



The Poplar Adolescent Unit
Therapeutic Education Department

MATHS POLICY

Accepted by the Management Committee:

June 2019

Review Date

June 2023

The Objectives of the Policy

- To give a common approach and purpose to the use and teaching of mathematics throughout the school in line with the ethos of the National Numeracy Strategy.
- To provide clarity for all members of staff teaching mathematics.
- To provide a framework, along with the subject development plan, for the Co-ordinator to help
- monitor and evaluate the standards of mathematics in the school.

The Nature of Maths

The teaching of mathematics at Poplar Education Provision is geared towards enabling each child to develop within their own capabilities; not only the mathematical skills and understanding required for later life, but an enthusiasm and fascination about maths itself.

Aims

- We aim to increase the young person's confidence in maths so that they can express themselves and their ideas clearly using the language of maths with confidence.
- We want young people to take pride in their mathematical knowledge and achievements.
- We are continually aiming to raise the standard of achievement in mathematics at Poplar.
- We aim to work in partnership with young people, their parents, the mainstream school and support services.

The National Curriculum

Poplar Education Unit follows the National Curriculum for Mathematics which describes what must be taught in each key stage. It helps to ensure continuity and progression in the teaching of Mathematics from Year 7 to Year 13.

Every teacher has access to a copy of the Framework for Teaching Mathematics and uses it for reference when planning lessons and evaluating pupil outcomes against the Key Learning Objectives.

To support teacher planning the Unit Plans are available both in hard copy and also on the network in electronic form to facilitate modification to meet the needs of each class.

Equal Opportunities

We, as a school community, believe in equal access to the whole curriculum for all pupils, which meets the distinct needs of each individual regardless of ability, capability, intellect, social or cultural background or ethnic origin. We endeavour to maintain an awareness of, and to provide for equal opportunities for all our pupils in mathematics. We aim to take into account their cultural background, gender and Special Needs, including those with English as a second language, both in our teaching attitudes and in the materials we use with our pupils to ensure full inclusion. This includes access and sensitivity (especially in the creation and use of class data and oral contributions) for children with physical disabilities, hearing impairments, partially sighted and those with English as a second language.

Assessment

When a young person starts at Poplar Education they undertake a number of assessments; one of which is a Numeracy WRAT (wide range achievement test). This is levelled according to the National Curriculum. Once this has been completed another assessment, more specific to a particular Numeracy strand, is taken and levelled. This will be instrumental in starting to identify

areas of the curriculum that the particular young person needs to work on and also areas where their achievement is above required National Curriculum age related levels. A follow up numeracy WRAT assessment is completed once each young person reaches a CPA point (Usually around 6 weeks), to allow for comparison to measure their functioning and to assess any progress.

Alongside this, each young person completes a Numeracy self assessment form using the red/amber/green system to identify areas of strength/ weakness that *they* perceive in their mathematical knowledge. This is monitored half termly to gauge progress.

Once the assessment is complete an Individual Learning Plan is produced in discussion with each young person. This can follow one of two routes:

1. If the young person has been admitted from a mainstream school, the school is contacted by the key teacher and schemes of work obtained. This will enable Poplar to continue with the particular Numeracy strand that the young person would have been studying at school. In discussion with the Poplar maths co-ordinator a half termly individualised programme of study for the young person will be structured by the key teacher.
2. If the young person is admitted with no mainstream school background the Poplar scheme of work is used. The KS3 program uses Key Maths, KS4/5 Edexcel. Once again using the assessment material produced on induction into the unit and discussion with the Poplar maths co-ordinator, the key teacher will produce a half termly individualised programme of study for the young person.

Assessment is carried out at three levels.

Short-term assessments are a part of every lesson and are closely matched to the teaching objectives for that lesson. They are formally recorded on the young person's daily review sheet and are used to inform the planning for the next session .

Medium term assessments are carried out using Key Maths assessment activities in KS 3. These will occur at the end of each particular module. Young people accessing work from the mainstream schools will use assessment activities particular to the maths syllabus the mainstream school is using. In KS4/5 assessments are undertaken using end of module levelling tests.

Long-term assessments are made using KS3 QDCA papers. KS4/5 assessments are made using GCSE/A level practice papers and various levelling text books.

The MyMaths interactive scheme is also used as a form of assessment tool.

Record Keeping

Individual teaching staff keep a record of relevant information for formal and informal forms of assessment.

Formal assessment data is kept on a Mathematics database and this information is used to calculate individual pupil progress on the SIMS system and for target setting at the whole unit level. This database builds on assessment data that is passed from mainstream schools.

Results from formal assessments are presented as National Curriculum scores and levels with the level presented as following eg , 4a,4a+, 4b,4b+. Sub Sub levels are used to try to present progress as many of our students stay for a short period of time.

Cross Curricular Links

Mathematics is taught mainly as a separate subject but every effort is made to link maths with other areas of the curriculum. Mathematical links with other areas of the curriculum might comprise:

English- teaching mathematical vocabulary and technical terms, asking children to read and interpret word problems, to explain their thoughts and reasons and learning stories, rhymes and songs.

