Struthers Primary School

Numeracy and Mathematics Policy

2025

Rationale

At Struthers Primary School, we aim to provide high-quality, consistent learning in numeracy and mathematics. Our approach reflects national and local priorities, promoting equity, confidence, and real-life application of skills. We value mistakes as learning opportunities, use digital tools effectively, and support staff to strengthen pedagogy, ensuring all learners are challenged, supported, and inspired to flourish, achieve, and belong.

Article 3 Everyone who works with children should always do what is best for each child.	Article 4 The government should make sure that all these rights are available to all children.	Article 12 We have the right to say what we think should happen and be listened to.	Article 23 We have the right to special care and support if we have a special need.	Article 28 We have the right to learn and go to school.	Article 29 We have the right to become the best we can be.

Flourish Achieve Belong

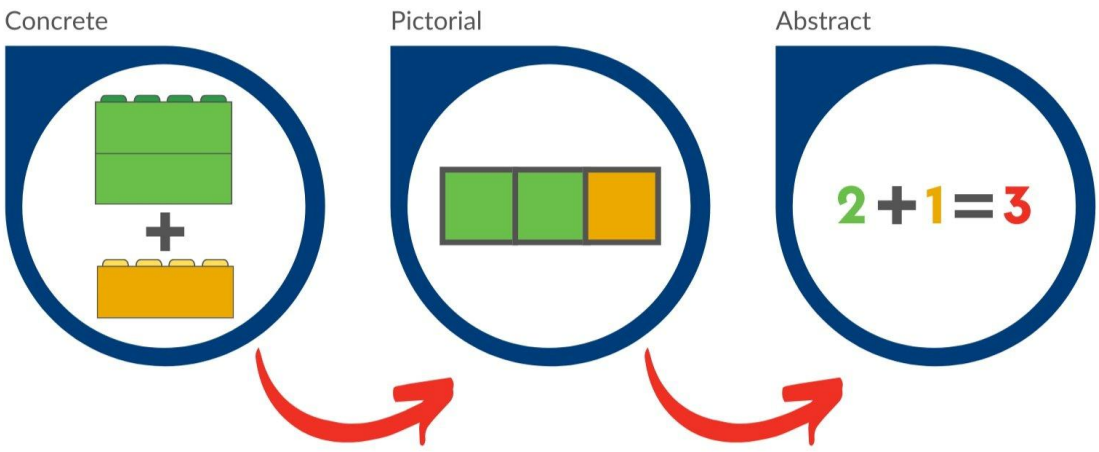
The **Aims** of this policy are:

- To provide consistent, high-quality learning and teaching in numeracy and mathematics.
- To promote equity and ensure all learners are appropriately challenged and supported.
- To develop confident, motivated learners who see themselves as capable mathematicians.
- To connect learning to real-life contexts and meaningful problem-solving.
- To use digital technology effectively to enhance understanding and engagement.
- To foster collaboration, reflection, and professional learning among staff.
- To ensure learners flourish, achieve, and belong through a positive mathematical culture.

Our Approach

Concrete – Pictorial - Abstract

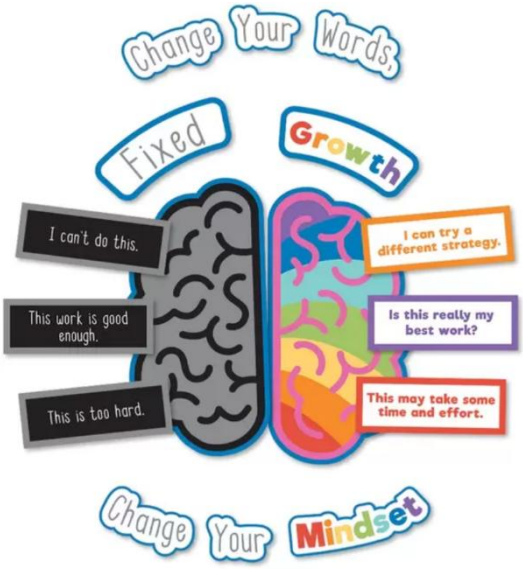
- At all levels, learners are given opportunities to develop and articulate their thinking using concrete materials and visual representations. As they develop efficiency, improved decision making and capacity for abstract thought, learners can articulate this thinking using more abstract representations.
- The goal is not to move learners on from using manipulatives as soon as possible. The use of manipulatives is essential as a means of communicating thinking and supports a more in depth and effective assessment of this thinking.



Mathematical Mindsets

Positive attitudes to maths are fostered through effective teaching and learning practices where learners understand the importance of mistakes and productive struggle, leading to increased resilience and engagement.

Maths anxiety is reduced through having a shared understanding of contributing factors and effective practice.



Planning

Planning for maths will be primarily guided by the CfE Experiences and Outcomes, as well as the Benchmarks, that can be found in planning folders. Teachers should design lessons and experiences for pupils that will engage, support and challenge them, allowing pupils to transfer skills across concepts. Numeracy and Maths lessons may look different across the stages however they should all have a blend of direct teaching, collaboration, pupil led learning and formal written methods too. The aim of having a breadth of experiences will challenge, motivate and engage all pupils in activities. Teachers have autonomy over maths groupings; however, these groups should remain flexible and responsive to learners' progress. Pupils should not be limited by fixed groupings or perceived ability levels. Every child should have the opportunity to achieve success across all areas of mathematics.

