Crookham C.E. Aided Infant School

Maths Vision

OUR VISION
From tiny seeds, we grow and learn together. Our school vision is inspired by the parable of the mustard seed. When planted and nurtured by a loving community, every seed can grow and flourish. Our school is like the mustard tree; a place where all are valued and belong. Our children are like tiny seeds; in good soil they can grow as individuals, ready to branch out and be good news in an ever- changing world. Our loving community of gardeners enable each unique child to flourish, removing barriers, and supporting growth. **Little people can do big things through love, courage and joy.**

OUR VALUES		
LOVE	**COURAGE**	**JOY**
OUR BEHAVIOUR PRINCIPLES		
KIND WORDS	**KIND HANDS**	**KIND FEET**

MATHEMATICS INTENT
In Mathematics, we teach for depth and mastery for all pupils, drawing on Education Endowment Fund (EEF) research and recommendations. Our curriculum is designed to develop strong conceptual understanding alongside fluency, reasoning and problem-solving skills. Learning is carefully planned and sequenced in small steps, using a concrete, pictorial and abstract approach to help pupils know and remember more. We scaffold learning through timely feedback, intervention and targeted support. Pupils who grasp concepts quickly are challenged to construct, apply, justify and prove their understanding, deepening their fluency, reasoning and problem-solving within meaningful contexts.

Children with have the opportunity to explore mathematical concepts using a range of concrete	Children will have the opportunities to test their	Children will be challenged in their learning using a small steps	Children will have the opportunities to have maths

Maths Vision

and pictorial approaches to learning which are scaffolded by teachers over time to slowly move towards the abstract as they secure mastery. Teachers will have a rationale for why they are selecting manipulatives to teach each concept.	ideas in a judgement free classroom, finding out first hand and experiencing being a mathematician.	approach, building up knowledge and understanding of concepts.	integrated into their day with opportunities through play, songs and activities to be planned into the day.
Children will have the opportunity to learn a variety of methods for a concept which they can use. Children will be encouraged to use specific methods at times but will also be encouraged to use the methods that they feel most comfortable with at other times.	Children will be assessed in a variety of different ways in order to ensure all children's knowledge and understandings can be shown in their way to get an accurate assessment of their mathematical development in order to help their learning further.	Support will be available for children to help them with their next steps of mathematical development with all children having access to quality first teaching by the classroom teacher throughout learning time.	Children will have the opportunities to work in different ways including in small groups, 1:1 and by encouraging collaborative learning.

MATHEMATICS IMPLEMENTATION

We design our curriculum so that it reflects our core values, individual school context and the needs of our children, as well as delivering the statutory requirements of the Early Years Foundation Stage Framework (EYFS) and the National Curriculum. We have made deliberate curriculum choices driven by our curriculum intent.

Learning will be planned and delivered through:	Quality First Teaching (QFT) with appropriate challenge and support	Active and hands-on learning through concrete, pictorial & abstract experiences, inside and outside	Consistent pedagogical approaches based upon Rosenshine's principles of effective instruction (Crookham Toolkit)	Rich oracy opportunities for formal and informal talk	Engaging hooks, carefully planned learning journeys, enrichment and purposeful outcomes	Ordinarily Available Provision (OAP) which meets individual needs

Learning Animals (BLP 4 Rs)	**Reflective Owl** Reflectiveness	**Resourceful Squirrel** Resourcefulness	**Tough Tortoise** Resilience	**Team Ant** Reciprocity

Maths Vision

<table>
<tr><td rowspan="11">Learning will provide a broad and balanced mix of these subjects</td><td colspan="4">EYFS: Early Years Foundation Stage Curriculum (Reception Year)</td></tr>
<tr><td colspan="2">Prime Areas of Learning</td><td colspan="2">Specific Areas of Learning</td></tr>
<tr><td colspan="2">Communication & Language</td><td colspan="2">Maths</td></tr>
<tr><td colspan="4">KS1: Key Stage 1 (Years 1 and 2)</td></tr>
<tr><td colspan="4">Mathematics Subject Content</td></tr>
<tr><td>Number and Place Value</td><td>Addition and Subtraction</td><td>Multiplication and Division</td><td>Geometry</td></tr>
<tr><td>Measure</td><td>Position and direction</td><td>Fractions</td><td>Statistics</td></tr>
<tr><td colspan="4">Mathematics Disciplinary Knowledge
The disciplinary knowledge and skills needed to work as a Mathematician include:</td></tr>
<tr><td colspan="2"><u>Mathematical Reasoning</u>
Pupils will develop the ability to reason mathematically by showing an understanding of how and why an answer is correct o incorrect. They will compare methods, identify patterns and make generalisations. They will be taught to test their ideas and check their reasoning using a range of methods e.g., inverse operations or using ‘POYLA’s’ reasoning method.</td><td colspan="2"><u>Thinking like a Mathematician</u>
Pupils learn that mathematics is about making sense of numbers, shapes and patterns. They are encouraged to explore, notice relationships and understand that mathematics involves thinking, not just finding answers whilst learning a range of methods to help aid their understanding.</td></tr>
<tr><td colspan="2"><u>Mathematical Problem Solving</u>
Pupils apply their mathematical knowledge to solve problems in a range of contexts. They choose appropriate strategies, test ideas and check their solutions. The children will work in groups, with adults and independently as they build up their problem-solving understanding.</td><td colspan="2"><u>Working Systematically</u>
Pupils learn to approach mathematical tasks in an organised and logical way. They work through problems step by step, keep track of their thinking and recognise the importance of order when solving problems, such as when counting, calculating or exploring patterns.</td></tr>
<tr><td colspan="2"><u>Mathematical Language and Communication</u>
Pupils use accurate mathematical vocabulary to explain their thinking. They talk about their methods, listen to others and learn to justify and clarify their ideas using correct terminology with the</td><td colspan="2"><u>Representing Concepts</u>
Pupils learn to represent mathematical concepts in a range of ways using concrete resources, pictorial models and abstract symbols. They understand how different representations show the same</td></tr>
</table>

Maths Vision

<table>
<tr><td></td><td colspan="2">help of given STEM sentences that are purposefully planned into the lesson by the teachers.</td><td colspan="3">concept and use these to support and deepen understanding. The children will have their learning scaffolded as they move from the concrete to abstract over time.</td></tr>
<tr><td rowspan="2">Our School specific components</td><td>Crookham Toolkit
(‘How we teach here’)</td><td>EY Maths</td><td>School Library Service</td><td>Oracy Approaches</td><td>NCETM</td></tr>
<tr><td>Education Endowment Foundation</td><td></td><td></td><td></td><td></td></tr>
<tr><td colspan="6">CURRICULUM IMPACT</td></tr>
<tr><td colspan="6">MEASURING IMPACT
We draw together evidence from a variety of sources in order to evaluate how well children have learned, remembered and applied the intended knowledge, skills and attributes. These include:</td></tr>
<tr><td colspan="2">Reception Baseline Assessment and EYFS outcomes</td><td>Summative Assessment</td><td>Formative Assessment</td><td colspan="2">Team Subject Reviews</td><td>External validation and inspection reports</td></tr>
<tr><td>Observations of children in various aspect of school life</td><td>Governing monitoring evidence</td><td>Stakeholder Questionnaires</td><td colspan="2">Learning Walks & Lesson Observations</td><td>Book Looks</td><td>Pupil conferencing</td></tr>
</table>