

# Maths Progression Model (February 2022)

## Engagement

### Engagement and Highly Personalised Micro Steps (Pathway to Adulthood)

Learners continue to access an environment that develops social communication and emotional regulation through targeted transactional support (SCERTS). This enables them to have a voice within their community. Learners are supported in making healthy and safe choices and to maintain physical strength and movement wherever possible. Staff promote choice making and independence in a range of situations and provide access to community learning and social support. Maths skills are developed consequentially through stimuli on a personal basis; songs, counting, playing, therapies, community and problem solving. Prescribed learning is connected to individual PLIM targets.

### Engagement and Highly Personalised Micro Steps

Learners access a learning environment that develops social communication and emotional regulation through targeted transactional support (SCERTS). This enables them in becoming increasingly competent, confident and active participants in social interactions which improves their ability to regulate. Learners work towards being able to cope with transitions and actively engage with others. Maths skills are developed consequentially through stimuli on a personal basis; songs, counting, playing, therapies, community and problem solving. Prescribed learning is connected to individual PLIM targets.

Class 13

Class 10

Class 9

Class 5

Class 2

#### SCERTS

Language Partners

Literacy skills are developed consequentially through stimuli on a personal basis; songs, playing, therapies, community and problem solving.

Social Partners

Literacy skills are developed consequentially through stimuli on a personal basis; songs, playing, therapies, community and problem solving.

#### Symbolic Awareness

objects of reference, photographs, coloured symbols, black and white symbols, written words (sight)

#### Blank Levels 1

#### Engagement Model

#### Launchpad to Literacy

Launchpad for Literacy is an approach to literacy readiness. It also gives practitioners a tool to clarify what children can do, and identify developmental skill gaps by bridging the gap between spoken language and literacy through focussing on incremental sequences of skills (that may not be at the child's chronological age.)

## Core

### Vocational Learning (Pathway to Adulthood)

Maths is taught as a discrete subject. Learners consolidate and develop early KS1 maths skills in everyday practical situations. Learners are preparing for a standardised test in controlled conditions. PLIM targets have a strong influence on learning and help to create an enabling environment.

Maths is taught as a discrete subject. Learners develop fluency in functional mathematics which enables them to access their community with an appropriate level of independence. The majority of activities are practical which aids in the development of communication. There is a focus on PLIM targets to ensure that learners are prepared for the next stage in their journey.

Mathematical activities are set up as part of a wider engaging environment where PLIM targets drive learning intentions. There is a focus on developing maintenance and fluency of key functional math skills that learners will be able to use in their local communities with support.

### Modified Pre Curriculum Criteria - iASEND

Maths is taught as a discrete subject. Formal learning is blended with play and practical activities, the use of rewards and visuals are imperative. Concepts from the S curriculum are built upon and learners develop their mathematical skills at a National Curriculum KS1 / Pre-Key Stage Standards 2-5 level. PLIM targets influence the classroom environment and the expectations that are placed on individual learners.

Maths is taught as a discrete subject but PLIM's help structure the learning environment. Learners begin to access formal learning and an increased amount of demand is placed upon learners. Skills are progressed through exploration and experimentation. The use of rewards and visuals are imperative. Concepts from Cherry Garden are built upon and learners develop their mathematical skills at a Pre-Key Stage Standards 1-2 level.

Mathematical activities are set up as part of a wider engaging environment where PLIM targets drive learning intentions. Activities are play based where skills are progressed through exploration and experimentation. Maths concepts from iASEND and the Pre Key Stage Standards are built upon sequentially.

### Modified Pre Curriculum Criteria – Cherry Garden

Maths is taught as a discrete subject where PLIM targets mould the learning environment and teaching style. Learners begin to access formal learning, but many activities are play based where skills are progressed through exploration and experimentation. The use of rewards and visuals are imperative. Concepts from Cherry Garden are built upon and learners develop their mathematical skills at a Pre- Key Stage Standards 1-2 level.

