



High Mill Primary



Numeracy & Mathematics Position Statement

Devised June 2022

Rationale

High Mill Primary School endorses the Principles and Practice ideals outlined within Curriculum for Excellence, which recognises that Numeracy is a major component of primary education.

It states that: "Being numerate helps us to function responsibly in everyday life and contribute effectively to society. It increases our opportunities within the world of work and establishes foundations which can be built upon through lifelong learning. Numeracy is not only a subset of mathematics; it is also a life skill which permeates and supports all areas of learning, allowing young people access to the wider curriculum."

(Numeracy across learning: Principles and Practice)

Aims

- To close the attainment gap in Numeracy between the most and least disadvantaged children.
- To provide high quality learning for all pupils that is engaging with Curriculum for Excellence outcomes and experiences within Early, First and Second level (and beyond where appropriate).
- Develop a positive mindset towards Maths.
- Build life skills in using number, strategies and calculations in real life contexts.
- Extend opportunities for children to transfer skills and knowledge across different curricular areas.
- Promote partnership with parents and families to enable them to support their children's numeracy development.

Planning, Monitoring, Tracking & Moderation

Planning and Progression

When planning learning and teaching, teachers should:

- Start with the focus on learning and the outcome(s) to be developed.
- Plan a range of active learning opportunities which really engage children in their learning.
- Identify small steps for learning which will build on previous knowledge and skills and provide depth to experiences.
- Provide an opportunity for children to revisit activities and extend their learning.
- Contextualise learning by ensuring Numeracy and Mathematics is integral to all areas of the curriculum.
- Follow South Lanarkshire Council Numeracy and Mathematics Progression Pathways and High Mill Primary Planning Documents.
- These pathways are progressive from Experiences and Outcomes to Benchmarks across all levels. They are designed to support:
 - tracking
 - planning
 - monitoring
 - self-evaluation or target setting.

Monitoring and Tracking

Specific detail is contained within the Monitoring and Tracking Calendar. The following are some examples of practice within High Mill Primary which supports Numeracy and Mathematics.

Monitoring:

- Dialogue meetings conducted termly to discuss planning.
- Class Observations
- Jotter Monitoring and Pupil Groups (learning conversations)

Tracking:

- Attainment meetings conducted termly: pupils on/off track.
- Assessment evidence tracked within forward plan
- Termly evaluations of learning within forward plan
- ASN Meetings: identification and evaluation
- Top and bottom 20% data within forward plan

Moderation

- Peer visits/Learning Trios
- Change Maker group visits and discussions
- Collection of Evidence - Say, Write, Make and Do

Feedback and Reporting



- Peer, self and teacher assessed tasks used at all stages.
- Summative assessment linked to Numeracy Benchmarks.
- Peer discussion encouraged at all stages in numeracy.
- Learner conversations should take place regularly.
- Weekly Numeracy Award achievements to celebrate success.
- PLP targets should be set using feedback from learning.
- Termly Sharing the Learning provides updates and examples of learning.
- Class termly overview issued to parents outlining key focus for learning each term
- Two Parents' Meetings and annual written report issued.

Assessment

Assessment is regarded as an integral part of teaching and learning and is a continuous process. It informs planning and progression of learning. Assessments are both summative and formative across the elements of numeracy.

Summative

This is an assessment **of** learning, after learning has taken place. These include standardised assessments and high quality assessment tasks. e.g. MALT (all stages) SNSA (P1, P4 & P7)

Formative

This is an assessment **for** learning, informing next steps in learning. These include questioning, teacher/self/peer feedback, sharing learning intentions in each lesson, learning conversations

Specific guidance on assessment types and dates is included in the following documents: Assessment Framework and Formative Assessment Framework.

Evidence

Evidence of learning is gathered from a variety of sources to inform teacher judgement: e.g. observation, photographs, verbal explanation, written tasks

Challenge and Support

Getting It Right For Every Child (GIRFEC) supports children and young people to receive relevant help and support. At times in school, learners may require additional support for a variety of reasons. Staged intervention is the term used to describe the framework for support which is underpinned by GIRFEC.

