

Maths at College Park School

Rationale

It is important that all pupils develop and apply a level of numerical understanding and skills in order to enable them to confidently solve problems in a variety of curriculum contexts and to cope with practical mathematical demands of everyday life both now and for adulthood.

The focus on Numeracy skills does not just take place in Numeracy sessions it takes place in all subjects where pupils are expected to apply numerical and problem solving skills.

Numeracy is:

The ability to cope confidently with the mathematical demands of further education, employment and adult life.

This includes:

- The ability to name, recognise and order numbers.
- The ability to recognise and use money as part of everyday life.
- To recognise shapes, time and measure in a range of different settings.
- The ability to carry out basic calculations efficiently and accurately, either mentally, physically or with pencil and paper as appropriate.
- The ability to apply knowledge of number to both familiar and new circumstances and to use it in the solution of problems.
- The ability to understand and use units of measurement of length, mass, capacity and time as appropriate.
- The ability to understand and use information presented in mathematical forms, including graphs, tables and charts.

Raising Standards of Numeracy

A whole school strategy for raising standards of numeracy involves:

- Increasing awareness of all teachers of the use of teaching strategies incorporating practical, sensory and use of technology in activities to teach the mathematical skills acquired by pupils.
- Identifying the Numeracy needs of different subjects.
- Providing information on appropriate expectations of particular groups.
- Increasing teacher awareness of how students are taught particular skills in mathematics lessons, so that students can be encouraged to utilise these skills in various subjects.
- Increasing teacher awareness of differences that exist, in similar topics, between mathematics and other subjects, so that these differences can be explained to pupils to aid understanding.
- Developing a consistent approach to learning and Numeracy skills in all subjects.
- Increasing the awareness of pupils of the transferability of skills, so that they can make effective use of the Numeracy they have, in a range of contexts.
- To demonstrate the functional uses of mathematics in everyday life as appropriate.

EYFS

Our principal focus is to underpin the early learning goals within Mathematics to provide our learners with opportunities to further develop and improve skills in counting; understanding and using numbers; understanding money; and to describe shapes, spaces and measures. This ensures we provide:

- Access to a broad range of knowledge and skills outlined within the early learning goals in the specific areas of mathematics that provide the right foundation for good **appropriate** progress through school and life.
- Lessons that incorporate play, as well as adult-led activities
- A secure foundation through learning and development opportunities which are planned around the needs and interests of each individual child.
- Regular assessment opportunities where progress is measured and reviewed regularly
- Consistency through the moderation process.
- Equality of opportunity and anti-discriminatory practice, ensuring every child is included and supported.

Semi-Formal Curriculum

Our semi-formal curriculum is a developmental curriculum where learners learn by doing and the process is as important as the product. The way we teach mathematical concepts is designed to support the development of a young person with Autism and SLD.

Through the below curriculum areas we plan to support the early stages of understanding ways to apply maths in the environment, number concepts and calculations as well as an understanding of shape, space and measure.

- My communication
- My independence and PE
- Play, Leisure and Citizenship
- English and reading
- Thinking and problem solving
- Citizenship
- Creativity

We plan based on the individual pupil and provide opportunities for them to learn and experience mathematical concepts based around their understanding and stage of development.

Formal Curriculum

Our curriculum will promote high-quality numeracy education to provide a foundation for understanding the world, the ability to reason mathematically and promote enjoyment, independence and curiosity.

Our programme of study links with the National Curriculum and ensures that content is introduced at the right time. We reference Pre-key Stage standards to assess pupils working below the national curriculum framework.

Pupils accessing the formal curriculum are able to access relevant and appropriate exams including Functional Skills and Entry Level accreditations.

Pupils will have specific formalised maths lessons as part of their timetable. These are based in the National Curriculum but adapted for our learners, they cover areas such as:

- Handling data through making tally charts and pictograms
- Identify and describe properties of 2D and 3D shapes (sides, corners, edges)
- Use positional language (behind, in front of, inside outside, backwards)
- Using a range of measures to describe and compare different lengths/heights/weights (tall/short, heavy/light) and begin to read simple scales.
- Read time (digital and analogue clocks), learn the months of the year, have calendar skills (write date using class calendar) and know their age and birthday
- Recognize money and its uses (recognize coins and notes, add/subtract money, go shopping with support)
- Develop confidence and mental fluency with whole numbers, counting, recognizing, and matching numerals to quantities for numbers 0-10
- Understand concepts around 'more' or 'less'
- Working with numerals, words and two operations (addition and subtraction)

- Develop their ability to recognize, handle, describe, draw, compare and sort different shapes and use the related vocabulary in various environments.
- Use and understand positional language (on, in, under)
- Using a range of measures to describe and compare different quantities such as size (big, small, medium), capacity/volume (full/empty), time (first/next/last, days of week, seasons) and money (matching coins, role-play shopping situations).
- Pupils become increasingly fluent with whole numbers and learn to count 1-100 objects, as well as be able to add and subtract up to 20 (can be with visual supports), and know number bonds to 10
- Begin to understand fraction-vocabulary and identify simple fractions (whole, half, quarter, third)
- Begin to understand multiplication by starting to count by 2s, 5s, and 10s
- Begin to use ordinal numbers (first, second, third, last)
- Have an understanding of handling data through making tally charts and pictograms
- Identify and describe properties of 2D and 3D shapes (sides, corners, edges)
- Use positional language (behind, in front of, inside outside, backwards)
- Using a range of measures to describe and compare different lengths/heights/weights (tall/short, heavy/light) and begin to read simple scales.
- Read time (digital and analogue clocks), learn the months of the year, have calendar skills (write date using class calendar) and know their age and birthday
- Recognize money and its uses (recognize coins and notes, add/subtract money, go shopping with support)

When pupils are in Key Stage 4 following the formal curriculum will begin studying functional skills mathematics from Entry Level 1 to Level 2. Their maths curriculum should also focus on functional skills, and how pupils can apply their learning in the real world.