Mathematical activities are set up as part of a wider engaging environment, activities are play based where skills are progressed through exploration and experimentation. PLIM targets direct learning for individual pupils.

Entry Level 1

Upper 2

Pre Entry Level Linear

Upper 1

Pre Entry Level Lateral

Upper 1

E (KS1)

Class 11

(Pre KS2 Standards)

Class 7

S (Pre KS1) Linear

Class 12

Class 11

Class 7

Class 6

S (Pre KS1) Lateral

Class 6

Cherry Garden Linear

Class 3

Class 4

Cherry Garden Lateral

Class 4

## Extended

### Accreditations (Pathway to Adulthood)

Maths is taught as a discrete subject. Mathematical skills are consolidated and developed in a formal learning environment. The learner applies skills to meet the demands of a standardised test in controlled conditions. PLIM targets ensure that learning is meaningful and skills can be functionally used when a learner leaves school.

Maths is taught as a discrete subject. Learners consolidate and develop KS2 maths skills in a formal learning environment in preparation for a standardised test in controlled conditions. PLIM targets ensure that all learning is purposeful and learners are prepared for the next stage.

Maths is taught as a discrete subject. Learners consolidate and develop KS1 maths skills in a formal learning environment in preparation for a standardised test in controlled conditions. PLIM targets guide learning and help to create a purposeful learning environment.

Maths is taught as a discrete subject. Learners consolidate and develop early KS1 maths skills in everyday practical situations. Learners are preparing for a standardised test in controlled conditions. PLIM targets have a strong influence on learning and help create an enabling environment.

Level 2 / GCSE

Upper 4

Level 1 / GCSE

Entry Level 3

Upper 3

Entry Level 2

Upper 3

Entry Level 1

Upper 3

### Modified National Curriculum Criteria - iASEND

Maths is taught as a discrete subject. The learning environment is formal, most pupils can regulate their emotions independently. Concepts from the N curriculum are built upon and learners develop their mathematical skills at a National Curriculum KS3 level. PLIM targets are purposeful in helping learners to prepare for future accreditations and work place experiences.

Maths is taught as a discrete subject. Formal learning is recognisable much of the time; play and practical activities are used to increase the depth of learning. Concepts from the E curriculum are built upon and learners develop their mathematical skills at a National Curriculum KS2 level. PLIM targets help to mould the learning environment and contextualise learning.

Maths is taught as a discrete subject. Formal learning is blended with play and practical activities, the use of rewards and visuals are imperative. Concepts from previous learning are built upon and learners develop their mathematical skills at a National Curriculum KS1 / Pre-Key Stage Standards 2-5 level. PLIM targets influence the classroom environment and the expectations that are placed on individual learners.

D (KS3)

Class 14

N (KS2)

Class 15

Class 8

E (KS1)

Class 7

## Cleaswell Hill Early Years

Cherry Garden follows the early years foundation stage model and provides the essential substance for all future learning. Learners access a socially and emotionally secure environment, with a less formal atmosphere, in which they can learn successfully and play purposefully. Mathematical skills are developed through exploration and experimentation. Prescribed learning takes place in a condensed format where an activity is completed in collaboration with one member of staff, this allows an initial judgement, on which pathway a learner should progress on, to be made. PLIM targets influence the classroom environment and the expectations that are placed on individual learners.

Class 1

## Maths Progression Model (February 2022)

**CPD:** iASEND Training (PFH), Qualifications training (DE, ES), Target setting training (PFH), Early Years Moderation (SO, AT), Phase Development (SO, HAp, HMcl, JM, ES), Launchpad to Literacy (AMc) SCERTS Training (RH, SO, ES) Talk Boost (HM), Blanks Levels and Colourful Semantics (RH, JW) GCSE Maths (AJ), Special School Maths Development (PFH), Special School Attainment and Progress Working party (PFH) White Rose Training (Classroom Leads) Resources Numicon Training Resources (Classroom Leads) Depth of Learning training (PFH), Triangulation (PFH), Mentoring Partnership (PFH, HM, JW).