Maths Pathway

At the beginning of each academic year, teachers will work collaboratively to create a **Maths Pathway** for their stage, outlining coverage and progression across each level Early, First, Second, and, where appropriate, Third. These Pathways should remain responsive to the needs and development of learners.

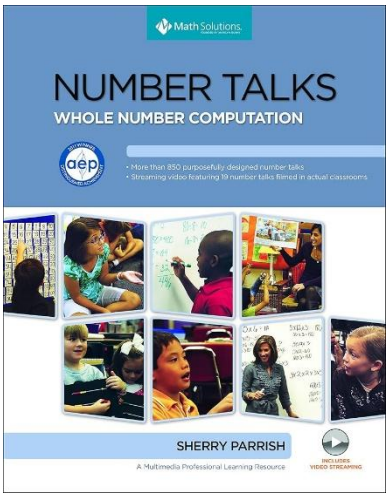
Staff are encouraged to integrate numeracy meaningfully across the curriculum where relevant opportunities arise. For example, during a WWII topic exploring rationing, teachers may plan activities that link to measure and weight outcomes. Alternatively, during Scots Week, pupils could create tartan patterns using symmetry and shape.

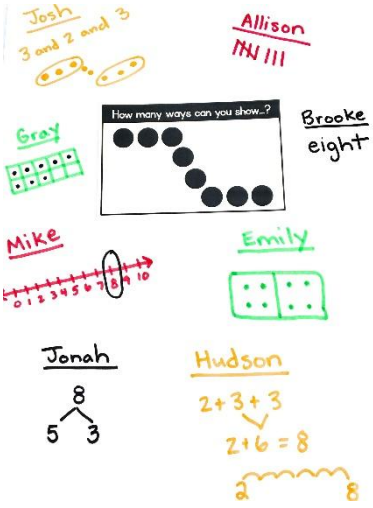
Topics	Week 1	Week 2	Week 3	Week 4	Week 5	Week 7 and 8	OCTOBER BREAK	Week 9 and 10	Week 11 and 12
	Electricity (IDL topic)	Electricity (IDL topic)	Electricity (IDL topic)	Electricity (IDL topic)	Black History Month	Black History Month		Black History Month	4 Zones of Regulation
	Place Value MNU 2-02a MTH 2-12a	Addition MNU 2-03a MNU 2-03c MNU 2-03b	Addition MNU 2-03a MNU 2-03c MNU 2-03b	Subtraction MNU2-03a MNU 2-03c MNU 2-03b	Subtraction MNU2-03a MNU 2-03c MNU 2-03b	Multiplication MNU 2-03a MNU 2-03c		Division MNU 2-03a MNU 2-05a MNU 2-03c	Angles MTH 2-17b

Number Talks

Number Talks is a classroom practice designed to help students develop their mental math skills, number sense, and mathematical reasoning. During a Number Talk, the teacher presents a short, open-ended problem, and students solve it mentally, sharing their strategies and reasoning aloud. This process encourages collaboration, builds confidence, and fosters a deeper understanding of numbers and operations. It focuses on flexible thinking and

multiple approaches rather than a single correct answer. Number Talks are often short (5–15 minutes) and aim to complement other areas of the maths curriculum.





Assessment

Formative Assessment

Learners' progress within the significant aspects of learning in Numeracy and Mathematics will be evidenced as practitioners and learners gather, observe, and reflect on progress in relevant knowledge, understanding, skills, attributes, and capabilities. Formative assessment is continuous and integral to daily learning and teaching, supporting pupils to understand their next steps and make improvements.

Summative Assessment

Class teachers should use end-of-topic assessments to gather evidence of pupils' learning in specific concepts. These assessments should be used at the teacher's discretion to inform future planning. For example, if a group of pupils found a particular concept challenging, this area could be revisited later in the academic year. Alternatively, teachers may choose to group outcomes or topics together to create high quality assessments.

Overviews of these assessments should be stored in class teachers' **purple assessment folders**, and pupil copies should be filed in **termly box files**.

Standardised Assessments

- **Headstart Assessments** will be carried out in **September** and again in **May**. Completing these at these times allows teachers to identify areas for consolidation and track progress over the year. From 2024 onwards, data will be available to support tracking and analysis. It is recommended that teachers administer the assessment pitched at the year pupils have most recently completed, as this ensures questions align with previously taught concepts.
- **The *Basic Numeracy Assessment*** is a tool used at the class teacher's discretion to provide a quick overview of a pupil's grasp of basic number processes and calculations. It is an effective way to identify a numeracy age for pupils aged between 6 and 12 years.
- **GL Assessments (Granada Learning)** will be administered **once at the end of each academic session**. The data from these assessments should be analysed and used to inform planning for the next class.

