

# Subject: Maths

## The 3 I's - Our Vision for Our Subject

### Intent:

At Athersley South Primary we recognise the important role maths plays in all of our lives. We strive to provide a high-quality mathematics education within a mastery approach which develops a solid understanding of mathematical concepts and equips children with the skills, knowledge and confidence they need to be successful in further education and in their future lives

The National Curriculum for mathematics intends to ensure that all pupils:

- Become fluent in the fundamentals of mathematics.
- Reason mathematically.
- Can solve problems by applying their mathematics.

We deliver the National Curriculum for maths drawing on the DFE Ready to Progress statements and the small steps from the NCETM curriculum prioritisation materials to support all of our pupils in making good progress in their maths mastery journey.

### Implementation:

At Athersley South Primary School, we aim for children to achieve well within and across lessons by delivering a high-quality maths curriculum within the *Teaching for Mastery* approach. Planning, which is supported by NCETM maths resources and small steps, ensures whole school coverage with progression in number fluency woven into all stages. Teachers ensure children are building on new learning with retrieval practice and spend focused time exploring a unit in a logical and sequenced order so that pupils are extending and building on their knowledge and skills throughout all units in maths. Our maths lessons utilise a range of fluency, reasoning and problem-solving style questions in a practical and engaging manner.

We believe that building strong foundations in number fluency enables children to access and to enjoy a full and rich maths curriculum. In EYFS and KS1, we aim to secure number facts in addition and subtraction using Number Sense Maths to support the delivery of this and in KS2, we aim for securing fluency in multiplication and division facts using TT Rockstars to engage and track our pupil's progress. Maths ambassadors from UKS2 have taken on a valuable role in supporting our LKS2 learners during regular lunchtime clubs. Children in KS2 also take home a homework book. The questions are broad and varied and allow children to consolidate their maths skills at home and share learning with their families. We currently teach maths in small groups in EYFS and in mixed attainment classes from Y1-Y5 with Y6 being split into two target groups.

As part of everyday teaching, staff employ a variety of methods to ensure children are developing a deep understanding of the maths that is being taught.

- Manipulatives (practical maths) and visual aids including the use of ICT, support and scaffold the understanding of new concepts.
- Arithmetic skills are developed daily with number sense in EYFS and KS1 and daily fluency in KS2. This builds fluency and confidence, reducing the cognitive load and increasing success when applying these skills to more complex problems.
- Fluency, problem solving and reasoning opportunities are provided within a lesson in order to give learners the skill and understanding needed to attempt a range of challenging mathematical problems.

In order to ensure progress can be monitored and tracked, there are 6 whole school assessment points where the children in Y1-Y6 take either a Rising Stars or NFER assessment. Data from these is analysed and used in a rigorous pupil progress evaluation. Teaching is monitored and supported by the subject leader, SLT and trust leaders through lesson observations, planning and book scrutiny and pupil voice discussions.

#### EYFS

In the Early Years Foundation Stage (EYFS), we relate the mathematical aspects of the children's work to the Development Matters statements and the Early Learning Goals (ELG), as set out in the EYFS Profile document. Mathematics development involves providing children with opportunities to practice and improve their skills in counting numbers, calculating simple addition and subtraction problems and to describe shapes, space and measures. Numbers are introduced separately and explored in depth. Children make links between these numbers, develop a greater number sense, and explore concepts during provision and focused group time.

## **Impact:**

Staff are encouraged to use their professional judgement when deciding the time frame for maths units, following guidance from NCETM curriculum maps. Continual assessment for learning aims to ensure that children have enough time to learn and practise each area of maths before moving on resulting in a deep understanding of concepts. Pupil workbooks show a range of activities, with evidence of fluency, reasoning and problem solving. We are working hard to developing our reasoning skills and children are beginning to be able to articulate this verbally, pictorially and in written form with a focus on maths talk with sentence stem scaffolds and precise mathematical vocabulary helping us to achieve this.

Regular and ongoing assessment for learning informs teaching, as well as interventions so we can support the success of each child. These factors ensure that we can maintain high standards, with achievement at the end of KS2 above the national average.

During pupil voice interviews, the children were very positive about the way maths was taught in school saying "It's fun because we learn lots of different things and play games to help us learn". "The daily fluency helps me to practise my skills and makes me quick". "I really like the rhythm my teachers use to help me learn my times tables". The children have said that the homework books are "Cool!" and "Help you learn more". They liked the fact that they "Get new questions that have not been taught" and like how the teachers discuss the solutions to any errors or misconceptions in class. The UKS2 maths ambassadors help to engage the Y4 children in times table practice and the positive pupil voice demonstrates this: "The ambassadors are enthusiastic and help us with clues for the times tables" "They help me because they give me good ways to work out the times tables when I'm stuck" "They are kind and smiley and make times tables fun". "I love being fast on rockstars".