



Alwyn Infant School Maths Policy

At Alwyn Infant School we believe that teaching maths is important as children need to learn mathematical skills and understanding to use in their everyday lives. Maths teaching should provide children with opportunities to practise and improve their reasoning and problem solving skills as well as allowing them to learn essential calculation skills.

Our aim is to promote enjoyment of maths, understanding of maths and build children's confidence in doing maths through the use of concrete resources, good and correct use of maths vocabulary and helping children to make connections between what they know and what they are learning.

Curriculum:

We follow the requirements of the new Early Years Foundation Framework (2021) and the National Curriculum (2014). We use the White Rose maths resources to guide our planning. We follow their suggested order of units of work and adapt these according to the needs of our children. Following the White Rose Resources, the EYFS Framework and the National Curriculum naturally allow for progression across maths and the different year groups.

Teachers use and adapt the White Rose resources alongside the EYFS Framework, National Curriculum and the Alwyn Calculation Policy to ensure coverage of the curriculum objectives and progression in calculation strategies across the year groups.

Our overall aim is to work towards the National Curriculum aims for maths, ensuring that all children at Alwyn become fluent, develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately. We consider these aims in how we plan and teach maths at Alwyn. To develop fluency in maths, children need to have opportunities to apply their knowledge to a range of problems, develop confidence and accuracy, build number sense and have a deep understanding that leads to efficiency. This is why we value the importance of correct mathematical language, making deep connections and using the Concrete Pictorial Abstract (CPA) Approach.

How we teach:

At Alwyn we allow time to develop maths skills by providing a daily maths lesson in each year group. We also use the Concrete Pictorial Abstract (CPA approach) in order to build children's understanding. We model what numbers and calculations look like using concrete apparatus that children can physically manipulate. Children apply their understanding from using concrete resources to representations such as drawings and to abstract calculations.



Using concrete resources to introduce new maths concepts is particularly important to help children create a visual representation and really understand the maths that they are learning. However, concrete resources are not only used when introducing a new concept. They are also used when practising skills and are often used alongside representations. We encourage the use of visual resources by all children and help children to choose the best concrete or pictorial representation for the maths they are working on.

Our maths lessons begin with warm ups. These allow opportunities for children to remember and practise past learning, assess what children know or to help children make connections with previous learning and new learning. New concepts or learning are introduced using discussions between the teacher and the children or during activities. This allows opportunities for mathematical vocabulary to be discussed and the use of equipment to be practised by the children or modelled by the teacher. Summaries are used either during the lesson at points where teachers realise a need to respond to children's needs or misconceptions or to recap what has been learnt in a lesson. When a summary is used at the end of the lesson, it might include a hint of what the next day's maths learning will include. If a concept isn't grasped in a lesson, future lessons are adapted to allow time for the skill or concept to be looked at and practised further.

Planning:

When planning teachers help children to make connections to their previous learning. They aim to help children to develop connections between these four strands of mathematical experience: symbols, pictures, concrete experiences and language. Therefore, teachers aim to include the following in their maths planning:

- key questions to ask to direct children's learning
- modelling and using mathematical language correctly, for example using stem sentences to help the children build understanding and speak through their maths or asking the children to define mathematical vocabulary
- planning in scaffolds to support children as required
- breaking tasks down into smaller steps
- adapting planned weekly lessons and activities based on children's understanding and having regular dialogues with other teachers in their year groups to inform further planning
- include problem solving opportunities across all units of work
- include challenge
- celebrating mistakes and addressing conceptions



How we assess:

Teachers are constantly assessing children during maths lessons and use this to inform further teaching. They observe children and realise who will need additional support with the concept being covered. They check on these children in follow up lessons. Teachers spend time assessing previous learning in a variety of ways. These include discussions with pupils, formal written assessments and observing children's answering during warm ups.

In Key Stage 1, we complete assessment grids to track progress made over a term of maths teaching. In EYFS assessment is ongoing and regularly updated on assessment grids throughout the year leading up to achieving the Early Learning Goal.