



## Curriculum Intent Statement for Maths

### Our School Vision

*"Our school is a church school with strong Christian foundations. We aim to provide the very best for every child in our school and to help them to reach their potential within a safe and secure Christian environment. Our current Vision is based on the school needs at the current aim and is based on:*

*"Be kind and compassionate to one another, forgiving each other, just as in Christ, God forgave you."*

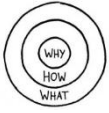
*Ephesians 4:32*

*St George's Church of England Primary School - supporting each other to courageously flourish, within our community, armed with our shield of Christian values. Be Kind. Be Compassionate. Be Forgiving."*

### Whole School Curriculum Intent

At St. George's School, our curriculum pledge is;

- We promise that we will have the highest expectations for all
- We promise we will uphold our school Christian values
- We promise we will all be inspired, excited, engaged and curious learners
- We promise to nurture lifelong learning.



## INTENT

### WHY do we teach Mathematics at St George's?

**Believe + Enjoy + Achieve = Everything Is Possible**

**“Pure Mathematics is, in its way, the poetry of logical ideas” – Albert Einstein**

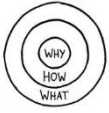
Mathematics is an important creative discipline that helps us to understand and change the world. We want all pupils at St George's to experience the beauty, power and enjoyment of mathematics and develop a sense of curiosity about the subject.

At St George's, we foster positive 'can do' attitudes, actively believe *all* children can achieve in mathematics, and teach for secure and deep understanding of mathematical concepts. We use mistakes and misconceptions as an essential part of learning and provide challenge through rich and sophisticated problems before acceleration through new content.

The essential idea behind teaching of Maths at St George's is that all children need a secure and deep understanding of the mathematical concepts they are learning so that:

- Future mathematical learning is **built on solid foundations**, which do not need to be re-taught;
- There is **no need for separate catch-up programmes** due to some children falling behind;
- Children who, under other teaching approaches, can often fall a long way behind are better able to keep up with their peers, so that **gaps in attainment are narrowed while the attainment of all is raised.**

At St George's, we view this as a set of core principles and beliefs. This includes a belief that all pupils are capable of understanding and doing mathematics, given sufficient time. Pupils are neither 'born with the maths gene' nor 'just no good at maths'. With good teaching, appropriate resources, effort and a 'can do' attitude all children can achieve in and enjoy mathematics. Integral to **mastery** of the curriculum is the development of deep rather than superficial conceptual understanding. The research for the review of the National Curriculum showed that it should focus on “fewer things in greater depth”, in secure learning which persists, rather than relentless, over-rapid progression.



## IMPLEMENTATION

### HOW/WHAT do we teach Mathematics at St George's?

The **CanDoMaths approach** is used to underpin teacher's teaching, planning and assessment of Mathematics for Years 1-6. CanDo is underpinned by the National Curriculum and Non-Statutory Guidance and, as a result, CanDoMaths progression and sequencing of lessons can be monitored in-line with national expectations.

EYFS use planning by Early Years consultant Sue Rayner and TWHF EYFS Maths Team in line with the Statutory framework for the Early Years Foundation Stage 2021, as their framework for teaching and learning. This approach may also be adopted within Y1 teaching to build on EYFS practice through continuous/enhanced provision.

The CanDoMaths Manageable Steps for each year group and Early Years overview can be found on the school website alongside this policy, Termly Overviews for Y1-6 and Knowledge Organisers for Y1-6.

The CanDoMaths and Sue Rayner progressions are used as a **framework** from which teachers plan their sequence of lessons. However, teacher judgement will ultimately be used as the basis for deciding the sequence of lessons and amount of time spent on each concept depending on the arising needs of the children in each cohort.

### EYFS/KS1 MATHEMATICS PROVISION:

In the Foundation Stage, Maths is taught through a carefully sequenced combination of whole class input, small group adult-led activities alongside continuous provision. As appropriate depending on the time of school year and cohort of children, we continue this approach into Year 1 in a way that builds on EYFS practice in order to meet the appropriate National Curriculum objectives.

Teachers and practitioners support children in developing their understanding of mathematics in a broad range of contexts in which they can explore, enjoy, learn, practise and talk about their developing understanding. This area of development includes seeking patterns, making connections, recognising relationships, working with numbers, shapes and measures, and counting, sorting and matching. Children use their knowledge and skills in these areas to solve problems, generate new questions and make connections across other areas of learning and development.

