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PARKWOOD HALL CO-OPERATIVE ACADEMY

Parkwood Hall Co-operative Academy

"Growth through Personal and Social Learning"

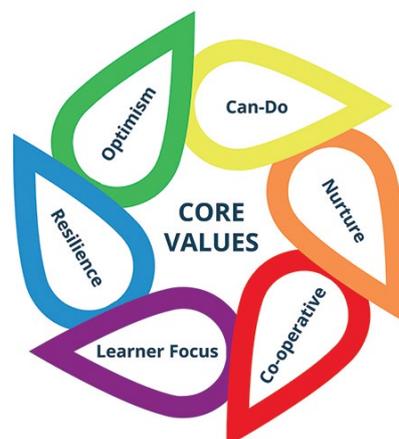
Non statutory Policy File

MATHEMATICS POLICY

Index No: 43 (v1.0)

Parkwood Hall Co-operative Academy is committed to safeguarding and promoting the welfare of children and young people and expects all staff and volunteers to share this commitment'

Our Core Values



CONTENTS

1	Introduction:	2
2	Aims and objectives	3
3	Organisation, Planning and Content.....	3
4	Resources	4
5	Assessment & Monitoring.....	4

PARKWOOD HALL MATHEMATICS POLICY

1 INTRODUCTION:

The new National Curriculum states that:

“Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history’s most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.”

Through the teaching of mathematics at Parkwood Hall Co-Operative Academy we aim to facilitate our students to make sense of and interpret the world they live in. We encourage students to develop basic numeracy skills, to think and reason mathematically and develop and apply functional problem-solving skills.

All students who attend Parkwood Hall Co-Operative Academy have an Educational Health Care Plan. In view of this, our teachings of Mathematics take into account that our students have unique learning styles and require continuous support in order to make mathematical connections. Students require a teaching and learning technique that is highly structured whilst also encouraging exploratory learning and they benefit from a consistency of approach from teachers, parents and other professionals, which requires effective communication regarding individual needs.

At Parkwood Hall Co-Operative Academy every student is entitled to a broad, balanced and enriched curriculum through which their mathematical skills will be developed. The skills developed in Mathematics provide students with the tools for exploring, investigating and understanding the world – enabling them to lead a life after school, which is as independent as possible.

All students have the opportunity to experience and engage in all areas of mathematics at times appropriate to their individual developmental needs. Students begin accessing mathematical learning through sensory exploration and play with opportunities gradually becoming more concrete and varied. As students’ knowledge and skills develop, learning becomes more abstract with representational thought.

2 AIMS AND OBJECTIVES

- To teach the skills of mathematics in a way that is meaningful and relevant to the needs of individual students at Parkwood Hall Co-Operative Academy.
- To provide an environment and teaching methods which allow students to develop their mathematical skills, regardless of their ability.
- To promote enjoyment and enthusiasm for learning through practical activity, exploration and discussion which reflects the importance of mathematics.
- To provide opportunities to apply mathematical concepts to real life contexts.
- To teach mathematics using a variety of approaches, visual stimuli and resources that meet our students' individual needs.
- To take into consideration the developmental stage, age and learning style of individual students and ensure that appropriate learning objectives are set.
- To develop every student's self-confidence and self-esteem, by giving them enjoyable and positive learning experiences.
- To ensure that, where appropriate, students achieve accreditation in Mathematics through external awarding bodies.

3 ORGANISATION, PLANNING AND CONTENT

Mathematics is taught at all key stages as part of the integrated curriculum, which has been modified to accommodate the individual needs of the students.

Mathematics is included in the weekly timetable for each class (numbers for life) and may be delivered as whole class lessons, individual sessions and as a discrete subject embedded within everyday activities - whilst creating a range of cross curricular opportunities. In addition to scheduled lessons, pupils regularly access mathematics through a wider range of activities such as: independence, SSIC visits, shopping, cooking and enrichment activities.

