

# THE COPPICE ACADEMY

## Mathematics Policy

*Developed:*

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## **Mathematics and Numeracy Policy Statement**

### **Introduction**

Mathematics is a core subject within the National Curriculum. This policy outlines the purpose, nature and management of the teaching and learning of Mathematics at Coppice Academy.

Mathematics teaches young people how to make sense of the world around them by developing their ability to calculate, to reason and to solve problems. It enables learners to understand and appreciate relationships and patterns in both number and space in their everyday lives. By learning to communicate and apply mathematical ideas and concepts, learners become equipped with the tools to tackle a range of practical tasks and real-life problems.

### **Aims**

At Coppice Academy, we aim:

- To promote enjoyment and enthusiasm for learning through practical activity, exploration, and discussion
- To develop confidence and competence with numbers and the number system
- To explore features of shape and space
- To develop measuring skills in a range of contexts.
- To equip learners with the language and skills to communicate their mathematical ideas.
- To understand the importance of mathematics in everyday life and apply mathematical skills in a meaningful way.
- To improve learners' ability to solve problems through decision-making and reasoning in a range of contexts
- To provide appropriate accreditation and opportunities for life beyond school

### **Students Mathematical Experiences**

All students are given the widest possible range of mathematical experiences including practical, investigative, and problem-solving exercises. Evidence of the range is reviewed by the mathematics subject lead and SLT through book scrutinies, learning walks, student questionnaires and lesson observations. All experiences are tailored to the individual needs of pupils to ensure that they are able to access and learn from the variety of mathematical experiences.

## **Organisation and Methodology**

All students are taught in pathway groups with Teaching Assistants used to support pupils who require a more tailored scheme of work which matches their individual needs. There is freedom for students to move between pathways as their skills develop to ensure the learning journey is appropriate and tailored for each student; this is monitored and discussed regularly by class teachers and mathematics lead teacher.

At present most students receive four hours of mathematics teaching per week, along with mathematics that is taught across the curriculum and during enrichment activities.

Mathematics at Coppice Academy is taught using the concrete, pictorial and abstract approach. Using this method learners are introduced to an idea or a skill by acting it out with concrete resources. This is a 'hands on' component using real objects and it is the foundation for conceptual understanding. Once these experiences have been embedded, pictorial representation is introduced. In this stage, learners relate their previous understanding to diagrams and pictures of mathematical concepts. When the pictorial stage has been mastered, learners begin to represent their ideas in an abstract way using mathematical notation and symbols. Numicon is the primary concrete resource used in the academy. This is a distinctive multi-sensory approach to mathematical learning that emphasises on 3 key aspects of doing mathematics:

- Communicating mathematically
- Exploring relationships
- Generalising

Formal learners also have opportunities to access accreditation, ranging from Entry Level 1 through to GCSE.

## **Recording, assessing and recognising progress**

Aspirational targets are set for all pupils in mathematics. These are taken from the Coppice Progress steps and generated through our online progress tracking system, solar. Pupils are regularly informed of their targets and what their next steps are to achieve them. These targets are included in workbooks to give learners the opportunity to reflect and review with staff. Evidence of progress towards targets is recorded

## **Monitoring and Evaluation**

We have a Data Manager who monitors and tracks data and shares findings with all staff. Subject leads also analyse the data and have half-termly meetings with staff to discuss student progress. The SLT, together with subject leads, will conduct book scrutinies, jointly observe lessons and provide relevant CPD for staff.

## **The Role of ICT**

We promote the use of ICT in lessons where appropriate, not just as a teaching tool but as a hands on approach for the students.

We use the Mathletics, Maths Seeds and Times Tables Rock Stars platforms to further develop numeracy skills in school, and students can also access these at home.

## **Homework**

Homework is set where appropriate and matches the needs and abilities of the pupil. Homework can take various forms including the use of the online resources.

## **Parental Involvement**

Parents are encouraged to be active participants in their child's learning. We aim to provide an open-door policy whereby parents can seek advice or support from any member of staff. We endeavour to communicate well through newsletters, planners, reports, open days, texts and the website.

## **Equal Opportunities**

We are committed to an environment that promotes equal opportunities for all children, regardless of their race/colour/gender and religion. Please also see the Academy's Race Equality and Equal Opportunities policy

## **Special Educational Needs**

All of our students have EHCPs and staff will take into account the needs of individuals when planning their lessons. Subject leads will liaise with class teachers to ensure that the individual needs of students are met. The SENCO will ensure that appropriate targets are set and are regularly reviewed at annual reviews and through links with specific service providers; i.e. visual, speech and hearing impairment link workers.

## **Review**

The mathematics policy will be reflected in our practice. The policy will be reviewed annually.