Approaches to supporting numeracy in High Mill Primary include:

- Differentiation - adjustments made to support learners within the class. These may include changing the task, expected outcome is differentiated, or working with additional support in the class.
- The use of visual and concrete materials to support learners.
- Targeted support out with the class, in consultation with the ASN coordinator: such as IDL, 5-Minute Box, Catch Up Numeracy or Maths Recovery.
- Additional Support Plans: considering a wider range of needs. Targets are set and should be relevant, measurable and evaluated to inform next steps.
- Some learners benefit from specialised equipment and recommendations from specialists are implemented.

Approaches to Learning

In High Mill Primary we use a variety of approaches to promote effective learning in Numeracy and Mathematics:

- Learning intentions and co-constructed success criteria
- Play-based learning in a variety of environments and contexts.
- Active learning using visual and concrete materials.
- Planned active learning which provides opportunities to observe, explore, investigate, experiment, play, discuss and reflect.
- Real life contexts used to engage and motivate learners
- Developing problem-solving capabilities and critical thinking skills.
- Skills focused success criteria with links to skills for learning, life and work.
- Opportunities for collaborative learning, discussion, communication and explanation of thinking.
- Modelling and scaffolding learning.
- Use of relevant contexts and experiences for learners.
- Using digital technology in appropriate and effective ways - including Clever touch, Beebots and online games and resources.
- Provide opportunities to celebrate achievement - e.g. certificates, Twitter, assembly.
- Following on from a consultation in 2021, homework grids feature maths activities for additional practice.

Structure of an effective Numeracy & Mathematics Lesson

Excellence and equity for our learners can be achieved through delivering high quality Numeracy and Mathematics learning experiences in a well-structured and consistent manner. At High Mill Primary, we follow an eight part lesson structure as follows:

1. Interactive Mental Number Session (10/15 minutes daily) We facilitate this through the Number Talks Programme.
2. Sharing of Learning Intentions - pupils are made aware of the learning that they will be working on in this lesson.
3. Modelling of concepts and skill development - teacher models the concept being taught.
4. Co-construction of Success Criteria - children are involved in collaboratively creating success criteria based on the learning intention and teacher modelling.
5. Differentiated Direct Teaching - further direct teaching should now take place to meet the range of learner needs. Concrete, pictorial and abstract materials may be used to support delivery and enhance skill development.
6. Learner Activities - learners will now take part in a range of differentiated activities which will allow them to apply their learning in both familiar and unfamiliar contexts. This could be in the form of group work, paired or independent learning.
7. Assessment - this may be formative assessment to allow the teacher to check understanding or may be a more formal summative task.
8. Learning Review - whole class or group re-capping on learning intentions and success criteria and allowing opportunities for children to identify the next steps in their learning.

(Numeracy and Mathematics Learning Teaching and Assessment Manual - SLC 2021)

Concrete/Visual

- Visual recognition of number representations in different formations
- Developing a sense of number through:
 - Spatial patterns
 - Ten frames
 - Finger patterns
 - Subitising

