Understand Encourage Inspire Equip

Maths at Archbishop Sumner

Our intention is to enrich children's mathematical education, using fluency, problem solving, and reasoning to develop pupils' skills. Archbishop Sumner provides the strong foundation of fluency enabling pupils to investigate and solve a variety of problems for both maths and life as a wider whole. Maths at ABS allows them to make exciting connections with the world stimulating curiosity, and fostering creative mathematical thinking through well practiced reasoning, explanation and talk.

Maths in EYFS - Intention

Our intention in EYFS is that children will use mathematics to understand their world as they reason mathematically with a sense of enjoyment and curiosity. Children will make rich connections across mathematical ideas and begin to understand the value of number (including skills like subatising) as they investigate and solve problems. In a language rich environment, pupils will talk about shapes, spaces and measure with confidence and purpose. Pupils will develop visualising skills and an awareness of shape, space and measure by exploring spatial relationships

Maths in KS1 - Intention

Our intention in KS1 is to foster curiosity towards maths which will translate to a confidence in problem solving (both in maths and in a wider range of disciplines); they will have secure arithmetic skills which are rigorously applied to problem solving.

Children will use key vocabulary to talk within contexts they know, including the variation of the manipulatives they use. Pupils develop their resilience continually, working through problems they might find initially difficult – developing their problem solving skills.

Maths in KS2 – Intention

Our intention is for children to have a variety of strategies at their disposal to solve problems involving real life mathematics.

They have a clear understanding of number and will use this knowledge and their skills in investigative and creative ways. Children think mathematically and systematically where possible, making meaningful links between what they know and their new learning. Children see maths as the gateway to the sciences including the development of their critical thinking skills for maths and in the wider world.

Maths in EYFS – Implementation

Pupils are taught automaticity with number in early years, reinforced through the White Rose Mastering Number programme. They develop their understanding of each number through good variation of manipulatives, subatising and changing contexts in the resources they use. Through manipulatives, creative opportunities and repetition, pupils develop a better understand their world.

Pupils recap prior learning regularly, making strong connections between their skills and knowledge. This is complemented with adult-led sessions to apply skills to 'real life' scenarios.

Through continuous provision, pupils develop special awareness. Gross motor activities are easily accessible and children engage in constructive activities to see shape and space from different perspectives.

Taking advantage of play outdoors exposes children to the language of position and direction as well as exploring how their bodies move.

Maths in KS1 – Implementation

We implement our intent through the delivery of maths sessions across the week. (5 White Rose Maths sessions, complemented with maths meetings to repeat, practice and reinforce fluency). In addition, pupils regularly develop their subatising, mental maths and fluency connections through 'Mastering Number'

White Rose learning uses various pictorial representations of numbers through effective variation of manipulatives.

New learning is introduced once the previous skill has been learnt effectively by the class and pupil regularly revisit their learning using flash back 4's and starter sessions.

Once arithmetical proficiency is acquired, children are challenged with applying these new skills in tackling reasoning and problem solving questions.

Learning is developed through the use of effective layering to challenge pupils of all levels. Learning of times tables is introduced in order for pupils to start to develop instant recall of known facts (x2,x5 x10).

Shape, Space, Measure are taught to match real life situations and demonstrate allow pupils to link their knowledge and skills in match to relevant circumstances.

Maths in KS2 – Implementation

We implement our intent through the delivery of maths sessions across the week. (5 White Rose Maths sessions, complemented with maths meetings to repeat, practice and reinforce fluency)

White Rose learning presents 3 crucial aspects of maths: fluency, reasoning & problem solving.

Mastery is achieved when pupils can effectively apply skills and techniques not only to the concept, but also the not often seen concept and the non-concept. Pupils use talk to reason and justify with key mathematical vocabulary.

Children are exposed to a range of different question types from multiple sources so they are familiar with a variety of variations and contexts.

Mental maths concepts are explicitly taught, and reasoning answers are modelled to reinforce vocabulary and efficiency

A focus is placed on acquiring all timestables to a sufficient accuracy and speed of recall. Homework reinforces the practice of fluency and automaticity in Maths.

Maths in EYFS - Impact

Our impact is assessed formatively on a daily basis during our adult-led teaching as well as through observations of child-initiated learning. Our children talk confidently about their maths learning.

Assessments are made using criteria outlined in the developmental stages of the early learning goals. This is tracked through the application – 'Evidence me' and outlines the progressions pupils are making.

Use of assessments allows teaching to challenge and extend pupils mathematical thinking.

Maths in KS1 - Impact

Our impact is assessed formatively on a daily basis through the key questioning and reasoning of 'White Rose Maths' sessions.

Interventions using 'number sense' reinforce key concepts of number and calculation, discretely teaching elements of addition and subtraction and core mental fluency.

White Rose Assessments are conducted once per term and teachers use this data to inform interventions and future lessons. Block assessments take place at the end of each unit and informs future planning

Pupils regularly revisit basic facts with simple calculations to increase their speed and fluency. They are explicitly taught key vocabulary to enable them to talk confidently and reason with their maths.

Maths in KS2 – Impact

Our impact is assessed formatively on a daily basis through the key questioning and reasoning of 'White Rose Maths' sessions.

Interventions using 'number sense' reinforce key concepts of number and calculation, discretely teaching elements of addition and subtraction and core mental fluency.

White Rose Assessments are conducted once per term and teachers use this data to inform interventions and future lessons.

Block assessments take place at the end of each unit and informs future planning