



Mathematics Intent, Implementation and Impact Statement

Intent

The mathematics curriculum at Old Park School has been designed to ensure that all pupils develop their skills in the fundamentals of mathematics, reasoning and problem solving with the appropriate subject specific knowledge, skills and understanding in line with their stage of development. The long-term sequence of learning is designed to offer a broad and balanced mathematics curriculum through coverage, experience and progression. All pupils are supported to develop firm foundations across the mathematical curriculum, progressing through appropriate sequences of learning which build upon prior knowledge as they move through their school life in preparation for adulthood.

Pupils develop their mathematical knowledge and understanding using the concrete, pictorial and abstract approach (CPA). Initially exploring physical objects using a multisensory approach, moving to pictorial representations then moving on to abstract concepts such as equations. They are encouraged to develop their communication skills and use and extend their vocabulary for mathematical elements that are pertinent to their own learning needs.

Implementation (Long-Term Sequence of Learning)

The mathematics curriculum is written in consultation with and enhanced by the following:

<p>Pre-subject specific</p>	<p>Pathway 1</p> <p>Multi-sensory Foundations for Play, Learning and Life</p> <p>Pathway 2</p> <p>Learning to Play, Learn and Live</p>	<p>OPS Scales 1-2 (Pathway 1)</p> <p>OPS Scales 3-4 (Pathway 2)</p> <p>Development Matters Understanding the World: Birth to 3</p> <p>EHCP Personal Provision Plans</p> <p>1st Steps with Numicon in the Nursery</p>
<p>Subject specific</p>	<p>Pathway 3</p> <p>Roots</p>	<p>OPS Scales 5-9</p> <p>Development Matters: Mathematics 3-4 year olds</p> <p>Skills, Concepts, Knowledge, Vocabulary linked to Maths Programmes of Study, National Curriculum England</p> <p>EHCP Personal Provision Plans</p> <p>Numicon Firm Foundations</p>

Subject specific	Pathway 4 Shoots	OPS Scales 10-14 Development Matters: Mathematics Reception age students into KS1 expectations Skills, Concepts, Knowledge, Vocabulary linked to Maths Programmes of Study, National Curriculum England EHCP Personal Provision Plans Numicon Year 1 and Year 2 teacher handbooks
Subject specific	Pathway 5 Blossom	OPS Scales 15 KS1 into early KS2 expectations Skills, Concepts, Knowledge, Vocabulary linked to Maths Programmes of Study, National Curriculum England EHCP Personal Provision Plans Numicon Year 3 teacher handbook

Long Term Plan – Pathway 1 and Pathway 2

Week	1, 2 and 3	4 and 5	6	7, 8 and 9	10 and 11	12
Autumn	Number: Place Value / Counting / Recognition / Representation	Measurement: Length and Height	Assessment and Consolidation	Number: Addition and Subtraction	Measurement: Money	Assessment and Consolidation
Spring	Number: Place Value / Counting / Recognition / Representation	Measurement: Capacity, Volume and Time	Assessment and Consolidation	Number: Multiplication and Division	Geometry: Shape, Pattern and Colour	Assessment and Consolidation
Summer	Number: Addition and Subtraction	Measurement: Mass and Weight	Assessment and Consolidation	Number: Multiplication, Division and Fractions	Geometry: Position and Direction	Assessment and Consolidation

Long Term Plan – Pathway 3

Week	1, 2 and 3	4 and 5	6	7, 8 and 9	10 and 11	12
Autumn	Number: Activity Cards 1-3	Measurement: Length and Height	Assessment and Consolidation	Number: Activity Cards 4-6	Measurement: Money	Assessment and Consolidation
Spring	Number: Activity Cards 7-9	Measurement: Capacity, Volume and Time	Assessment and Consolidation	Number: Activity Cards 10-12	Geometry: Properties of Shape	Assessment and Consolidation
Summer	Number: Activity Cards 13-15	Measurement: Mass and Weight	Assessment and Consolidation	Number: Activity Cards 16-18	Geometry: Position and Direction	Assessment and Consolidation

