.

**Opportunities** – Our adaptive teaching strategy is designed to **provide every learner with opportunities to succeed and raise their aspirations**. We believe that every child, regardless of their starting point, should have access to a **rich, challenging, and supportive curriculum** that enables them to achieve success now and in their futures.

**Wellbeing** – Our adaptive teaching strategy is designed not only to support academic success but also to **prioritize pupil wellbeing**. We recognize that effective learning happens when children feel **safe, valued, and supported** and our approach ensures that every pupil can engage with challenge and make progress without feeling overwhelmed. By embedding wellbeing into our teaching practices, we create a learning environment where all children thrive and feel personal success.

**Knowledge** – Our adaptive teaching strategy prioritises learning through knowledge acquisition. By tailoring instruction to meet diverse learners' needs, we facilitate deeper engagement with the curriculum.

### Resources

Our teachers have access to a range of resources to support the teaching of maths in school. Our bespoke medium-term plans are carefully planned to ensure they meet the needs of our learners at Queen's Park Primary and therefore we do not use one set published scheme. Our teaching staff have access to a range of resources to support our curriculum delivery including from a local maths consultant, White Rose and NCTEM. The Mastering Number programme is used throughout EYFS and Key Stage 1.

### Intervention

Our maths curriculum offer ensures all our children receive effective, high-quality teaching in the classroom every day; however, we understand that on occasions children may require additional intervention to develop and deepen their learning. Our comprehensive intervention strategy is underpinned by the EEF's research into effective intervention and supports the adaptive, quality first teaching in the classroom. Our pre and post assessments heavily inform our intervention strategy within maths alongside formative assessment within a learning sequence. Live marking during a lesson allows for immediate intervention to address misconceptions or deepen understanding. Some children may also be identified through assessment as benefitting from a pre teach maths session with the class teacher prior to a lesson to ensure pre-requisite knowledge is secure. Within the school day, a child may also access mop up maths intervention, one to one or a small group targeted intervention (e.g. through IPP targeted work) or computer based intervention programmes such as Times Tables Rockstars or Numbots. We also run interventions outside of the school day through school led tutoring which identified children are invited to attend.



We understand that we may not see the true impact of our maths curriculum on our children as our maths curriculum is just the beginning of a lifetime of learning.

Our well-constructed and well-taught maths curriculum leads to great outcomes. At Queen's Park, our philosophy is that broad and balanced leads to great outcomes and meeting end points at the end of each key stage. National assessments are useful indicators of the outcomes our children achieve.

We ensure all groups of children are given the knowledge and cultural capital they need to succeed in life. We strive to ensure that our children are equipped with the skills to fluently be able to retrieve key facts from their semantic memory.

The quality of our children's work, at every stage, is of a high standard. All learning is built towards an end point and at each stage of their education, we prepare our children for the next stage by ensuring key assessment data is shared with the child's next teacher.

We ensure all our children are fluent in maths to a stage appropriate level with the ultimate aim of proficiency in maths for all our children.

The impact of Queen's Park maths curriculum is measured through the following:

- Assessment – including low stake pre and post assessments within a learning sequence assessing what the children have been taught as well as a summative termly assessment to assess learning in the long term memory
- National test data
- Pupil voice
- Progress evident in children's books
- Seeking views of parents where appropriate
- Progress evident in children's books and record of experiences
- Seeking views of parents where appropriate