

Mathematics at Cradley:

At Cradley, we believe that every child can do maths!

We recognise that the ability to reason mathematically is the single most important factor to ensure a pupil's success in mathematics. It is therefore crucial that opportunities to develop mathematical reasoning skills are integrated fully into our mathematics lessons. Such skills support deep understanding of mathematical concepts enabling pupils to make connections, improve fluency, solve problems and ultimately become confident, life-long mathematicians

Intent

- Our maths Curriculum will develop secure building blocks for the development of mathematical understanding, reasoning and problem solving.
- Children will develop skills in fluency, mathematical reasoning and problem solving, through well taught progressive steps.
- As part of their maths journey children will build on their previous learning, both within and between year groups.
- Progression documents in Maths National Curriculum objectives, recall facts and problem solving will underpin planning.
- Children will follow a concrete/ pictorial/ abstract approach in their learning.
- They will develop skills of resilience and determination in their work.
- Our intent is that children will aspire to, and be able to achieve, the National curriculum objectives for their year group.
- All children will have positive attitudes towards maths, they will be engaged and motivated to be able to achieve their true potential.

Implementation

We strive to achieve the following within our daily maths teaching:

- Children will be taught in line with the National Curriculum objectives for their year group.
- Daily mathematics lessons are well planned, using White Rose Maths as the base, enriched with the promotion of reasoning skills and open-ended problems which are integrated into our mathematics lessons.
- Sentence stems are used to support correct use of mathematical vocabulary
- All pupils learn mathematical concepts using concrete apparatus, pictorial representations and abstract, formal methods
- Various AfL strategies used to determine where extra support/challenge is appropriate
- Well targeted questioning will assess understanding and challenge mathematical thinking.
- 'Mistakes' being celebrated
- Formative and summative assessment will enable the next steps of learning to be planned for.
- Pupils often mark their own work and each other's work within the lesson and move themselves on to greater challenges – supported by the teacher

- Mastering Number at Key Stage One and Foundation Stage allows Reception, Years one and two to have a daily intensive focus on the number areas of the curriculum. We believe children need more time to fully embed an understanding of number into their long-term memories.

Impact

Most children will achieve end of year expectations for their year group

Teachers feel confident and supported in presenting well planned lessons that ensure development and progression of knowledge and skills.

Pupils have a positive, can do attitude to mathematics and are able to reason and solve problems

They will be ready to progress to the next stage of their maths learning.

Children use the CPA approach to support their learning.

They will be resilient in their work with a “can do” attitude and will talk enthusiastically about their maths learning.

Concepts are embedded within their long-term memory

Various AfL strategies used to determine where extra support/challenge is appropriate

We measure impact by the triangulation of lesson observations, work scrutiny and pupil voice, as well as this we carry out subject leader/ teaching staff discussions – where areas for development are discussed, and for which targets for the year are collaboratively developed. The outcome of this work forms a basis for the coming years action plans, and evaluation of impact.

Formative Assessment

- Verbal Feedback – the vast majority of feedback is in conversation with the pupil, allowing misconceptions to be spotted and effectively addressed at an early stage.
- Diagnostics – we use assessments at the end of each unit to inform teaching and assess progress.

Summative Assessment:

- Year groups 2-6 use Whiterose tests every term to help inform teacher assessment.
- Year groups 1 use Whiterose end of unit tests.
- Or Cornerstones?