

Maths at Grove Academy



Intent

At Grove Academy, we believe that Maths is a skill for life. Through the teaching of maths, we intend to provide a curriculum that caters for the needs of all individuals and sets them up with the necessary skills and knowledge for them to become successful in their future. We aim to prepare them for a successful working life. We incorporate sustained levels of challenge through varied and high quality activities with a focus on fluency, deepening understanding and reasoning.

Pupils working at Greater Depth are required to explore maths in more depth, using mathematical vocabulary to reason and explain their workings. A wide range of mathematical resources are used and pupils are taught to show their workings in a concrete, pictorial and abstract form wherever suitable. They are taught to explain their choice of methods and develop their mathematical reasoning skills. We encourage resilience, flexibility, curiosity and determination as necessary steps in learning.

Implementation

White Rose & Deepening Understanding

Every class follows the White Rose scheme of learning, which is based on the National Curriculum. Lessons may be personalised to address the individual needs and requirements for a class but coverage is maintained. In order to further develop the children's fluency, reasoning and problem-solving, we use Deepening Understanding which correlates to the White Rose lessons and further develops children's understanding of a concept and the links between maths topics.

Concrete Pictorial Abstract (CPA)

We implement our approach through high quality teaching delivering appropriately challenging work for all individuals. To support us, we have a range of mathematical resources in classrooms including Base 10, place value grids, part – whole representations and counters (concrete equipment). As children develop as mathematicians, there is a progression from them using concrete equipment to images and diagrams (pictorial), moving to abstract methods. Abstract maths relies on the children understanding a concept thoroughly and being able to use their knowledge and understanding to answer and solve math without equipment or images.

Assessment

Through our teaching we continuously monitor pupils' progress against expected attainment for their age, making formative assessment notes where appropriate; end of unit assessments are also completed and used to inform teaching. Summative assessments are completed at the end of each term; these results form discussions in termly Pupil Progress Meetings. The main purpose of all assessment is to always ensure that we are providing excellent provision for every child.

Times Tables

Pupils are provided with 30 minute lessons four days a week to practise learning and applying their times tables. Year 4 pupils complete one lesson per week on computers, in preparation for the end of year Maths Times table check.

Impact

- Children's progress in math's is tracked through termly, summative assessments. Data from these is analysed to ascertain areas for whole-class improvement and feeds into planning, as well as identifying groups of learners who may require targeted support.
- All children will be able to talk positively and enthusiastically about maths, using acquired vocabulary, their learning and will take pride in their work.
- children will be open minded, flexible and logical about problem solving and have the skills to use methods independently.
- Children will demonstrate a quick recall of facts and procedures, including the recollection of the times table.