# Poulner Vision for Maths

Poulner Infant School and Nursery

At Poulner Infant School & Nursery, we want our children to know that Mathematics is a creative and highly interconnected discipline and to broaden their knowledge and understanding of how mathematics is used in the wider world by making rich and varied real life connections. We foster positive attitudes, fascination and excitement of discovery through the teaching and learning of mathematical concepts in line with the current legal requirements of the Foundation Stage (EYFS) and the National Curriculum. We develop a 'can do' attitude in our children, especially when problem solving and enable our pupils to confidently reason about their mathematics, using a suitable range of mathematical language, recognising its importance for communication and deep thinking.

| Poulner Values | Creativity | Challenge | Collaboration |
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## Intent

- To Provide a foundation for understanding the world
- Develop the ability to reason mathematically
- Foster an appreciation of the beauty and power of mathematics
- Empower children with a sense of enjoyment and curiosity about the subject

Support children to challenge themselves

Learning accessed within personal ability using concrete, pictorial or abstract resources

Throughout the delivery of our Mathematics curriculum we aim to link it to the idea that mathematical ability is not something that is fixed, but that develops over time with practice.

## Implementation

- Our maths curriculum is recursive, following the HAM model. this allows children to make links and revisit key concepts throughout the year
- Our children will develop confidence and mental fluency with whole numbers, counting and place value through the use of regular recall and retrieval practise
- Teachers plan lessons working with numerals, words and the four operations, including with practical resources e.g. concrete objects and measuring tools
- Teaching of Geometry to develop the ability to recognise, describe, draw, compare and sort different shapes creatively and use the related vocabulary
- Children will use a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money and learn to measure these using a range of scales
- Opportunities for the children to reason and problem solve are carefully planned by teachers enabling children to use their maths in everyday contexts
- We provide opportunities for children to support each other and collaborate through carefully planned activities
- Children who grasp concepts rapidly will be challenged by being offered rich and sophisticated problems before any acceleration through new content
- Children who are not sufficiently fluent with earlier material will be given the opportunity to consolidate their understanding, including through additional practice and interventions, before moving onThe children will be assessed regularly giving teachers a strong understanding of their current knowledge and understanding, but also highlighting any future needs.

## Impact

The overall impact of our curriculum should result in pupils who

- are fluent in the fundamentals of mathematics, due to varied and frequent practice with increasingly complex problems over time, and who have developed conceptual understanding and the ability to recall and apply knowledge rapidly and accurately
- can reason mathematically by following a line of enquiry and who can develop an argument, justification or proof using mathematical language
- can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing levels of challenge, including breaking down problems into a series of simpler steps, persevering and collaborating in seeking solutions
- can understand that Mathematics is an interconnected subject in which they can move fluently between different representations of mathematical ideas. For example, they should be able to apply their mathematical knowledge to science and other subjects.

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| <br>I will be resilient and not be scared to make mistakes.<br>I will stay focussed on my learning, even if it gets tricky.<br>I will persevere, even if it isn't what I thought it would be after my first attempt. | <br>I will reflect, make changes and try again.<br>I will ask questions to help me to improve or make changes.<br>I will challenge myself to evaluate my work and make amendments. | <br>I will find a strategy that best helps me solve a problem.<br>I will look for possibilities to enhance my creativity and deepen my knowledge. | <br>I will listen to opinions.<br>I will work collaboratively to reach the best outcome for all.<br>I will support those around me. | <br>I will show respect to my peers by listening.<br>I will be kind and helpful to those around me.<br>I will share my ideas to support my peers. |