



PensMeadowSchool

Living, Growing, Learning

Pre-Maths Policy

JANUARY 2025

NEXT REVIEW DATE: SEPTEMBER 2026

Member of Staff responsible: Assistant Head Teacher

Reviewed at the Meeting of the School Improvement Committee of the Governing Body

Dated: Wednesday 5 th February 2025
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Signed:

Name:

Disclaimer

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Policies

This policy should be read in conjunction with our:

- Maths Policy
- Assessment Policy

Introduction

Pupils working on the holistic and lower sensory pathways are working well below key stage standards and need specific targeted Pre-Maths teaching to support their developing attention and responses to stimuli and concepts.

Holistic and Lower-Sensory Learners

Pupils who experience profound and multiple learning difficulties or complex needs must experience and retain a series of pre-requisites for learning to create schemas on which to build their understanding of mathematical concepts. For most of our PMLD pupils gaining these prerequisites will be a continuous process throughout their time in school whilst our lower-sensory learners may make small steps of progress towards their identified targets.

Intent

At Pens Meadow, we understand that maths is all around us and develops important life skills for all pupils.

For pupils following the holistic and lower-sensory pathway our aims are for pupils to:

- Develop a wide range of practical and mathematical thinking; life skills.
- Use the skills of enquiry through manipulation, motor skills, sensory, perception and attention.
- Develop their core knowledge of object and spatial perception, social reaction and number sense.
- Use their sensory needs as channels for receptive learning through adaptation of the presentation of the provision to meet physical and sensory challenges.
- Explore and create marks, through sensory exploration, which are open to interpretation.

For pupils at very early stages of development, our mathematical curriculum enables them to have opportunities to build positive interactive relationships with others whilst proactively exploring the world around them and gaining an enjoyment of rhythms and numbers through songs, rhymes and story whilst exploring early number, shape, space and measures.

Implementation

Song of the month, rhymes and stories

Our maths culture lead plans appropriate songs of the month for all pupils across school. Pupils on the holistic and lower sensory pathways experience their focus songs enhanced with sensory experiences and objects of reference related to the song. This may be supported by staff modelling Makaton, positive looking, Big Macs and sensory sacks.

The song of the month is displayed on the maths wall in all classrooms.

A range of other songs and rhymes are planned into lessons to support different concepts and pupil's development at the relevant development steps.

Our school libraries are stocked with a wide range of up-to-date stories and non-fiction books with a mathematical theme. These books are used to develop an interest in maths in the world around us.

Fine Motor and Handwriting

Fine motor and handwriting is taught across Pens Meadow school for all pupils on holistic, sensory and semi-formal pathways. Pupils are assessed against our development document which was created in collaboration with Occupational Therapists. This document develops postural control and core stability before focusing on fine motor skills necessary for handwriting development.

Fine motor development is a crucial skill for mathematical development as it promotes 1:1 correspondence, movement and exploration of objects and recording ideas and theories. Therefore, for pupils working within our holistic and lower sensory pathways fine and gross motor development is also integrated within maths lessons.

For pupils at the beginning of this journey, banging actions gradually refine to more controlled dabbing, which may eventually synchronise to become capabilities such as making one-to-one marks, lines or groups.

Please see the Fine Motor and Handwriting policy for more information.

Groups and Timings

At Pens Meadow, maths is taught across the school in groups which support the pupil's individual learning pathways. This policy is followed by the following classes and learning groups.

2024-2025 Maths Holistic and Lower Sensory groups

Class/ group	Pathway	Timings across the week
Pink Class	Holistic Learners following the Early Development Pathway	4 days
Rainbow Class	Holistic Learners	4 days
Orange Class	Lower Phase Lower Sensory Learners	4 days
Daisies	Upper Phase Lower Sensory Learners	4 days
Elm Class	Key Stage 4 and 5 Lower Sensory Learners	3 days
Holistic Group	Key Stage 4 and 5 Holistic Learners	2 days

Other identified pupils in school may use the lower sensory pathway for maths within the learning groups.