**Content (Intent):** Teachers reflect on what content is necessary for pupils dependent on their; cognitive, behavioral, physical, communication and sensory needs. Targets are set to reflect this and pupils are set using a stage not age approach so they can access a curriculum that is specific and appropriate to their needs. The use of vocabulary is carefully considered by staff so it is not a barrier to learning. The order of teaching is based upon ensuring the most coherent acquisition of knowledge as well as empowering and inspiring pupils through development of skills linked to their EHCP and PLIM. Teachers plan systematic repetition of the most crucial content to make sure it can be used functionally across different contexts. Teaching and learning takes place within a range of contexts in order to improve mathematical aspects of learning across all situations and environments.

**Activities, Expectation and Challenge (Implementation):** Lesson activities are challenging to pupils academically and in regard to their EHCP targets. Personalised learning and individual outcomes are linked to pupil interests ensuring high expectations, appropriate challenge and retention of the content taught as well as the activity itself. Expectations are high for all pupils developing their cognitive, behavioral, physical, communication and sensory needs. Reward systems and visual aids are used to motivate learning where appropriate. Ability grouping ensures pupils are being challenged and planning is sequential over time, to deliver highly engaging and meaningful learning. For pupils working in the engagement pathway, the following strategies are used to develop shared attention: Intensive Interaction, Attention Autism, PECS, Makaton, Sensory Stories.

**Assessment and Progression (Impact):** Pupils make good progress by accessing appropriate content which is measured using a suitable assessment system. The curricula follow a progression model that identifies the most useful knowledge for cumulative sufficiency. Ongoing assessment identifies pupils that need further support. Teachers are aware of previous learning, current learning and future learning. There is a solid understanding of appropriate qualifications/accreditations for pupils to access in order to plan for future pathway opportunities, allowing challenging targets to be set in line with life goals. Some pupils (Engagement Pathway) make smaller steps of progress and this is accounted for and monitored through the specific assessment system (MAPP).

National standard assessment strategies (SATS, Pre Key Stage Standards, Engagement Model, GCSE, Functional Skills) are used to aid staff to choose the most appropriate assessment method to capture the achievements of all pupils at Cleaswell Hill.

**English, Literacy and Communication Interventions:** Appropriate feedback is given dependent on the needs of individuals, this models how content should be organised. Pupils use appropriate texts to stretch learning through word and real life problem solving. Pupils widen their vocabulary at an appropriate level with support from a range of professionals (SaLT and OT). Pupils have a plethora of opportunities to ask and answer questions and this is supported through the; blanks model, colourful semantics and SCERTS. Literacy and communication is focused upon further through small group literacy support from an academic mentor, ELS, sight reading, handwriting formation, Early Talk Boost, Talk Boost KS1, Talk Boost KS2, Nuffield Early Language Intervention (NELI), Colourful semantics, VOCA group, Communication book group, Lego based therapy.

**Cultural Capital:** Cultural Capital is the essential knowledge that children need to prepare them for their future success – in the world of work, in relationships forged throughout life and as a valued contributor to society. When beginning their Cleaswell Hill journey many children arrive to school with different and sometimes more limited experiences than others. Therefore, our aim is to give children the knowledge and skills to prepare them for what comes next in their lives. This includes the relevant communication skills and vocabulary needed throughout their education and the opportunity to link maths to real-world problem solving. With our firm belief that mathematical knowledge is transferable, our pupils are given every opportunity to participate in a wide range of learning experiences beyond their classroom. These experiences include educational visits to museums, adventure centres and community projects in and around Southeast Northumberland. They are also given regular opportunities to participate in area and national special school events which encourage the use of functional skills.

