Intent	At St Patrick's, we intend to provide a mathematics curriculum which caters for the needs of all individuals and sets them up with the necessary skills and knowledge for them to become successful in their future adventures and working life. We aim for children to develop a positive and enthusiastic attitude to foster confidence and achievement in a skill that is essential in our society. We are committed to ensuring all children achieve a mastery of the key concepts of mathematics for their age group. We incorporate sustained levels of challenge through varied and high-quality activities with a focus on fluency, reasoning and problem solving. Pupils are required to explore maths in depth, using mathematical vocabulary to reason and explain their workings. A wide range of mathematical resources are used and pupils are taught to show their workings in a concrete, pictorial and abstract form wherever suitable. They are taught to explain their choice of methods and develop their mathematical reasoning skills. Pupils who grasp concepts rapidly are challenged through rich and sophisticated problems and we provide consolidation through practice for children who are not sufficiently fluent to make the next steps to avoid gaps. A growth mindset approach encourages resilience, adaptability and acceptance that struggle is often a necessary step in learning. Our curriculum allows children to better make sense of the world around them by making explicit the connections between maths, other areas of the curriculum and everyday life.			
Underpinned by	**Mastery**	**High expectations of all**	**Vocabulary Rich Environment**	**Making connections**
	All children secure long-term, deep and adaptable understanding of maths which	We work on the assumption that everyone can achieve in and enjoy mathematics. The expectation is that all children will take part in whole class	We intend to create a vocabulary rich environment, where talk for maths is a key learning tool for all pupils. Pre teaching key vocabulary is a	All children will have opportunities to identify patterns or connections to previous learning, other curriculum areas and

	they can apply in different contexts.	discussions through an interactive back and forth teaching approach.	driver for pupil understanding and develops the confidence of pupils to use of precise mathematical language to communicate their reasoning and thinking effectively.	everyday life in their maths; they can use this to predict and reason.
	Teaching of Fluency	**Teaching of Reasoning**	**Teaching of Problem Solving**	
	We intend for all pupils to be able to efficiently and accurately recall key number facts and procedures, freeing their minds to think deeply about concepts and problems, and to move between different contexts and representations of mathematics, to recognise relationships and make connections, and to choose appropriate methods and strategies to solve problems.	We intend for all pupils to reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.	We intend for all pupils to solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.	

Implementation	**<u>Planning</u>** We use **White Rose Maths Scheme of Learning** for our long-term and medium-term planning. The small steps are carefully sequenced to allow progression and build secure understanding. Lessons are carefully designed using the strategies explained in this table. We use **white rose premium resources** as a basis for this, supplementing this with: **Deepening understanding and Nrich challenges** (for more challenging reasoning); **NCETM spine Materials** (for scaffolding); and **Target Maths** (for fluency practice) EYFS and KS1 use **NCETMs Mastering Number Programme** to support children's learning of key number concepts.	**<u>Review/retrieval</u>** Previous learning is reviewed daily to allow opportunities for retrieval. The resources **Flashback 4** (White Rose) and **Fluent in 5** (Third Space Learning) are used to support this. The start of each lesson reviews the previous learning linked to the new learning for the day to strengthen connections and develop fluency. **<u>Mathematical vocabulary to explain thinking</u>** We use the **maths vocabulary progression document** to pre-teach vocabulary linked to new learning and to ensure it is age appropriate. We use reasoning **stem sentences** to support children's verbal and written explanations. We use a **collaborative approach** to learning, encouraging paired work, discussion and	**<u>I do, We do, You do</u>** When introducing new knowledge our approach is split into 3 phases: **I do** – the teacher models, thinking aloud and using worked examples. Representations are used to help support the understanding of the new concept. **We do** – children work on examples but this is still guided by the teacher. This phase often involves children working in pairs and allows opportunity for lots of discussion to consolidate understanding. **You do** – independent practice allows children to demonstrate their understanding and become fluent. Self-assessment allows for instant feedback.

		children sharing ideas. We use **stem sentences** to reinforce mathematical concepts and aid retention.	**Representation and structure** We use a variety of concrete resources to represent mathematical concepts with particular focus on **counters**, **base 10, numicon** and **rekenreks.** Teachers carefully choose pictorial representations to expose the structure of the mathematical concepts. These commonly include: **bar models, part-whole models, base 10 drawings, number lines and place value charts.** Teachers use the **White Rose scheme** and **NCETM spine materials** to support them. Our **calculation policy** outlines how we teach calculation using a CPA approach
	Fluency with number facts Quick recall of number facts is encouraged using **Timestable Rockstars** and **White Rose 1 Minute Maths** and various other resources. Teachers provide opportunity for daily practice of number facts. We use the **KIRF** document to ensure progression in number facts. **Continuing Professional Development (CPD)** We continuously strive to better ourselves and frequently share ideas and things that have been particularly effective. We take part in training opportunities and regional networking events, such as the NCETM work groups.	**Questioning and assessment** Teachers use regular targeted questioning at key points during a lesson to determine how well the new concept is understood and to identify misconceptions that require attention. Children in KS2 self-assess to allow instant verbal feedback. **White Rose End of block assessments** are used where teachers feel they need a more accurate formative assessment. **White Rose End of term assessments** are used as our summative assessments. These inform the basis of our school's maths data and tracking of progression.	

Impact	**Pupil Voice**	**Evidence in knowledge**	**Evidence in skills**	**Outcomes**
	Pupils talk enthusiastically and with confidence about their maths lessons and can articulate the context in which maths is being taught and relate it to real life purposes. They can share how they overcome challenges and have a belief that they can achieve.	Pupils know how and why maths is used in the outside world and in the workplace, and the importance of maths in supporting their future potential. Children master mathematical concepts or skills therefore they 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. Children demonstrate a quick recall of facts and procedures.	Children have the skills to use methods independently and show resilience when tackling problems. They have the flexibility and fluidity to move between different contexts and representations of maths. Children show a high level of pride in the presentation and understanding of the work. They recognise relationships and make connections in maths lessons.	**Mastery** All children secure long-term, deep and adaptable understanding of maths which they can apply in different contexts At the end of each year we expect the children to have achieved Age Related Expectations (ARE) for their year group. Some children will have progressed further and achieved greater depth (GD). Children who have gaps in their knowledge receive appropriate support and intervention.