Teaching and learning

For pupils working at an exploratory and sensory level, learning activities need to be hands on, short and often child interest led. This means that adults may often work 1:1 or 2:1 with pupils and model language through play and a simple commentary of the pupil's actions. Learning activities will be active and include exploration of objects, patterns, backgrounds, shapes and measures.

Pupils will need to explore concepts in a range of contexts and may need to repeat these for significant periods of time to demonstrate an understanding. They will need to revisit and review concepts in order to make links in their learning and develop schematic understanding.

Planning

Long Term Planning

Maths for Holistic and lower sensory pathway, pupils up to year 9, is based around a half termly theme whilst in key stages 4-5 it is based around their focused English text. This gives pupils a holistic learning experience linking their developing understanding in each subject to build schemas of the world around them through exploration and investigation. For information about these texts please see the Pre-English policy

Holistic Pathway Books (up to year 9)

Cycle A					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
All About Me	All about my friends and family	A pirate's life	Infinity and beyond	Magic carpet ride	

Cycle B					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Autumn	Celebration	Witches and wizards	Stepping back in time	Summer holiday	Perfect picnic fun

Sensory and Holistic Pathway (Key Stage 4 and 5)

Cycle A					
Autumn		Spring		Summer	
We are all Wonders	Maisie's Scrapbook	If you came to Earth		Splash Day	Hey Water
<i>Following trails</i>	<i>Hide and seek – big, little, on, under Animals – big and small Different building - blocks</i>	<i>Big and small</i>		<i>Filling and emptying Sequencing – getting dressed, get changed, swim, get changed, having a shower.</i>	<i>Spraying up and down Following pathways – rivers Hot and cold Patterns</i>
Cycle B					
The Nature Girls	Julian at the Wedding	Victor the wolf with worries	Natures Playground	The Extraordinary Gardener	
<i>Counting Patterns in same Movement in water</i>	<i>Cups, plates, cutlery, setting table Doilies, lace, patters Parachute – up and down, peek a boo</i>	<i>Size – big, small, medium sized.</i>	<i>Patterns – knitting 1:1 correspondence Stripes Dots</i>	<i>Size Time - sequencing</i>	
Cycle C					
A wild walk to school	Dear Earth	Oak, the little leaf girl	The magic of me	Stella and the Seagull	The concrete garden
<i>Filling and emptying Weetabix vs Shredded Wheat Time Balance Positional language Tall/ short, big and little Object permanence – leaving and returning</i>	<i>Big and small – big tree/ minibeast Packing – capacity of boxes – what will fit Seasons Number – how many will fit in the box?</i>	<i>Big and little Under, over, on Make dessert scene</i>	<i>Big and small Count features of the giant Colours and sequencing on cake 1:1 Correspondence in the feast, lots and one in the feasts. Sort by colour Junk model robots – 3d shape and size (number) Counting songs for aliens/ rockets Positional language in, out, across</i>	<i>Black and white contrasting pictures – printing – patterns, length Make bunting Toilet roll seagull</i>	<i>Shape – placing and arranging. Patterns Lines Curves Full and empty with objects</i>

Medium Term Planning

Our bespoke Pre-Maths Development Document focuses on developing the foundations of mathematical concepts for pupils to build upon. These are split into stage one and stage two.

Stage 1

- Object representation
- Awareness of people as agents of change
- Geometric spatial awareness
- Number sense

Stage 2

- Using depth perception
- Differentiating features
- Developing perceptual curiosity
- Observations
- Placing
- Grouping
- Redistribution
- Tracking
- Completing
- Connecting to meaning
- Corresponding and adapting new stimuli

Pupils work along the pre-maths development document track in chronological order developing their knowledge and skills. Fine and gross motor skills are taught alongside this track to support progress.

Short Term Planning

Pupil's individual targets are identified as their next steps from the development document as part of assessment for learning. Staff plan appropriate activities related to their targets following the coverage overview below.