Children in the EYFS learn by playing and exploring, being active, and through creative and critical thinking which takes place both indoors and outside. We recognise that children learn through routine, continuous provision and incidental learning opportunities, as well as planned sessions and activities. Mathematical understanding can be developed through stories, songs, games, routine, questioning, imaginative play, child initiated learning and structured teaching.

**Whole Class/Carpet Sessions:** Most days, EYFS children will take part in carpet time learning to deliver the key/core mathematical learning for that week/term

**Small Group Sessions:** 2-3 times per week, small group activities to further enhance the whole class sessions from that week

**Continuous Provision\***: Mathematical opportunities through CP will be available in the classroom all of the time, both in the Maths Zone as well as in many other areas of CP to ensure there are a vast range of opportunities for mathematical thinking and discussion.

**Enhanced Provision\***: There will be EP specifically tailored to the current mathematical ideas being taught in whole class/small group sessions to ensure children get extra opportunities to develop their mathematical thinking and ideas.

**KS1/KS2 MATHEMATICS: INTELLIGENT PRACTICE vs DELIBERATE PRACTICE**

At St George’s, we recognise the importance of **introducing new learning** in a purposeful, carefully sequenced series of manageable steps so that all children can build their learning on a solid foundation of previous learning, but also building in **regular time to practice, review and intervene** to ensure children become fluent in past learning.

As such, there will be **two distinct elements** to our Maths sessions:

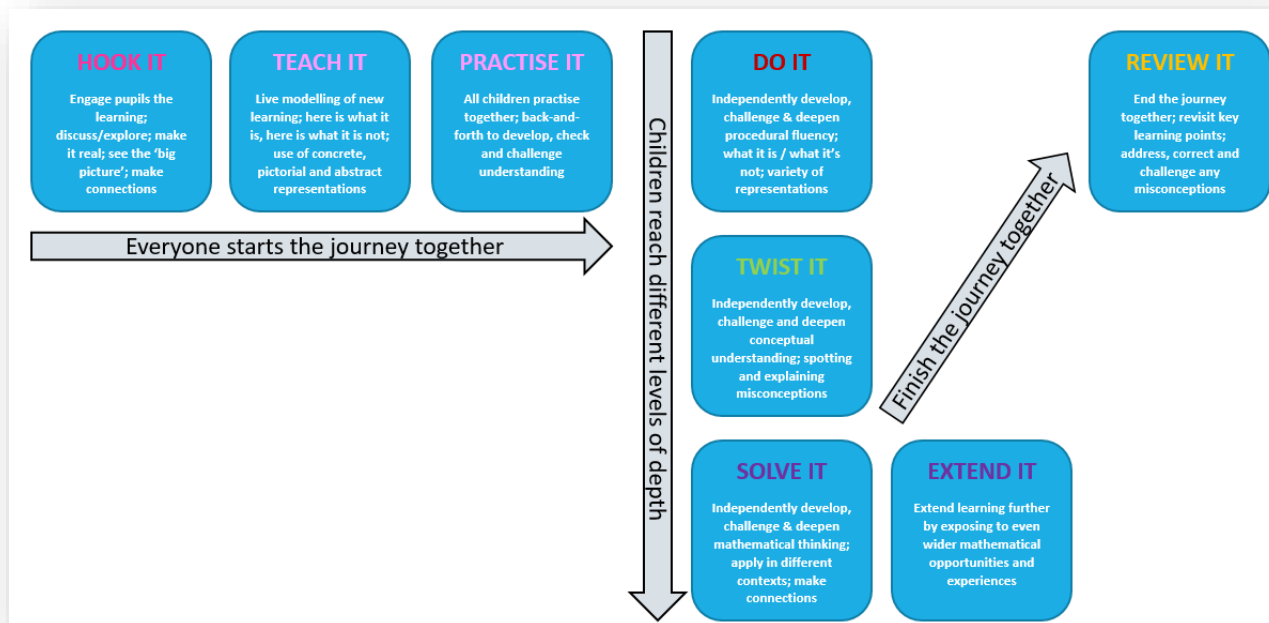
Maths Lessons (Intelligent Practice)
Daily Maths Lessons
New Manageable Step
<p><b>Learn together (Hook It, Teach It):</b> modelling, representing, use of language to develop conceptual understanding</p> <p><b>Practise together (Practice It):</b> assessment for learning</p> <p><b>Practise independently (Do It, Twist It, Solve It, Extend It):</b> independent intelligent practice</p> <p><b>Review together (Review It):</b> revisit key learning points, assessment for learning</p>