**Integrated Therapies:** There is a strong collaboration between therapy leads and teachers in planning enabling environments for all pupils. This includes the integrated planning of activities that develop communication, gross and fine motor skills as well as mathematical skills. Occupational therapist (OT) works closely with teachers to develop pre-writing and handwriting skills through multi-sensory and carefully graded approaches. There is also a strong focus towards developing access to information and communication technology (ICT) and the use of a range of software to ensure that pupils can record their learning and at a level commensurate to their ability.

**Pupil Premium::** Our approach, reinforced by research from the EEF, prioritises improvements in the quality of education and teaching, including supporting pupils' access to learning. Utilisation of the PPG will benefit wider pupil groupings in school, specifically raising the quality of interventions in supporting best outcomes. We continually monitor the progress and attainment of individual pupils as well as wider cohorts to ensure there is little variation in the performance of different pupil groups.

## Maths Action Plan (February 2022)

Area	Deep Dive (Outcomes)	Action	Time (Aim)	Who	Impact
<b>Engagement</b>	<ul style="list-style-type: none"> <li>To continue to develop functional skills linked to cognitive level through the use of the Launchpad for Literacy framework allowing pupils to further develop their communication skills.</li> <li>To develop staff awareness of activities that link to early mathematical concepts and the language they should model to develop the functional maths.</li> </ul>	<ul style="list-style-type: none"> <li>Cross reference Launchpad for literacy to early mathematical skills.</li> <li>Ensure all staff are aware of Launchpad for Literacy framework.</li> <li>Complete training on early mathematics concepts and language.</li> <li>Pathway meeting to focus on sharing best practise.</li> </ul>	<p>April 2022</p> <p>July 2022</p> <p>December 2022</p> <p>July 2022</p>	<p>PFH , ES , AMc</p> <p>PFH, ES, AMc</p> <p>PFH, ES, KMc</p> <p>ES</p>	<ul style="list-style-type: none"> <li>Learners within the engagement pathway will develop functional commination methods that use early mathematical language to develop their self-help skills and independence.</li> <li>Planned activities will aid in the development of functional communication methods that use early mathematical language.</li> </ul>
<b>Core</b>	<ul style="list-style-type: none"> <li>To develop the use of the mental oral starter to; recap learning across all mathematical areas.</li> <li>To use Numicon and White Rose to support the development of math skills, knowledge and concepts.</li> </ul>	<ul style="list-style-type: none"> <li>Create and share mental oral starter rationale.</li> <li>Coach, team teach and observe maths teaching across pathway.</li> <li>Classroom leads to access Numicon and White Rose training.</li> </ul>	<p>May 2022</p> <p>July 2022</p> <p>December 2022</p>	<p>PFH, JW, HM</p> <p>HM, JW, PFH</p> <p>HM, KMc, PFH</p>	<ul style="list-style-type: none"> <li>Mental oral starts will aid in the maintenance of mathematical skills by giving learners the opportunity to recall previously learnt skills.</li> <li>Staff will be confident in using the objects and resources linked to Numicon and White Rose to enhance the teaching of mathematics across school.</li> </ul>
<b>Extended</b>	<ul style="list-style-type: none"> <li>To develop the use of the mental oral starter to; recap learning across all mathematical areas.</li> <li>To use Numicon and White Rose to support the development of math skills, knowledge and concepts.</li> <li>To ensure that learners are suitable prepared for future qualifications they are cognitively able to access.</li> <li>To ensure that all learners, who are cognitively capable, begin working towards a qualification no later than the beginning of year 10 (Year 9 for those capable of doing GCSE).</li> </ul>	<ul style="list-style-type: none"> <li>Create and share mental oral starter rationale.</li> <li>Coach, team teach and observe maths teaching across pathway.</li> <li>Classroom leads to access Numicon and White Rose training.