



Maths Policy



Maths Policy

Through the teaching of this subject, we aim to:

- Enable pupils to explore their environment and make sense of the world around them, initially through the application of schema and later through the application of functional number and problem solving skills.
- To provide support for all who participate in Maths and improve the quality and continuity of Maths teaching and learning throughout the school.

Intent

Mathematics is a developmental subject and is taught according to the developmental level of understanding of individual pupils. Breadth and variety of experience will be maintained through the use of imaginative and motivating resources and activities.

We encourage our pupils to understand the world around them through play and exploration. This is an essential process for all pupils with complex needs. Only when understanding of the world is achieved, through the application of schema, can further learning progress.

Maths may not be taught in a discrete lesson. Skills may be integrated into activities throughout personal timetables taken from the cognition and learning intentions document. The skills developed in mathematics provide pupils with tools for exploring, investigating and understanding the world. At each developmental level, the pupils are given opportunities and experiences to explore and compare objects, materials and events. The pupils are supported to find differences and similarities, to notice relationships and connections and use this knowledge to further guide their learning. At first these opportunities will be of a sensory and perceptual nature, becoming gradually more concrete and varied, thus helping pupils make sense of change, for example, in space, time, pattern and quantity. Later on in their development, the skills learnt will aid representational thought and the ability to anticipate, predict and problem solve. This allows the pupils to plan ahead, to evaluate, improve own learning and begin to use number in a representational way. The skills developed in mathematics are life-long skills that will support the pupils into adulthood. There is a particular focus on the application of mathematical skills that can solve problems in real life situations, for example, using money when shopping.

Maths is the skill of applying mathematical concepts, processes and understanding appropriately in a variety of contexts. Maths involves providing pupils with opportunities to

develop and improve their skills in counting, understanding and using numbers, calculating simple addition and subtraction problems, and to describe shapes, spaces, and measure. Pupils will be given opportunities to transfer their understanding, as appropriate, to other contexts across the curriculum. Pupils can demonstrate their mathematical knowledge, understanding and skills in a variety of ways to communicate, manage information, think critically, solve problems and make decisions.

Our aims are to enhance pupil's interest in maths and strengthen mathematical ideas through:

- teaching in context, every day maths through real life experiences
- integrating mathematics with other activities
- provide opportunities to explore and manipulate mathematical ideas with interest
- actively introduce mathematical concepts, methods, and language through a range of appropriate experiences and teaching strategies
- support pupil's learning by personalising opportunities and continually assessing their mathematical knowledge, skills, and understanding

Many of our pupils have visual, auditory or physical disabilities, and some have a multi-sensory impairment. It is therefore important that our pupils have access to a range of mathematical activities that accommodate their individual needs and allow individuals to reach their potential within the subject. Our pupils use a range of ICT/communication systems and resources to access a wide variety of mathematical activities.

We should also consider multicultural diversity and gender issues of our pupils when delivering mathematical activities.

Implementation

The teaching of mathematical skills can be explicit in planning, but it may also be taught as a discrete subject, across the curriculum and throughout continuous provision.

Early Years/KS1

Pupils in the Early Years class will follow the Early Years Framework which covers the following areas supported by the appropriate curriculum assessment framework:

Prime areas:

- Communication and language
- Physical development
- Personal, social and emotional development

Specific areas

- Literacy
- Mathematics
- Understanding the world
- Expressive arts and design

Pre-Formal/Semi-Formal

Classroom practitioners should teach knowledge, skills and understanding in age-appropriate ways that match and challenge their pupil's abilities. Within classes there will be opportunities for mathematical learning through the range of activities and investigations available to the pupils and linked to personalised targets based on their EHCP plans and also consider multicultural, gender and diversity. Pupils working at the semi-formal level will access learning based on long term planning to ensure progression and breadth. On-going assessment will inform the next steps for learning.

Post 16

In addition to the above (pre and semi-formal), Post 16 pupils follow a Life Skills curriculum, augmented by accreditation at an appropriate level through: ASDAN Personal Progress

Teaching – Styles and Content

It is important to use a range of multi-sensory teaching styles to reflect the different learning abilities of individuals in any group of pupils and teaching will be delivered on an individual basis, small groups or whole class groups as appropriate.

