



Ashley Junior School

Mathematics Curriculum

Intent

At Ashley Junior School, we use the National Curriculum as the foundation of our Mathematics teaching and learning. We want our children to develop their conceptual understanding of mathematics. They will use CPA approaches (Concrete, Pictures and Abstract) and a wide range of models and images. Pupils will understand the number system, develop calculation strategies and use efficient methods to solve problems. Our pupils will use: mathematical vocabulary correctly, systematic and logical approaches, and be able to explain their mathematical thinking.

Implementation

At AJS we implement the National Curriculum, which incorporates the aims of:

Fluency

The pupils will understand, memorise and recall the fundamental knowledge and facts, which underpins Mathematics. Through varied and frequent practice and with increasingly complex problems, over time pupils will recall knowledge rapidly and accurately. Pupils will be given regular opportunities to revisit and retrieve previous learning through 'Retrieval Practice Grids.'

Reasoning

Following a line of enquiry, and noticing relationships and patterns and explaining their approaches and thoughts using appropriate mathematical language. Their thoughts and justifications maybe scaffolded by the use of 'Stem Sentences' which prompt responses and organise thinking.

Problem Solving

The students will apply their growing mathematical knowledge to a variety of routine and non-routine problems, which are increasing sophisticated. They will break down problems into a series of simpler steps using POLYA's problem solving approach:

1. Understanding the problem
2. Make a plan
3. Carry out the plan

4. Reflect on results

Impact

The impact of our Mathematics curriculum is that children understand the relevance and importance of what they are learning in relation to real world concepts. Children know that Maths is a vital life skill that they will rely on in many areas of their daily life. Children have a positive view of Maths due to learning in an environment where Maths is promoted as being an exciting and enjoyable subject. Pupils will feel confident to investigate and know that it is reasonable to make mistakes.

When children leave our school, it is our aim that they will see Mathematics as both useful, and worthwhile, having developed resilience enough to tackle challenging and increasingly sophisticated problems. They will think of competency in Mathematics as a 'life- skill,' necessary for financial stability and an entry requirement for many careers.