</li> <li>Qualification and accreditation leads to visit local secondary schools.</li> <li>Qualification and accreditation leads to access specific training from providers (AQA and Pearson's)</li> </ul>	<p>May 2022</p> <p>July 2022</p> <p>December 2022</p> <p>July 2022</p> <p>December 2022</p>	<p>PFH, JW, HM</p> <p>JB, PFH, JW, HM,</p> <p>KMc, PFH, HM</p> <p>PFH, JB, KMc</p> <p>PFH, JB, KMc</p>	<ul style="list-style-type: none"> <li>Mental oral starts will aid in the maintenance of mathematical skills by giving learners the opportunity to recall previously learnt skills.</li> <li>Staff will be confident in using the objects and resources linked to Numicon and White Rose to enhance the teaching of mathematics across school.</li> <li>All staff will have a secure knowledge of; where learners are, where they have been and where they are going in their mathematical journey.</li> <li>All pupils within the extended pathway will have gained a mathematical accreditation by the end of year 11. Those pupils who stay on for 6<sup>th</sup> form will gain a second accreditation.</li> </ul>
<b>Post 16</b>	<ul style="list-style-type: none"> <li>To ensure that functional maths is inked to the four areas of preparing for adulthood (employment, independence, community inclusion and health).</li> <li>To increase the amount of practical learning tasks to support engagement and scaffold understanding.</li> </ul>	<ul style="list-style-type: none"> <li>Phase staff to share best practise around preparation for adulthood.</li> <li>Classroom leads to access specific training around preparation for adulthood.</li> <li>Classroom leads to observe maths learning across school.</li> <li>Learning walks to focus on activities provided and the sequence of learning through school.</li> </ul>	<p>May 2022</p> <p>December 2022</p> <p>July 2022</p> <p>July 2022</p>	<p>ES, PFH, JB</p> <p>ES, KMc</p> <p>PFH, JB</p> <p>PFH, KMc, JB, ES</p>	<ul style="list-style-type: none"> <li>Within Post 16 education math teaching will be explicitly linked to the four areas of preparing for adulthood and staff will have a secure knowledge of how they are supporting pupils in their future pathway.</li> <li>All pathways will include aspects of practical learning tasks in post 16 education to support engagement and scaffold understanding.</li> </ul>
<b>EYFS</b>	<ul style="list-style-type: none"> <li>To ensure that all pupils who are cognitively able and emotionally regulated access daily mathematical activities to readily prepare them for future learning.</li> <li>To develop staff awareness of activities that link to early mathematical concepts and the language they should model to develop the functionality of maths skills.</li> </ul>	<ul style="list-style-type: none"> <li>Classroom leads to visit partner EYFS provisions to discuss how mathematical activities are promoted within their settings.</li> <li>Classroom leads to access some specific EYFS maths training.</li> <li>Phase staff to share best practise around early mathematical language.</li> </ul>	<p>July 2022</p> <p>December 2022</p> <p>July 2022</p>	<p>SO, PFH, ES</p> <p>SO, PFH, KMc</p> <p>SO</p>	<ul style="list-style-type: none"> <li>Those pupils who will go on to access the core or extended pathway will have daily opportunities to develop early mathematical skills and language to prepare them for future learning.</li> <li>All opportunities will be recognises and acted upon to develop early mathematical skills and language within the EYFS setting.</li> </ul>
<b>Whole School</b>	<ul style="list-style-type: none"> <li>To audit all maths resources in school and create a shared central area where resources can be collect</li> </ul>	<ul style="list-style-type: none"> <li>Create area to store and organise mathematical resources.</li> <li>Audit all math resources in school.</li> <li>Purchase any extra maths resources needed.</li> </ul>	<p>April 2022</p> <p>June 2022</p> <p>July 2022</p>	<p>PFH, BCh</p> <p>PFH, JW, HM, BCh</p> <p>PFH, JW, HM</p>	<ul style="list-style-type: none"> <li>All staff will be aware of where to find suitable maths resources to ensure that all maths lessons and activities are appropriately resourced. Practical and functional maths activities will be promoted due to quality resources being available.</li> </ul>