Maths Meetings (Deliberate Practice)
Regular Deliberate Practice Session
Practise, Review & Intervene Prior Learning
<p style="text-align: center;">Practise to make skilled Intervention Arithmetical fluency Developing fluency Pre-teaching</p>

## KS1/KS2 Maths Lesson (*Intelligence Practice* to introduce New Manageable Step)

Each day, classes take part in **Maths Lessons** to **introduce new learning**. These focus on one manageable step, taken from a thorough and well-considered long and medium term planning document, which ensures sufficient, progressive and deep coverage of all curriculum objectives. Unit planning is based on the National Curriculum Statements ('Themes') dividing materials into manageable steps lesson by lesson. This will take place between break-lunch for all classes, but timetabling will vary dependent on the age/stage/year mix of the classes.

### Typical Maths Lesson Design:



Whilst this is the 'typical' lesson design, we also recognise the need for flexibility in planning to allow teachers to approach different concepts in different ways according to the complexity of the subject and age of the children. It is not expected that all children will reach the deeper level of understanding within every lesson, but instead that their depth of understanding from their starting point will improve. However, as **opportunities for reasoning and problem solving are fundamental for all children** regardless of levels of attainment, and so extra opportunities for problem solving will be built into maths provision, such as Problem Solving Days and problem solving foci in Maths Meetings.

## KS1/KS2 Maths Meeting (*Deliberate Practice* to Practise, Review & Intervene Prior Learning)

At St George's, we make time every day for children to take part in **Maths Meetings** to **practise, review and intervene for past learning**. This is specifically planned to support deliberate practice, consolidation, pre-teach and/or provide immediate intervention. This time to revisit previously learned concepts, knowledge and procedures ensures that, once learned, mathematical knowledge becomes deeply embedded in pupils' memories.

Teachers are encouraged to routinely adapt these sessions based on the arising needs of the children in their class, using both their formative and summative assessments to help inform this. For example, there may have been gaps in children's learning from previous weeks we need further practise as gleaned from an end of term assessment, or a teacher may have identified a gap in children's understanding at the beginning of the week which needs to be addressed immediately.

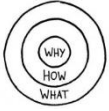
As with the Maths Lessons, there is flexibility for teachers to adapt the order and timetabling of Maths Meetings to suit the arising needs, age of the children and other timetabling adaptations: some classes may have their Maths Meetings prior to a Maths Lesson, some may have them immediately after lunch and some may have them at the beginning of the school day, some may have a carousel whereby one year group starts a Maths Lesson whilst another begins their Maths Meeting. It is expected that this is different in each class as it should best suit the needs the class and timetabling restrictions that variable class sizes, TA support and age group mixes presents.

### **Overall, in Mathematics at St George's, we will be doing more of this:**

- Teaching all pupils in class, together, most of the time
- Verbal feedback during lessons and more ticking of correct concepts
- Spending longer on one idea
- Giving pupils who need it additional support over shorter more intense timescales – ideally same/next day - to prevent gaps in learning occurring
- Regular assessments which cover what's been taught to inform teaching

### **And less of this:**

- Formal marking with lots of feedback and 'next steps'
- Covering lots of ideas in one week
- Formal, long term interventions to boost pupils out of class
- Separating in to ability groups
- Formal testing of pupils termly to obtain a grade/level



## IMPACT

### What will this LOOK like?

#### What you will see in our classrooms is:

- Children who feel like they can be **successful** in mathematics
- Children **developing and deepening conceptual understanding** of the mathematics they are learning
- Children **explaining their mathematical thinking** using appropriate mathematical language and representations.
- **Equitable provision** to meet the needs of individuals and groups within each class

#### By the time a child leaves St George's they will have:

- Become **fluent in the fundamentals of mathematics** (see Breadth of Study progression) so that they develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- **Solve problems** by applying their mathematics to a variety of problems with increasing sophistication, including in unfamiliar contexts and to model real-life scenarios
- **Reason mathematically** by following a line of enquiry and develop and present a justification, argument or proof using mathematical language.
- Have an **appreciation of number and number operations**, which enables mental calculations and written procedures to be performed efficiently, fluently and accurately to be successful in mathematics.
- **Secure and deep understanding** of Mathematical concepts