



Adaptive Teaching in Mathematics

Making use of pre teaching

Teachers may go through some key ideas with pupils in short targeted sessions before the topic is taught, enabling them to have a head start and be prepared for what is coming up.

Breaking down learning into smaller steps

Learning objectives are broken down into more manageable, smaller steps.

Maths No Problem

The programme book is adapted to meet the needs of the child.

Planning for misconceptions

Teachers challenge learners to spot, explain and rectify errors. We are able to identify and tackle misunderstandings early on rather than let these incorrect ideas become established in learner's minds.

Intervention

Providing additional support outside of lessons helps to close gaps and/or deepen understanding. Teachers may look back at previous years' steps to support this, or use gap analysis of recent assessments. The teacher probes learner's understanding, challenges their reasoning and explores whether they can explain mathematical concepts.

Use of technology

Teachers use interactive whiteboard slides in every lesson so that learners can directly interact with the material whilst learning new concepts.

Revisiting and reminding

Teachers support learners who have struggled with a topic, to spend more time reconsidering and developing their understanding. We also use Flashback 4 activities, 4 a day challenges and Get Ready activities to assess what has been learnt and who might need an intervention.

Time for talk

Learners need time to practise oracy skills and are encouraged to reason at every opportunity, using clear stem sentences, key vocabulary and sentence starters. Peer discussion is also used.

Using concrete and pictorial representations

We use the CPA approach to deepen and embed understanding. For many pupils, the CPA approach is a 'way in' to a topic whilst also it can be challenge for pupils to find an alternative representation to the ones they already have.

The teacher models the use of manipulatives at the start of a topic to make it clear that the resources are suitable for those who still need them later on.

Demonstrating our learning in many ways

We use maths across the curriculum and encourage all learners to embed their Mathematical knowledge in other areas such as science or Geography, to help to with retention.

Awareness of cognitive overload

When teaching, we consider the key aims of a lesson. The teacher will provide resources, manipulatives, times tables grids if this will support learners to achieve the learning objective without overloading cognitively.