

Devon School Maths Policy

Introduction

Mathematics teaches pupils how to make sense of the world around them through developing their ability to calculate, to reason and to solve problems. It enables pupils to understand and appreciate relationships and pattern in both number and space in their everyday lives. Through their growing knowledge and understanding, pupils learn to appreciate the contribution made by many cultures to the development and application of Mathematics. Mathematics equips pupils with the problem solving skills that are needed in everyday life. It promotes sound numeracy skills; logical reasoning, attention to detail, and helps pupils to understand the world around them. Mathematics encourages creative thinking when pupils are challenged by unfamiliar situations and provides the tools and language to communicate these ideas accurately.

Aims and Objectives

- To create a stimulating and challenging environment for pupils to gain the confidence and encouragement to fulfil their potential in this area of study.
- To have a systemic but flexible and creative approach to solving problems, to reason, to think logically and to carry out investigations.
- To develop the ability to use and apply Mathematics across the curriculum and in real life.
- To promote a self-critical, reflective approach to learning.
- To foster a determined and persistent approach.
- To show initiative and an ability to work independently and in co-operation with others.
- To be interested and motivated to succeed gaining satisfaction from their success.
- To develop mental and oral mathematical skills.
- To enable pupils to communicate their ideas both written and orally using good mathematical English.
- To ensure that pupils needing curriculum support are identified and catered for.
- To ensure a broad and balanced mathematical education is offered to all pupils regardless of origin, class, gender, aptitude or disability.
- To develop an understanding of the relationship in Maths through enquiry, discussion and experiments;
- To develop a positive attitude to Maths realising its creative, aesthetic aspects and its relevance to real life situations.
- To gain our pupils the best qualification we can for their futures whether a GCSE or Functional Skills in Maths.
- To develop life skills that will help them in all walks of life.
- To enable all pupils to acquire the tools needed for any aspirational employment opportunities.

Curriculum Planning

The programmes of study for Mathematics are set out year-by-year. For Key Stage 2 and 3 studies we plan pupil's learning using White Rose Maths, which follows the National Curriculum statutory requirements, for students in Key Stage 4 studying for either Functional Skills or GCSE we follow the schemes of learning as, provided by also by White Rose Maths. Each year groups' Mathematics skills, knowledge and understanding are taught to the pupils in blocks, which are revisited, assessed and built upon termly, as we believe in the importance of pupils consolidating their learning. On the walls of the Maths classroom all the different year group have a poster showing them what will be covered that year. These posters are also supported by other posters around the room unpacking each block of work covered.

Each lesson is designed to be challenging as well as fill in gaps in learning. We use as many different resources and methods of delivery as we can to help with understanding topics covered in lessons. We make sure the topics studied in class cover the core Maths needed for academic success and to prepare for Maths in the real world.

We offer both the GCSE course and the Functional Skills courses in Maths. We always aim to choose the most appropriate course for the needs of each pupil, on occasion this may be a combination of both to maximise potential exam success.

Assessing and Recording Progress

Pupils are encouraged to reflect on there learning at the end of each lesson against the learning objective. This is supported by the marking of work covered during the lesson as well as other activities used to test understanding, such as:

- One to one discussion with pupils
- Observation of the pupil
- A mixture of open and closed questioning
- Frequent quick tests, written or oral
- End of block tests

As we cover the National Curriculum by block, we have end of block assessment to depth of understanding of topics covered and track progress over the year.

Irrespective of whether a pupil is studying for a GCSE or a Functional Skills in Maths in Years 10 and 11 we start preparing for the examinations by using exam style question and past paper to inform progress, decisions on entry level being made at the most appropriate time to maximise potential success.

We use a subject specific core tracker to measure progress throughout the year where students are assessed and highlights the progress they have made within each topic we have covered during the year. Their success is measured with a 1, 2, 3 level for attainment, understanding and evidence within their work books.

Social, Moral, Spiritual and Cultural

The Teaching of Mathematics supports the social development of pupils through the way we expect them to work with each other in lessons. We group pupils so that they work together, and we give them the chance to discuss their ideas and results.

Where appropriate we use stories in the media to highlight Maths in the real world. Also we can look back at the history of Maths and see a large wealth of progress made by famous mathematicians.

During mathematics lessons, we like to give students real world examples and how maths is used within everyday life. This gives students an understanding of the purpose of mathematics and how a lack of understanding can have an influence on their further lives.