Teachers at each key stage take note of desirable outcomes for each individual student, and progress will be monitored individually using Evidence for Learning. For students who are not engaged in subject specific study, their mathematics outcomes will reflect the engagement model and the 5 areas of engagement (exploration, realisation, anticipation, persistence, initiation). This could include sensory awareness, reflex responses, reactive responses, use of trial error and understanding of cause and effect. It is important for teachers to take account of stage, not age when identifying suitable individual targets, but at the same time planning respectful age appropriate activities.

The school uses a variety of different theoretical approaches and incorporates the best practice from different philosophies including TEACCH, PECS, signing key words, touch cues,

objects of reference and Intensive Interaction to provide an education suitable for the individuals needs of the students.

Students will be taught through demonstration, modelling, exploration and discussion. Students will initially learn through practical mathematics focusing on objects, connections will then be made with pictorial representations before developing an understanding of the abstract concept of numerals and symbols. Teachers will use a variety of visual, aural and kinaesthetic resources to develop the concrete-pictorial-abstract approach.

Staff are trained to use Numicon - this is a practical, multi-sensory, structured teaching tool that can be used at all levels. It has been proven to support the learning styles of students with SEND and enable them to make mathematical connections.

ICT programmes, games and resources are used to provide different representations of mathematics as well as stimulate and engage students. Interactive apps and activities are available on school computers that allow pupils to use and develop their mathematical skills.

All classes use a pictorial/symbol timetable approach to prepare the pupils for each day. This structure and repetition helps to develop some concept of time, routine and order in a meaningful way.

4 RESOURCES

Each class has a selection of manipulatives to support the teaching of mathematics. All classes have a member of staff trained to use the Numicon resource and have access to Numicon resources to support their teaching of Mathematics. Numicon teacher handbooks are available to support teachers to plan practical lessons that show clear steps of progression. Each class has an Interactive White Board and is able to make use of a wide range of programmes to support the teaching of mathematics.

5 ASSESSMENT & MONITORING

The Parkwood Hall (PWH) assessment levels for Maths has been devised following the recommendations from the Rochford Review (2016) for the removal of P levels as statutory requirement for the assessment of students working below the standard of national curriculum tests. The PWH levels have been designed to assess the development of students' skills and bridge the gap to Entry Level, including functional, age-appropriate English and Maths life skills. A number of documents were referred to while creating the PWH bespoke levels, for example the Early Learning Goals, National Curriculum documents and OCN qualifications.

Students working at PWH4 or above will be assessed on the PWH assessment criteria for Maths. The completion of PWH10 equates to OCN Entry Level 1 and students will be equipped to take the Entry Level 1 assessment. Students will progress onto Entry Level 2 and have the opportunity to work towards OCN Entry Level 3, Level 1 and Level 2 qualifications. Students

working below PWH10 at the end of KS3 will also have the opportunity to work towards accredited courses (e.g. OCN, ASDAN) when they enter KS4 and KS5.

Students summative progress against PWH levels will be recorded termly by teaching staff on Evidence for Learning. Evidence for Learning is used as the main platform to capture summative progress through photographic and written evidence.

Assessment is based on teacher observations, written work, photographic or video evidence. Parents discuss students' progress and achievements in daily diaries, informal meetings, IEP meetings and at the Annual Review meeting.

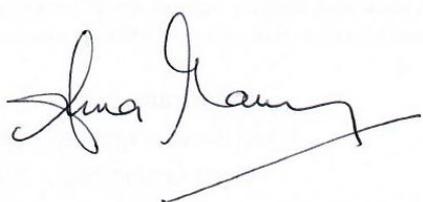
DfE (2014) 'National curriculum in England: Mathematics programmes of study'

DfE (2017) 'Statutory framework for the early years foundation stage'

DfE (2020) 'The engagement model'

APPROVAL

This Policy was written for Parkwood Hall Co-operative Academy and will be reviewed on a 3-yearly cycle and must be signed.

Date Policy Reviewed:	
Date of Next Review:	09/03/23
Signature of Principal:	
	
Date: 13/3/20	

Version and Date		Action/Notes
1.0	09/03/20	Creation of document.