



'Individual Growth, Individual People'

Head Teacher: Mrs M A Tyers

Maths Policy

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MATHS POLICY

INTRODUCTION

Every student attending Newark Orchard School is entitled to a broad and balanced curriculum, which includes Maths as part of the National Curriculum and the National Strategies.

The teaching of mathematics will enable pupils to develop the skills and knowledge required for life, further study or training, enhance communication skills and promote problem solving and logical thinking. We encourage pupils to acquire basic numeracy skills to think and reason mathematically and develop their ability to apply functional problem solving skills.

Students will use a range of resources, talk about and record their work. They will be encouraged to apply their knowledge, understanding and skills in Maths in practical tasks and as functional life skills.

PRINCIPLES

The principle of entitlement for all students at Newark Orchard School has been fundamental in framing the working policy for Mathematics.

All students are entitled to a broad and enriching Maths curriculum appropriate to their age, level of understanding and needs.

Students of differing abilities and whose experiences are wide ranging are entitled to develop at their individual needs, level and stage of development.

Within the delivery of the national curriculum, issues relating to gender, race, culture and disability should be incorporated providing equality of opportunity.

Maths should be incorporated across the whole curriculum.

Parental partnership and community involvement should be given full regard in the delivery of the Maths curriculum, using the principles embodied within the 'Every Child Matters' agenda.

IMPLEMENTATION

The National Curriculum Programmes of Study requires that Maths is taught throughout all key stages. The Programmes of Study form the basis of what is taught. The main aims are:

- The development of mathematical language.
- The recognition of common, simple mathematical concepts and relationships, both numerical and spatial.
- The ability to use number in counting, describing, estimating and approximating.
- An appreciation of the measures in common use, estimation using appropriate units, the ability to measure length, weight, time and capacity.
- An understanding of money and the value and the ability to purchase items.
- Record mathematics in a variety of ways.

These aims will be covered in four Maths Attainment Targets:

- Using and Applying Mathematics.
- Number and Algebra.
- Shape, Space and Measure.
- Handling Data.

MATHS IN THE CURRICULUM

There are three main stages of number development:

- 1 Activity and experimentation.
- 2 Thinking and communication.
- 3 Acquisition of skills and reinforcement.

These main stages of development will be delivered within the framework of a Maths timetable, which is based on the National Strategies.

Each student follows an individual programme which addresses and extends targets from the annual PEP and termly IEPs. Teaching staff are responsible for designing their own teaching schemes within the relevant frameworks and according to individual students needs.

In the primary years, the Maths work will focus on the appropriate level of the Early Years Foundation Stage document or the Framework within class groups. A cross-curricular integrated approach through identified topics will also focus on mathematical concepts to develop knowledge, skills and understanding. The students will have a range of opportunities to participate in both structured and incidental mathematical activities individually, in groups or as a class.

Students will be encouraged to communicate observations, feelings and experiences, to answer and ask mathematical questions and to develop problem-solving skills. Links will be made throughout the core and foundation subjects.

Students not yet on the Wilson Stuart P levels will follow an early years approach to teaching and learning with the Explorers Curriculum (see planning, assessment, recording). Basic maths concepts would be introduced through play wherever possible.

RESOURCES

A bank of age appropriate resources is available in school. There is a range of books, materials that can be photocopied, equipment and games. New resources are regularly acquired to support student needs, including Numicon and relevant materials. A list of on-line sites and an inventory of resources available around the school are being continuously developed.

Students are also given the opportunity to develop and apply their ICT capability in their mathematical studies. A wide variety of software is available in school and the internet is widely used as a source of mathematical materials and activities.

ASSESSING AND RECORDING

The National Curriculum, Solar and the engagement profiles of the Explorers curriculum provide the framework for assessing attainment at each key stage. Levels are recorded and sent to parents in the end of year report.

Assessment of termly, weekly and daily targets is made to inform subsequent planning. Recording systems have been developed which allow students across the ability spectrum to share a broadly similar format. End of term assessments are collected electronically, feeding into CASPA and an annual review of student's progress is made and sent to all interested parties.

