



**Stonesfield Primary School**  
Learning together to achieve our best

**MATHS POLICY**  
**July 2022**  
**Review: July 2024**

**Intent: what is our curriculum aspiring to achieve?**

At Stonesfield Primary School, maths is a creative, fun and engaging subject, with strong connections to our day-to-day lives. Our maths curriculum develops children to be fluent mathematicians, able to solve mathematical problems, and able to reason confidently using mathematical language.

A mathematician needs to be:

- Analytical – able to spot similarities and differences
- Critical – able to identify problems and mistakes
- A problem solver – resilient enough to approach a problem from different angles
- Inquisitive – want to know why, and how things work
- Precise – able to understand precisely what is, what is not, and what is a grey area
- Efficient – able to select and use appropriate strategies to solve problems quickly

We teach with a **mastery** approach with high expectations for all children. This means that we are teaching children to have a deep conceptual understanding rather than teaching so that children can get a correct answer. Being able to explain how an answer is calculated, why that answer is correct, and what might happen if a particular variable was changed are the hallmarks of a good mathematician.

We believe that all children are able to succeed mathematically, and that one of our primary tasks as maths teachers is to find ways of presenting, scaffolding, and teaching concepts in such a way that everyone will achieve.

**Implementation: what do we do to deliver our intent?**

**High standards in teaching and learning are produced by:**

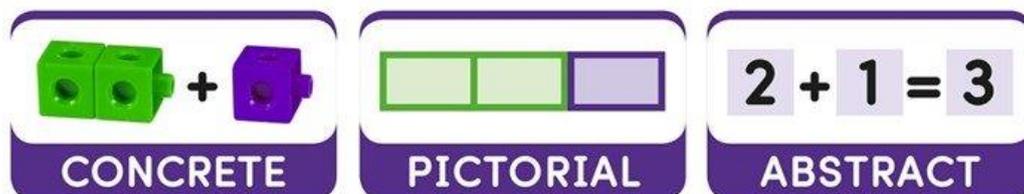
- Reflective staff with excellent subject knowledge who evaluate their teaching and the curriculum regularly against evidence-informed practices and are open to feedback and change;
- Applying The Science of Learning (cognitive science): cognitive load, retrieval, interleaving, instruction, deliberate practice;

- High levels of challenge;
- Strong focus on vocabulary and high standards of oracy;
- Stimulating classroom environments which provide support and encourage independence.

### High standards in maths are produced by:

- Following a mastery approach with high expectation for all pupils (keep up not catch up);
- High quality daily maths lessons which ensure pupils are competent in fluency, problem solving and reasoning;
- Daily retrieval practice, regular Fast Facts sessions and dynamic teacher interventions informed by feedback.

At Stonesfield Primary School we have adopted a mastery approach to maths and follow the [White Rose maths curriculum](#) and long term plan, using additional lesson resources from [Master the Curriculum](#). Teaching maths involves employing a range of mastery approaches that help students to develop a **deep and secure knowledge and understanding** of mathematics at each stage of their learning, so that by the end of every school year children will have acquired mastery of the mathematical facts and concepts they've been exposed to, equipping them to move on confidently and securely to more advanced material. Mastery teaching ensures high expectations for all pupils, and use of the concrete-pictorial-abstract approach. This approach develops children's understanding from **Concrete** (handling objects, resources, manipulatives), on to **Pictorial** (visual images and representations), and then **Abstract** (symbolic stage with more formal strategies).



### Provision

Every pupil will access:

- Daily Maths lessons, five per week, where the core curriculum is learned;
- Fast Facts sessions, 15 minutes three or four per week, to develop key skills in fluency;
- Retrieval practice each morning during registration time to recall previous learning

### Planning

Teachers follow the White Rose long term plan and use and adapt White Rose or Master the Curriculum lesson resources for their pupils. In mixed-age classes teachers will know the pitch and expectations for both year groups, and teach one objective per lesson differentiated for each year group. There will be an opportunity for reasoning and problem solving for all pupils in every lesson. Teachers follow the school's Calculation Policy and consider which pupils would benefit from a Concrete, Pictorial, or Abstract approach in each lesson, either through instruction for all pupils, or as a scaffold or support for some. Teachers plan for the

introduction of specific mathematical vocabulary. Teachers keep a record of curriculum coverage and ensure that all objectives are covered over a two year phase [KS1, LKS2, UKS2]

### Learning environment

Each classroom will have a stimulating learning environment which encourages children to be independent by offering:

- A resource hub for children to access and select appropriate resources and manipulatives;
- A working wall which reflects learning in current unit, Fast Facts, and misconceptions / key learning from previous units. The working wall could include: 'We are learning about ...', Magnificent Misconceptions, Key Vocabulary, Marvellous Mistakes / What Went Wrong, Today's Learning, relevant posters and scaffolds (eg 100 square, place value chart), Maths in the Real World.

### Greater depth

In order to be learned, ideas need to be **understood deeply**; they must not merely be passively received but must be worked on by the pupil, thought about, reasoned with and discussed with others. Pupils working at greater depth will have regular opportunities to apply their learning in a range of contexts. They will be supported to provide high quality reasoning using accurate mathematical language. Provision will be tailored to provide enrichment to deepen and challenge the learners.

### Parental support

Parents have an important role to play in their child's learning and their attitude and competence with maths can influence the learning of their child. The school will encourage parents to support their child with their Fast Facts target and weekly homework.

We will communicate information about the maths curriculum through:

- A Meet the Teacher evening in September;
- An annual curriculum workshop.

We will update parents on their child's progress in maths through:

- Termly parents evenings;
- A written end of year report;
- Sharing Fast Facts and assessment results in a Learning Journal.

### Homework

Pupils will complete a weekly homework task consolidating or extending the learning from the week. Pupils will be encouraged to practise their half-termly Fast Facts target at home.

## **Impact: how do we ensure that children are learning?**

Assessment for Learning is fundamental to raising standards and enabling children to reach their potential. Assessment in Mathematics takes place daily using a range of strategies such as marking and feedback of work and verbal discussions with children.

Assessment of learning is formally completed through a pre and post assessment created by the White Rose Maths Hub for every teaching block. At the end of the term an assessment is also completed which reviews the whole term's objectives. Teachers use assessment information to inform their future planning.

Children's progress is monitored using progress matrices. This data is used by the class teacher, mathematics subject leader, SENCO and headteacher to review children against age related expectations (ARE) based on their key stage starting points. Children who are not on track or are vulnerable to falling behind are identified during pupil progress meetings. Barriers to learning are identified, targets are set focusing on next steps, and interventions are planned and delivered.

The maths subject leader is responsible, alongside the headteacher, in delivering the maths action plan and relevant sections of the School Development Plan. The Governing Body will appoint a link governor who is responsible for monitoring progress against the action plan, and reporting termly to the Governing Body.