Welcome to maths routine
Song of the month – this may include exploring objects related to the song, sensory experiences, sensory bags, simple role play etc.
Introduction to the theme with a specific focus from Pre-Maths development document – link to book, song, picture, game, exploration.
Personalised target activities – in small groups, 2:1, 1:1 working on a specific target from the development document.
Fine or gross motor development activities – in small groups or whole class, supported by the activities on the Pre-Maths development document.

Planning is uploaded onto TEAMS by 9am on Monday morning.

It covers:

- Related IEP targets
- The song of the month
- Teacher led modelling/ introduction
- Pupils identified step on the development track and their target for the lesson
- A description of the activity, resources for staff to follow and meet the planned target
- Mathematical focused fine and gross motor experiences

Example short term plan

Example Maths Plan					
Week beginning:			Date:		
Song for the week:					Resources
Monday	Introduction/ modelling this may be altogether or in smaller groups if more appropriate to the targets.				
Tuesday					
Thursday					
Friday					
Pupils	LQ/ Success criteria	Monday	Tuesday	Thursday	Friday
Pupils name Band x ALD – x cell	LQ will remain the same for the week however the success criteria may be adapted on the sticker over the week if necessary.	Activity description including staff member working with them, any resources, comments etc.	Activity description including staff member working with them, any resources, comments etc.	Activity description including staff member working with them, any resources, comments etc.	Activity description including staff member working with them, any resources, comments etc.
Pupils name Band x ALD – x cell					
Pupils name Band x ALD – x cell					
Pupils name Band x ALD – x cell					

Assessment for Learning

Holistic Pathway

Pre-Maths evidence, for pupils on the holistic pathway, should be collected every session and recorded on Evidence for Learning. These observations must at least include –

Videos and/or photographs,

Learning comment

TAGs

Pre-Maths learning target and engagement model indicators demonstrating:

- E – emerging,
- GS – Gaining skills
- S – Secure.

During assessment week at the end of each learning block at least one pre-maths observation must also include:

Comments by the indicators explaining why the pupils has been assessed at

- E – emerging
- GS – Gaining skills
- S – Secure.

Comments also include what happened and possible future adaptations.

All staff may record assessments on Evidence for Learning, however, the lead for the lesson must check and proofread before uploading onto the cloud.

For more information on the Engagement Model Indicators please see the Holistic Curriculum policy.

Lower Sensory Pathway

Evidence for pupils on the lower sensory pathway is collected in the same manner as the sensory and semi-formal pathways using the pupil's Maths books. This may be supported by videos on Evidence for Learning. For more information see our assessment , marking and presentation policies.

Summative Assessment

Summative assessment data is completed at the end of each assessment window in line with our assessment policy. For pupils on the holistic and lower sensory pathways this is completed on the data collection sheets on TEAMs and comprises of the identified step on the development track and broken down into emerging, gaining skills and secure.

Learning leads then complete the progress reflection sheet identifying the strengths, barriers to learning and planned interventions for the next assessment window. These are discussed at pupil progress meetings. Although we maintain high expectations for maximised progress for all pupils, due to the complex nature of the pupils on these pathways it is unlikely that progress will be rapid. It is likely that these pupils will need significant amounts of time to secure small steps of learning.

Resources

At Pens Meadow we understand that our pupils need a range of resources and strategies to maximise their learning opportunities. These may include:

- Real life objects to explore and count
- Man made and natural mathematical and non-mathematical objects to explore and count
- A range of related sensory experiences covering all senses.
- Play based activities including games, simple role play, small world and outdoor exploration
- Communication aids/ controlled devices
- Intensive Interaction
- Use of switches and Big Macs
- Positive Looking Boards
- Makaton signs and symbols to support understanding of print and text.

Impact

The impact of our Pre-Maths policy is monitored through both pupil's progress in their identified outcomes and also against the Engagement Profile. This takes a holistic view of pupil's engagement across all lessons and their development.

Pupil's progress is moderated at both planned extended SLT sessions and the Dudley SEND schools moderation group in line with our monitoring and evaluation policy.

Impact towards the holistic and lower-semi-formal curriculum pathways is monitored through the Core Curriculum school improvement action plan and reported regularly to governors.