

Curriculum Statement for Mathematics

<p>Intent</p>	<p>At Brookfields Mathematics is integral to everyday life by which we can explore, investigate, understand and enjoy the world. Mathematics underpins how we experience the world; it involves an understanding of quantity, space, time, patterns, relationships, order and change. Our overarching aim is to equip pupils with the key /core knowledge that they can build on through their future learning.</p> <p>Our aim is to help every pupil to achieve their full potential in developing their knowledge, skills and understanding in mathematics, which will support their practical life skills and further learning. We endeavour to ensure that our pupils develop a positive and enthusiastic attitude towards mathematics that will stay with them.</p> <p>Within mathematics our pupils are encouraged to make choices, respect other's ideas, develop sharing and turn taking skills. Pupils' contributions are valued and celebrated during lessons, assemblies and within home/school books. In mathematics we focus on a very practical approach to learning, children are encouraged to take chances, try out new things and develop resilience and a 'can do' attitude to their learning.</p> <p>Children are planned for very much on an individual basis, according to their levels of attainment and individual needs.</p>
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The teaching and learning of knowledge is carefully planned, sequenced and delivered to allow pupils maximum opportunity to learn, consolidate and expand their understanding. Teaching is of a very high quality and is informed by rigorous assessment practices whilst maximising available resources and opportunities.

Pupils follow 3 distinct pathways: -

- Early Learners (EYFS)
- Explorers (Development of prerequisite skills)
- Adventurers (Subject Specific curriculum)

The long-term plans (see table below) provide guidance on concept coverage; however it is important to retain flexibility and teachers are encouraged to spend more time on particular concepts if they feel it is required. We plan and teach concepts following a small steps approach, with lots of repetition to embed skills, as well as links to cross curriculum learning and learning beyond the classroom.

The following schemes are available to support / guide teachers in their planning: -

- 'White Rose Mathematics Scheme of Learning'
- 'Numicon'
- 'Kangaroo Mathematics'
- 'Equals' Semi-formal scheme of work 'My thinking & problem solving'
- 'Equals' Formal Mathematics Scheme of work KS1 & Mathematics KS2

For children following the **Explorer pathway** pupils will work on anticipation, response, tracking, exploration, early number skills, early counting and calculation skills, pattern & problem solving from *Brookfield's Skills Matrix – Explorer Pathway*.

The pupils on the **Adventurer pathway** will follow the semi-formal to formal curriculum from the *Adventurer Pathway Skills Matrix*; it may also be relevant to follow 'Early Years Development Matters'.

Short term planning identifies the lesson objectives to be taught that week, taking into consideration evaluations from previous lessons, responding to the pupil's achievements, areas of interest and areas for development.

Effective communication is paramount and embedded within everything the pupils are taught within mathematics. Where appropriate cross curricular links are made with other subjects and with learning opportunities outside the classroom whenever possible, thereby developing mathematical understanding of concepts in everyday life. Examples of this can be found in the 'Gallery' section of our school website.

ICT is an integral part of teaching and learning in mathematics. There are a range of internet-based programmes and iPad apps available. Whilst the use of the internet is a valuable resource which allows teachers to access information and an ever increasing variety of educational resources, the use of the internet should be in line with the schools E-safety policy (and website should always be checked before using in class).

Mathematics resources are stored both centrally and in classrooms. Everyday basic equipment is kept in individual classrooms, whilst larger concept specific equipment is stored centrally. New resources are purchased annually according to class / pupil requirements.

The mathematic subject leader will identify and respond to training needs and opportunities.

Impact	<p>As a result of the well-considered curriculum, high quality teaching and assessment and individualised approaches pupils achieve exceptionally well. Pupils develop knowledge and skills at a level appropriate to their development alongside all of the other qualities that we strive for all children to learn whilst on their learning journey at Brookfields.</p> <p>Formative assessment takes place each lesson, whereby teachers closely monitor impact, identify pupil's knowledge and understanding or areas for development and plan subsequent lessons accordingly.</p> <p>In terms of formative assessment the school assesses progress using B squared assessment tools: - EYFS levels, Engagement steps, Progression steps and NC steps, as appropriate. This allow pupils to be assessed according to their individual learning pathway.</p> <p>Pupil's are baselined when they start school and assessed termly each year. Targets are set and progress is measured against pupil's individual targets. Pupil progress meetings take place in order to monitor progress and identify areas that may require support or further development. Pupil attainment levels are passed on to the next class and data is transferred between schools in order to support smooth transitions to the next stage of education.</p> <p>Moderation takes place internally and within cluster groups.</p> <p>The mathematics co-ordinator monitors teaching and learning, curriculum and skills coverage through planning and work scrutinises, learning walks and analysis of data. Findings are collated and feedback given.</p>
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Long Term Plan:-

Early Learners

Autumn	<p>Numbers and Place Value (Numbers to 5)</p> <p>Addition & subtraction (Sorting)</p> <p>Number & Place Value (Comparing Groups)</p> <p>Addition & Subtraction (Change within 5)</p>
Spring	<p>Calculation: addition & subtraction</p> <p>Measuring [length, heights, mass/weight, capacity & volume, time]</p> <p>Exploring Fractions</p> <p>Position, direction & movement</p>
Summer	<p>Exploring money</p> <p>Calculation: multiplication & division</p> <p>Numbers & the number system</p> <p>Calculation: addition & subtraction</p>

Explorers

Autumn	Experience number 2D & 3D shape Big and small Full and empty
Spring	Experience number 2D & 3D shape Long and short
Summer	Early number & calculation Matching Heavy & light

Adventurers

Autumn	Number: amounts to 5 Size Shape Capacity Time
Spring	Number: amounts to 10 Shape & pattern Position Length
Summer	Number & calculation (1 more / 1 less) Shape: matching & sorting Weight Ordinal numbers

National Curriculum 1

Autumn	Number: Place value (within 10) Number: Addition and subtraction (within 10) Geometry: Shape Number: Place value (within 20)
Spring	Number: Addition & subtraction (within 20) Number: Place value (within 50) Multiples of 2, 5, 10 Measurement [length & height] Measurement [weight & volume]
Summer	Number: Multiplication & division. Reinforce multiples of 2, 5, 10 Number: Fractions Geometry: Position & direction Number: Place value (with 100) Measurement: Money Measurement: Time

National Curriculum 2

Autumn	Number: Place value Number: Addition and subtraction Measurement: Money Number: Multiplication & division
Spring	Number: Multiplication & division Statistics Geometry: Properties of shape Number: Fractions Measurement: Length & height

Summer	Geometry: Position & direction Problem solving & efficient methods Measurement: Time Measurement: Mass, capacity & temperature Investigations
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