For pupils accessing the Pre-Formal curriculum, whose learning is not subject specific, the teaching focus will be on encouraging and extending early developmental schema. Throughout all of the key stages, pupils will be given opportunities to explore a wide range of schema, such as trajectory, orientation, connecting, rotation, enclosing, enveloping, positioning, tracking, alternating and transporting. Particular emphasis will be placed on developing and extending the preferred schema of individuals. Support will be given to ensure that pupils with complex and profound learning difficulties, including multi-sensory impairment, will have access to the teaching and exploration of schema. The opportunities to explore and develop the various schema will be threaded throughout the teaching and learning within Pre-Formal, taking place throughout every area of the school day including non-classroom based portions such as personal care and going to and from the school buses, as well as the sessions taking place within class. These opportunities will be evident within most lessons.

Pupils at this stage will also be given frequent opportunities to explore their environment to gain concrete experience of similarities and differences in space, shape and quantity. They will be supported in developing an awareness of permanence and change, and the rules and patterns governing this. They will be encouraged to use this awareness to anticipate and predict events across a wide range of experiences and activities.

Within the Semi-Formal curriculum pupils will continue to explore their environment using concrete objects to develop skills and knowledge. They will be encouraged and given opportunities to use symbolic thought and consider the relationships and patterns within their environment. Concrete explorations and demonstrations will still be important but more emphasis will begin to be placed on symbolic number work and representational

images. A range of multi-sensory resources are available. These include Numicon which are personalised to each individual student to support learning. Numicon resources support learning by providing a multi-sensory means of understanding connections between numbers.

Planning

The Fairfield Curriculum for All document and Curriculum Coverage: Programmes for learning provide a basis for long/medium-term planning in Maths as well as other subject areas as appropriate. These will link to the appropriate curriculum assessment frameworks which will inform on-going progress. Teacher planning is informed through a personalised approach based on the appropriate working levels of students with reference to available programmes of study.

Impact - Assessing and recording progress

Assessment is built into the teaching and learning process for all pupils, and is a valuable tool for informing staff of the next steps in learning. Assessment at Fairfield is ongoing, however formal assessment takes place each term when data is collected and progress evaluated. Evidence for Learning is used to record and monitor on-going progress. Progression in maths skills is acknowledged within the specific pathway framework for assessment and additionally as personal learning goals where relevant.

In addition to Evidence for Learning, individual journals, pupil workbooks, photographs, on-going planning and Engagement Model assessments provide a range of evidence to acknowledge personal progress in the different curriculum pathways.

KS4 students will also access AQA units prior to their transition to Post-16.

In Post 16, students' progress is also assessed through ASDAN.

Videos and other forms of qualitative assessment can be used to demonstrate pupil progress. This formative assessment process helps staff understand how each child is learning and informs further planning and progression.

Ongoing focused commentary, and the plenary at the end of each session, are both used as opportunities for staff to share learning, progress and meeting of targets by individual pupils. Pupils are encouraged to reflect on their own learning. All staff are encouraged to consider 'next steps' for pupils.

Learning objectives are set based on pupils' termly PEP targets. These are evaluated daily and weekly as appropriate and amended when necessary.

Progress in mathematics is reported to pupils, parents, carers and other professionals through the Learning Journals, EHCPs and photographs or videos. Achievement is reflected in accreditation and qualifications across the school as well as displays and in assemblies.

Planning for Progression

Careful sequencing of curriculum content and experiences build on previous learning and achievements to promote future learning. Long and medium term curriculum plans should therefore show progression from age group to age group and within each key stage. This progression can be shown through the application of skills and experiences.

Planning for progression for individuals or groups might focus on:

- Skill development
- Breadth of curriculum content
- A range of contexts for learning
- A variety of support equipment
- A range of teaching methods
- Application of skills, knowledge and understanding in new settings
- Strategies to promote independence

For our pupils, progression is not necessarily based on a hierarchical ladder of skills and knowledge. This is reflected in the frameworks used to acknowledge progress across a range of skills at different levels. As pupils make progress they will access core strands of Maths learning. The strands (Number, Using and Applying, and Shape, Space and Measures) will be taught through the appropriate curriculum Pathway frameworks available.

Teacher Responsibilities

- Target Setting and Planning
- Data analysis
- Submission of evidence of learning and planning
- Displays
- Resource purchase/availability, resource audits and resource accessibility
- Identified relevant Continued Professional Development.

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