Science- scientific investigations require such mathematical skills as classifying, counting, measuring, calculating, estimating, and constructing recording, reading and interpreting scales, graphs and tables.

Art, Design and Technology- measuring, use of patterns, enlarging or reducing designs.

I.C.T- collect and analyse data, enter it into data handling software, produce graphs and tables, and interpret and explain their results. Their work in control includes measurement of distance and angle, using standard and non-standard measures.

Thinking skills- perception of shapes, angle, direction, position, scale and ratio.

Physical activities and Music- measuring, counting, time, symmetry, movement, position and direction.

PSHE- Financial and economic education, handling money, understanding personal finance, planning for being financially independent, making good money decisions.

The maths co-ordinator delivers a series of group personal finance sessions each term as part of the PSHE programme.

Organisation

There are two sessions of maths timetabled every week lasting 60 minutes each

- Whole class mental/oral practice (about 10 minutes)
- Main teaching activity (about 40 minutes)
- Plenary (about 10 minutes)

Teaching and Learning

Each lesson contains a variety of teaching methodologies, including direct teaching and questioning with groups and/or individuals. High-quality, direct teaching which is oral, interactive and lively, should incorporate some of the following elements: directing; instructing; demonstrating; explaining; illustrating; modelling; questioning; discussing; consolidating; evaluating pupil's responses; summarising and identifying misconceptions.

Our teaching of mathematics provides regular opportunities for:

- Group work
- Paired work
- Individual work
- Activities where children can apply their skills and experiences in other life situations.

Each lesson, objectives will be written on the individual's review sheet and discussed with the young person. At the end of the lesson the learning outcomes will be reviewed and the young person will assess whether the objective has been met. This assessment will be used to plan for the next lesson in the numeracy strand they are covering.

Resources

Everyday, basic resources for the delivery of the curriculum are kept in the classrooms with additional equipment and topic specific items e.g. polydron being stored in the store cupboard

A variety of published materials and photocopiable teaching resources are used to facilitate the teaching of mathematics. Materials are constantly being revised and supplemented, as new and improved resources become available.

Monitoring

Monitoring happens throughout the year and takes many forms, e.g. scrutiny of children's work, pupil interviews, weekly planning and observation of teaching. Written evidence will be kept in the Co-ordinator's file. There will be termly monitoring of planning. Annual observational monitoring and work scrutinies will be carried out as necessary, with a specific focus, to clarify implied findings from other forms of monitoring.

APP

Each student has an APP check list to level and check for progress

The School Development Plan

The Mathematics Coordinator creates a detailed, clear Mathematics Action Plan which helps to inform and address the School Development Plan through the setting and reviewing of priorities in the School Development Plan.

Staff Professional Development

The co-ordinator attends courses related to the development of Mathematics and regularly visits local mainstream schools to keep abreast of changes. The intention is that useful dissemination and team-teaching forms part of staff professional development. Inset training for staff is delivered by the Mathematics coordinator. Regular monitoring identifies staff development needs.

Parent-Carer Links

To maximize pupil learning, we aim to work in partnership with the young people and their parents/carers. Parents/carers are updated on their child's progress in maths as well as the other curricular areas. This could be part of an Individual Education Plan (I.E.P) produced two weeks after admission which is reviewed every half term. Although this document is not subject specific, a math's target could be integral to it. A copy is sent to each parent/carer. A more specific math's report is produced for each young person's Care Plan Approach (C.P.A.) meeting which outlines WRAT scores, levels etc. and also a written synopsis of how the young person is progressing. The C.P.A. is a multi-disciplinary meeting and is normally attended by the parents or carers. Parents are advised about their child's academic progress on a weekly basis by an emailed copy of the teachers' report to the CRM. (clinical review meeting)

Home- School Links

At the earliest possibility, contact will be made with the key teacher and the home school for the young person. As part of this process, the key teacher will identify a key member of staff at this school for contact, and will seek to obtain schemes of work for the young person to follow whilst at Poplar.

Other School Links

Whenever possible, strong links are established with the mainstream schools to enable the smooth flow of information. The Poplar ethos is, as closely as possible, to continue with the Numeracy

strand the young person would have been studying at school. This has been designed so as to make the young person's time in hospital as least disruptive as possible to their education.

Community Links

Where appropriate and possible, links with the local community will be made.

Post 16

In keeping with the government directive of every young person achieving a C grade equivalent or above in Numeracy, Poplar will endeavour to ensure that any student who requires this will be catered for through our Functional Skills qualification or our GCSE scheme of work.

Accreditations

Exam centre

Poplar Education Unit is a registered exam centre enabling young people to sit their maths examinations here if needed.

Functional Skills

Functional skills are integrated into the Poplar scheme of work. We are registered with OCR to be able to sit the Functional Skills exams at any time throughout the year.

AQA unit awards

Various AQA units are available for certification. The aim is for the young person to complete these in tandem with maintaining progress with their mainstream school area of study.

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