Problem Solving

- Thinking Time and reflection
- Reasoning skills
- Higher Order Thinking Skills

Numeracy

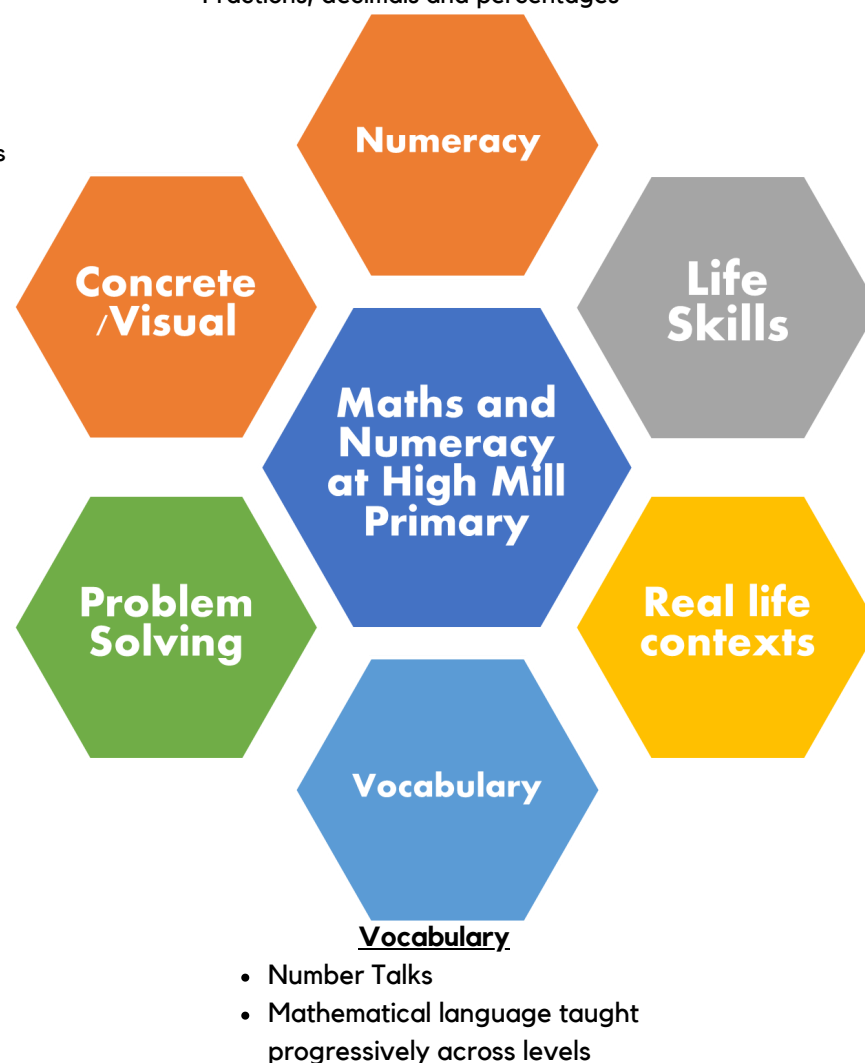
- Numerical strategies are taught both verbally and in written format.
- Verification of strategies discussed
- Estimation and rounding
- Number and number processes
- Fractions, decimals and percentages

Life Skills

- Money
- Time
- Measurement
- Family Learning

Real life Contexts

- Problem solving
- STEM
- Enterprise Activities
- Developing Young Workforce



Vocabulary

- Number Talks
- Mathematical language taught progressively across levels

Number Talks

A Number Talk is a short (10-25 minutes) ongoing daily routine that provides learners with meaningful ongoing practice with computation. A Number Talk is a powerful tool for helping learners develop computational fluency because the expectation is that they will use number relationships and the structures of numbers to add, subtract, multiply & divide. Number Talks helps to build flexibility, accuracy & efficiency in mathematical thinking through the articulation of, and sharing of, mental maths strategies. Accuracy denotes the ability to produce an accurate answer; efficiency refers to the ability to choose an appropriate strategy for a specific problem and flexibility means the ability to use number relationships with ease in computation. **Accuracy is not as important as efficiency or flexibility in a true Number Talks session.**

Maths Recovery

Maths Recovery is a teaching programme which draws on research into children's early number knowledge and builds on this to develop number skills and strategies.

All staff are engaging in Maths Recovery training to ensure a consistent approach across the school.

Maths Recovery forms the building blocks of children's mathematical understanding. This is progressive and helps build a strong understanding and ability to use number and critically develop the learner's skill in using the four key number operations.

The progression builds on the following areas:

Number words and numerals



Structuring numbers



Counting, addition and subtraction



Two-digit addition and subtraction



Multiplication and division