

Maths curriculum Intent, Implementation, and Impact

Intent

At Arnside National School, our intent in Maths is for pupils to experience a high-quality maths education that provides a foundation for understanding the world and a genuine interest and curiosity about mathematics. Our aim is that children develop a deep understanding and knowledge of number sense and become fluent in the fundamentals of mathematics. We want our pupils to develop their conceptual understanding and develop the ability to recall and apply knowledge accurately and rapidly. We also want pupils to be able to reason mathematically by following a line of enquiry, conjecturing relationships and making generalisations.

Our aim is for pupils to gain procedural knowledge through enriching experiences. Over the past few years we have implemented a 'Teaching for Mastery' approach and we believe that everyone, no matter what their starting point is, can learn and improve at maths. All pupils will be encouraged to believe that by working hard, persevering and adopting a growth mindset approach to mathematics, including seeing the value of making mistakes and of learning from them, they can succeed in maths.

Our intent is to meet the statutory requirements as specified in the National Curriculum. Maths lessons are taught through our chosen scheme of learning White Rose Maths, that is carefully adapted to build upon prior learning in small, manageable steps. Our curriculum is designed to support the development of reasoning and problem solving alongside fluency to ensure challenge and ambition for all pupils. Longer periods of time is spent on each area in order to enrich and embed ideas, enabling pupils to make connections. Pupils who grasp concepts rapidly are challenged through being offered rich problems and tasks that further deepen their understanding. Lessons will be adapted for children when needed (e.g. those with identified cognition and learning SEND).

Key learning points are identified during planning and a clear journey through maths is evident in lessons and reflected in our class book. Questions and discussions will probe pupils' understanding throughout and pupils will be assisted in explaining their thinking, using precise mathematical language, and using full sentences to develop an argument, justification, or proof. Misconceptions are identified during the planning process and during lessons and used as opportunities for learning.

We aim to develop all aspects of fluency through lessons. As a school, we are focusing on developing instant recall of key facts, such as number bonds, multiplication, and addition facts. Increasing fluency in basic facts allows children to free working memory and to solve more complex problems.

We believe Maths to be important in preparing pupils for the future in terms of life skills and career opportunities. Pupils will see maths across the curriculum and will develop and apply their skills in different contexts.

Implementation

At Arnside National Primary School maths is delivered daily during the hourly maths lesson. Our curriculum overview shows the order in which topics are taught across the year groups. These lessons cover the National Curriculum objectives, broken down into small steps. Lessons are adapted and sometimes individual lesson plans are put in place for children identified as needing additional support.

Additionally, number fact fluency is practiced regularly through activities such as, times tables rockstars, quizzes, PE warm-ups, whilst lining up and answering the register. Opportunities for cross curricular maths are regularly identified and planned for in other subjects.

In the EYFS, the curriculum overview shows the order in which lessons are taught. Whole class inputs are delivered with follow on small group work. Maths games class sessions/fluency sessions are used to reinforce prior learning. Pupils also learn through child-initiated maths play by accessing activities which are used to practice and consolidate their learning.

Impact

Pupils talk enthusiastically about their maths and this is evident in the conversations they have with teachers and with each other. The immediate impact of a Arnside Maths lesson will be apparent within the lesson. The opportunities for discussion, engagement in talk and questioning allow teachers to quickly ascertain the pupils' level of understanding and provide further guidance as necessary. Much of the pupils' work is marked "live" giving pupils instant feedback on their efforts to further their learning.

Where necessary and possible, intervention is provided as quickly as possible to help maintain the intention that the whole class is working together.

The progress that pupils make over time is clear evidence of the impact of the teaching and learning. To measure this progress, teachers integrate a combination of formative assessment (gathered during discussions, questioning, resourced activities, paired and independent tasks) and summative assessment carried out at the end of each block. Assessments are updated on Scholarpack and this is used to inform half termly assessment and to identify gaps. Pupils with significant gaps might have individual targets identified on their SEND Support Plans.

Pupils at Arnside National Primary also participate in the external assessments of SATs during Year 2 and 6 and the Multiplication Tables check at Year 4. Although our intent is to enable learners to develop deeper mathematical understanding (rather than just meeting the requirements of tests), these assessments are an important measure of the impact of the teaching and learning at Arnside. Pupils in the relevant year groups also undertake practice tests in the build-up to the external tests which provide additional evidence for the teacher's judgement. In some cases, it may be identified that because of a pupil's additional needs, they will not be entered for the external tests. This would be agreed with parents.