

The Maths Curriculum at Yeadon Westfield Infant School

Intent

At Yeadon Westfield Infant School we believe that **all** pupils are entitled to a full, stimulating, and well-structured curriculum based on the Mathematics Programmes of Study (National Curriculum 2013) and the EYFS Statutory Framework. We believe the teaching of mathematics should develop a child's ability to use numbers, shapes and measures effectively and competently in everyday life and should prepare them for the future. We aim to build their resilience when working mathematically, to help them develop an appreciation and enjoyment of mathematics and to inspire them to become the mathematicians of the future.

As an infant and nursery school, we are very much centred on the first steps on this mathematical journey. Through our teaching of number and calculations as well as "wider maths", we aim to:

- develop in very young children an understanding of **amounts** and number
- develop children's understanding of calculations from the concrete through pictorial to abstract
- move children from counting to calculating
- develop children's fluency with basic number facts (Learn Its)
- develop children's fluency in mental calculation
- develop children's fluency in the use of written methods
- develop children's understanding of the = symbol through use of modelled alternative language such as "has the same value as"
- teach children to look for patterns and make connections
- develop children's skills in conjecturing, reasoning and problem solving
- help children become confident in choosing and using a strategy that will get them to the correct answer as efficiently as possible
- help children to understand mathematical structure and to work systematically
- teach children to use correct mathematical terminology and speak in full sentences
- contextualise mathematics

We believe that following a rigorous and child centred curriculum which runs from the beginning of nursery allows us to ensure **all** pupils are given the opportunities they need to make progress in mathematics, whether they are disadvantaged, have special educational needs, or have delays or gaps in learning.

Implementation

We have chosen to follow the Big Maths curriculum following the termly outlines given on our website (<https://www.westfieldinfants.co.uk/page/mathematics/62270>) for each year group from nursery through to Year 2. Big Maths on-line provides a planning resource which allows us to follow each learning objective through, from the beginning of nursery to the end of Year 2 and beyond. Each small step the children take on their learning journey can be identified, misconceptions can be addressed, knowledge is carefully and systematically built up and mastery opportunities can be provided at every stage.

From the beginning, nursery children have regular mathematics teaching together as well as through the areas of provision and this is built on in reception. There is huge emphasis on language acquisition throughout.

We follow this pedagogy because we believe that an early understanding of the concept and language of **amounts**, and of number and the number system, lay the foundations for more formal aspects of calculations. Further, we believe this understanding must be combined with secure knowledge of basic number facts and increasingly mature fluency and reasoning using these number facts. Children are taught

from EYFS using concrete methods that numbers can be made in different ways and to reason about what is possible and what is not. They are taught to memorise number facts and have a quick response to those facts. These number facts are called **Learn its** and the fluency and reasoning that come from them are called **It's Nothing New**. Children are taught that their **Learn its** will help them solve many calculations, and can be applied to any object, amount or unit of measure, as well as a wide range of other strategies for calculations that will support them further. Please see our Calculations Policy

https://www.westfieldinfants.co.uk/serve_file/848263

There will be active participation in acquiring a range of mathematical skills, involving individual, group and class work. Opportunities will also be identified across the curriculum so that the children can use their mathematical skills in context.

Children across school (from Nursery to Year 2) will receive a short daily age-appropriate whole class CLIC session. CLIC sessions are short whole class interactive lessons covering aspects of **C**ounting, **L**earn its, **I**t's nothing new, and **C**alculations. These sessions build up children's skills in small incremental steps. All children are engaged in joining in, remembering, answering, writing down and building up their short-term and long-term memories for essential knowledge and skills. Further focused mathematics teaching on all aspects of the curriculum will then be delivered through activities in the areas of provision in nursery, building up through provision and focused activities in Reception to full mathematics lessons throughout KS1.

Assessment:

- all lessons will provide opportunities for formative assessment
- children in Early Years will be assessed against the statements in Development Matters and the EYFS Statutory Framework
- children in KS1 will have weekly Learn its checks and regular small written assessments of all aspects of the mathematics curriculum using Big Maths resources
- children in Year 2 will take part in end of key stage assessments against national expectations in 2023 and similar assessments thereafter
- pupil progress meetings take place termly and all children's progress in mathematics is discussed, actions are agreed, and targets reviewed

Monitoring is carried out to ensure staff and children are confident with teaching and learning mathematics. Staff are kept up to date with developments in the teaching of Big Maths, with work being done in the ALPT and advice from the Department of Education.

Impact

By the end of KS1, children should:

- have a sense of the size of a number and where it fits into the number system
- know by heart the 36 essential addition number facts and the 2-, 5- and 10-times tables (see termly objectives)
- use what they know by heart to figure out other number facts mentally
- calculate accurately and efficiently, both mentally and with pencil and paper, drawing on a range of strategies
- make sense of number problems, and recognise the operations needed to solve them

- explain their methods and reasoning using correct mathematical terms
- judge whether their answers are reasonable and have strategies for checking the
- suggest units for measuring and make sensible estimates of measurements
- explain and make predictions from the numbers in graphs, diagrams, charts and tables

Learning is expected to be of high quality with children putting in their best effort. Children should enjoy mathematics lessons and be keen to challenge themselves regardless of stage of development. They should leave our school ready for the next stage of their learning in KS2.