The whole school recording has been developed to give clear information on the progress and achievement of each individual student. This system will allow student progress to be monitored and tracked across all the key stages. This will also support target setting and smooth transition between classes and departments. Use of the Solar package also allows for small step target setting, monitoring, tracking and analysis.

In key stage 3 and 4 students will be given the opportunity to cover all four Programmes of Study of the National Curriculum, allowing for open and exploratory work to be undertaken, thus providing balance and variety. The delivery of the Maths curriculum will be through appropriate groupings, each group working at the appropriate level based on the Framework for teaching mathematics.

As well as timetabled coverage, Maths is delivered across subject boundaries including Computing, Technology, Food, Art, Science, Geography and Modern languages. The students have opportunities for applying mathematical concepts and functional skills in relevant and interesting situations, both within school and the community; this applies in particular, to the Classroom Without Walls concept.

At key stage 4, students who attain a higher level at the end of key stage 3 in Maths are given the opportunity to access GCSE Maths.

Within the group structure, provision within both departments has been made for students with profound and multiple learning difficulties to access a sensory approach to the development of early mathematical skills (P-level targets). These groups have a high adult/student ratio, as they have students who have difficulty accessing the curriculum without 1-1 adult support and need a different style and approach to maths learning.

Across the school, teachers and students use different media including cameras, videos, written reports and computer programmes to record achievement.

ACCREDITATION

Pupils within the 14-19 department, work towards modular based awards based on the student's own level of achievement and learning needs. These are accredited by the AQA entry level certificate, the AIM awards functional skills awards and Unit Award Scheme where appropriate. A small number of pupils who exhibit the appropriate potential, may access a GCSE mathematical course.

Pupils are constantly reviewed and offered a suitable accreditation path if appropriate.

Students have also been able to access module Step Up qualifications in mathematics, which can be added to other Step Up qualifications as part of foundation learning. In addition functional skills qualifications will be available from Entry Level 1 upwards. Also qualifications in Independent Living for some students will hold mathematical elements within them.

FOUNDATION STAGE

At Foundation Stage pupils follow a broadly similar programme to the students in the rest of the primary department, with planning, assessing and recording through Individual Education Programmes. These follow national Early Years Foundation Stage guidance. The outcomes cover important aspects of mathematical understanding and provide the foundation for numeracy. They focus on achievement through practical activities and on using and understanding language in the development of simple mathematical ideas.

HOMEWORK

The Homework Policy reflects the individual needs of the students in each key stage. Parents/carers need to refer to the Homework Ideas on the school website.

REVIEW PROCEDURES

This policy will be monitored on a regular basis following consultation with class teachers and will be reviewed according to the *Governors'* schedule.

INSET AND SUPPORT

There has been an emphasis on strategies which support pupils with Dyscalculia and resources have been purchased to enhance the learning in this area as many of our pupils need the support of concrete apparatus and visual cues.

The quality of the teaching and learning of Mathematics will be monitored by the Subject Leader and by the Senior Leadership Team during classroom observations and 'learning walks'. This will assist the school in the self-evaluation process identifying areas of strength and areas of development.

In monitoring the Teaching and Learning of Mathematics, the Subject Leader will:

- Implement subject policies, plans and practises, which reflect the school's commitment to high achievement and effective teaching and learning.
- Monitor the progress made by pupils and progress towards achieving subject plans and targets.
- Evaluate the impact of actions taken on teaching and learning, and use this analysis to guide further improvement using a variety of tools including planning sampling, work sampling, teacher discussion, data analysis, pupil interviews, drop-ins, observing learning and rates of progress in lessons.
- Offer support to teachers in planning, teaching and assessment.
- Keep up to date with statutory requirements and relevant initiatives.
- Ensure that there is continuity and progression in the planning and teaching of mathematics throughout the school.
- Set targets for subject development.
- Ensure that the whole school assessment, recording and reporting is followed in relation to mathematics.
- Prepare detail of subject development, including the identification of training needs, to inform the school development plan.
- Manage the annual budget allocation for Mathematics.
- Organise and maintain a catalogue of resources.