Long Term Plan – Pathway 4 and Pathway 5

Week	1, 2 and 3	4 and 5	6	7, 8 and 9	10 and 11	12
Autumn	Number and Place Value (Numicon – Securing Foundations / Getting Started)	Length and Height (Numicon – Measurement)	Assessment and Consolidation	Number and Geometry (Numicon – Calculating, Pattern and Algebra & Geometry)	Money (Numicon – Measurement)	Assessment and Consolidation
Spring	Number and Place Value (Numicon – Numbers and the Number System)	Capacity, Volume and Time (Numicon – Measurement)	Assessment and Consolidation	Number and Geometry (Numicon – Calculating, Pattern and Algebra & Geometry)	Statistics	Assessment and Consolidation
Summer	Number and Place Value (Numicon – Numbers and the Number System)	Mass and Weight (Numicon – Measurement)	Assessment and Consolidation	Number and Geometry (Numicon – Calculating, Pattern and Algebra & Geometry)	Position and Direction (Numicon – Geometry)	Assessment and Consolidation

Impact

Education Health Care Plans

There are clear links that impact across all four areas of the EHCP within mathematics.

- **Communication:** using preferred modes of communication to use, understand and explain mathematical vocabulary, concepts, reasoning and problem solving.
- **Cognition and Learning:** developing mathematical knowledge, skills, understanding and problem solving across the curriculum and in real-life situations. Developing use of mathematical equipment, recording methods and use of technology.
- **Social, Emotional and Mental Health:** using mathematical knowledge, skills and understanding to promote participation within a community in a range of real-life situations linked to handling money, telling the time, sequencing of events, sharing and recognising and using language related to days, months, dates etc.
- **Sensory and Physical:** using senses for handling and exploring objects and using mathematical equipment. Using mathematical knowledge, skills and understanding to develop gross, fine motor and self-help skills within measurement and geometry.

Pre-Subject Specific Learners

Pre-subject specific learners develop their knowledge, skills and understanding of mathematics through multisensory mathematics and early mathematics sessions for our Pathway 1 and 2 learners respectively. Pre-subject specific learners work at the earliest levels of cognitive development and access a multisensory and practical approach to early mathematics. We use the five areas of the Engagement Model; exploration, realisation, anticipation, persistence and initiation to identify linear and lateral progress of knowledge, skills and concepts. We use Willow Dene assessment frameworks for pre-subject specific learners.

Subject Specific Learners

Subject specific learners develop their knowledge, skills and understanding of mathematics through discrete termly topics which offers a broad and balanced curriculum. They are supported to make connections across mathematical ideas to develop fluency, reasoning and problem solving and to apply their mathematical knowledge to other subjects. Pathway 3 learners (previously P4 – P8) develop early knowledge, skills and understanding before progressing into more formal study of the subject for our Pathway 4 learners (National Curriculum KS1 outcomes). A small percentage of our pupils move onto Pathway 5 (National Curriculum Year 3 outcomes). We use subject specific scales to assess progress for subject specific learners.

Preparation for Adulthood

During an Old Park School stakeholder consultation on Post 19 hopes and aspirations across all pathways, a variety of responses were received. The following are addressed through the maths curriculum:

- To learn and apply functional maths skills.
- Take part in thinking and problem- solving skills.
- To have the confidence to use and apply their skills and knowledge in different settings.
- To have the desire to continue to learn, want to investigate and find out new and different things.
- Solve problems and implement skills in real life contexts.
- Demonstrate resilience.
- To understand the concepts of time including 'now' and 'next'
- Money - to understand the options I can and cannot afford.
- To use numbers in practical situations.
- Know and understand 'now' and 'next'

Students in the 14-19 stage will also take part in and achieve accredited maths units as part of their ASDAN or OCR qualifications.