



Date of review: September 2022

Date of next review: September 2023

Responsible person: Deputy Head, Mathematics Faculty

Numeracy Policy

We are committed to raising standards of numeracy with all of our pupils so that they feel confident in their ability to use these skills in all areas of the curriculum. This will then develop the **skills necessary to cope confidently with the demands of further education, employment and adult life.**

Contextual Information

While Mathematics is regarded as a subject in its own right with its own progression and development, the use of numeracy applies mathematical concepts to real-life applications. The use of Mathematics should therefore be seen as a natural tool used throughout the curriculum rather than something set apart. As such, Mathematics becomes a key skill not only in the curriculum but also in everyday life. To this end, the concept of numeracy then encompasses the need for Mathematics in all areas which will benefit the whole curriculum and will increase meaning and engagement for pupils in Mathematics.

Literacy and numeracy are the keystones to educational success in subject areas beyond English and Mathematics. It is important that teachers are aware of the skills that students may or may not bring to lessons and that for numeracy we have a common methodology and use of terminology. If and when differences in approach are necessary in subject areas, we should be able to highlight the differences and explain why they exist.

Raising Standards

Raising standards in numeracy across our school cannot be solely judged through assessment outcomes. There is a need to evaluate the pupils' ability to transfer mathematical skills into other subject areas, and by their fluency at applying techniques to problem solving. Their confidence in attempting this is initially as important as achieving the correct solution. The school's monitoring and evaluation programme will be the main process for evaluating the success of our practice. This will ensure that the policy is effective and becomes a well-established part of our school practice.

Consistency of Practice

Mathematics is a subject in which its learning blocks can be taught in multiple different ways, using multiple different methods. This can cause significant confusion and cognitive overload for some students, especially lower attainers. Our calculation guidance provides mathematics teachers,



teachers of other subjects, and staff who support students in mathematics lessons with some of the methods that should be employed in the teaching of mathematics across the academy.

In mathematics we aim to ensure thorough understanding of the subject content covered without relying on process memorisation. The calculation guidance is one of the ways of accomplishing this. Those strategies will allow staff to synchronise their practise and to ensure students encounter the same methods throughout their mathematical journey, regardless of their teacher. The aim is that this will provide consistency for students in the long-term and aid in improving their outcomes.

Teachers of Mathematics should:

- be aware of the mathematical techniques outlined in the guidance and provide assistance and advice to other departments so that a correct and consistent approach is used in all subjects.
- provide information to other subject teachers on appropriate expectations of students and difficulties likely to be experienced in various age and ability groups.
- through liaison with other teachers, attempt to ensure that students have appropriate numeracy skills by the time they are needed to access content in other subject areas.
- seek opportunities to use topics from other subjects in Mathematics lessons.
- be a source of expertise to colleagues in other departments.

Teachers of subjects other than Mathematics should:

- ensure that they are familiar with correct mathematical language, notation, conventions and techniques, relating to their own subject, and encourage students to use these correctly.
- be aware of appropriate expectations of students and the difficulties that might be experienced with numeracy skills.
- provide information for Mathematics teachers on the stage at which specific numeracy skills will be required for particular groups.
- provide resources for Mathematics teachers to enable them to use examples of applications of numeracy relating to other subjects in Mathematics lessons.
- promote a positive image of numeracy and Mathematics.

To support children to develop fluency with number, teachers need to:

- provide a range of appropriate contexts and situations which give meaning to numerical tasks.
- create an environment which encourages children to develop and use their own methods of working at numerical tasks.
- help children refine and improve their own methods of working at numerical tasks.

- create opportunities for children to compare and discuss a range of different methods of numerical calculation.
- recognise that this process takes time and will vary from child to child.

Summary, and the way forward

The key to making the most of all these opportunities is to identify the mathematical possibilities across the curriculum at the planning stage. This will be achieved in each area of study by conducting an audit of what numeracy is required. Teachers of all subjects should make the links between subjects and numeracy explicit by talking about links frequently in their classes. Teachers should also draw children's attention to the links between subjects by talking frequently about them, both in Mathematics and in other lessons.

Each subject area will contribute to the raising of standards within their curriculum area through embedding numeracy into part of their everyday teaching by:

- incorporating the relevant numeracy objectives into schemes of work.
- identifying subject specific numeracy and producing resources to aid the teaching of these words.
- modelling different methods of calculation.
- making staff aware of the calculation guidance, and being aware of the different ways that pupils may approach numeracy topics, ensuring pupils are encouraged to use their preferred methods, when appropriate.

Progress will be monitored by:

- ensuring documents and displays in each subject area do not contain numeracy errors.
- offering numeracy support in subject areas, when requested.
- receiving feedback from departments via HODs.