- **National Standardised Assessments (NSA)** will be completed by pupils in **P1, P4, and P7** in line with national guidance.

Resources

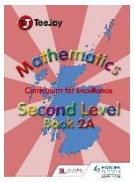
Several resources are available to support and supplement possible experiences and outcomes and it is the responsibility of staff to familiarise themselves with these to make professional judgements of when to use these to help improve learning.

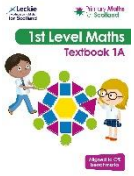
Digital

- White Rose Maths (10 teacher accounts available) https://whiteroseeducation.com/
- Maths Box School Subscription https://www.mathsbox.org.uk/
- Reflex Maths Fluency https://reflex.explorelearning.com/
- Corbett Maths https://corbettmathsprimary.com/
- Interactive manipulatives and games - Maths Bot, ICT Games, PolyPad, Didax, Toy Theatre

Textbooks

- TeeJay
- Leckie
- Spotlight





These textbooks are located in the shelves in the middle areas of the upper end.

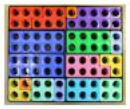
Concrete Materials

Each class has a designated storage unit for concrete materials to support our CPA (Concrete, Pictorial, Abstract) approach. This allows easy access to everyday mathematical manipulatives for use in teaching and learning.

The contents of each trolley are age- and stage-appropriate, and each class is responsible for maintaining and organising their resources. Staff are encouraged to share materials with other classes when required to ensure equitable access for all learners.

Classes also have a range of concrete resources to support learners, examples are:






There is a large movable trolley inside the GP room containing *Dienes materials* to support pupils' understanding of place value. Additional resources for other mathematical contexts - for example, trundle wheels and measuring tapes for Measure, or stopwatches and teaching clocks for Time - are stored in the large transparent boxes on the right-hand side of the GP cupboard. Staff are asked to return all resources neatly after use and to report any missing or damaged items to ensure materials remain accessible and in good condition for all classes.

Mental Maths

- CLIC
- Number Talks (Block of teaching the strategies)
- TJ verbal questions and answers
- Numeracy BluePrint boards

Additional Resources

- Numicon materials. Teacher handbooks are available for P1-P4 but can be used in upper primary too.
- Nrich Problem Solving Challenges for all pupils who required additional challenge.
- Scottish Mathematical University Challenge for all Aptitude based P7 pupils.

Scottish Maths Week

Each year, our school applies for a mathematics grant to enhance learning experiences and promote engagement during *Scottish Maths Week*. This funding supports creative, real-life projects that bring numeracy and mathematics to life for our learners.

This year's project, *Numbers in Nature*, focuses on exploring multiplication through outdoor learning. Pupils will design and plant arrays using bulbs and natural materials, allowing them to visualise and apply multiplication concepts in a meaningful, hands-on way. This approach connects mathematical learning with the environment, encouraging curiosity, problem solving, and teamwork across stages.

Primary 1

In Primary 1, children explore numbers through a play-based learning approach within a number-rich environment. Numeracy and mathematics are embedded throughout daily experiences, allowing children to make natural connections in meaningful contexts.

Learning opportunities include number songs, rhymes, and games to develop early counting skills and number recognition. Children are supported to form numbers correctly and to build a secure understanding of numbers within 10, progressing beyond this as they are ready.

Ten frames are used regularly to make thinking visible and to support children in developing a strong sense of number. Pupils use the language of *'Fast 5'* and *'Total 10'* to describe combinations and patterns, helping them to build fluency, confidence, and flexibility in early number work.

P2-7 Approach

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Primary 7, learning continues to build on the continue to use the **Concrete–Pictorial–** conceptual understanding and to support practical materials, visual representations, and

feature, teaching becomes **increasingly** growing needs of learners. A variety of teaching styles are used to ensure all pupils are engaged and challenged, including direct teaching, guided practice, cooperative learning, and opportunities for independent application.

Across P2-7, there is a clear emphasis on developing fluency, reasoning, and problem-solving skills. Lessons are carefully sequenced to build confidence, consolidate understanding, and promote mastery, while still providing scope for exploration and creativity in mathematical thinking.

Wider Experiences

At Struthers Primary School, we believe that high-quality numeracy and mathematics experiences extend beyond the classroom. Teachers are encouraged to provide a range of wider learning opportunities that allow pupils to apply their mathematical thinking in meaningful, real-life contexts.

Outdoor learning plays a key role in this, offering rich opportunities for problem solving, teamwork, and creative thinking. Activities such as measuring in the environment, collecting and analysing data, exploring symmetry in nature, or applying multiplication through planting and design help make learning active and relevant.

Through these wider experiences, pupils also develop important *metaskills* such as self-management, social intelligence and innovation - essential skills that help them to flourish, achieve, and belong both in school and beyond.

Parental Involvement and Family Learning

We recognise the vital role parents and families play in supporting numeracy and mathematics learning. This year, we provided an input at our Welcome Night to share key approaches and strategies with families.

Follow-up, hands-on sessions will take place throughout the year, tailored to Early, First, and Second Levels, giving parents practical ways to engage with their child's learning at home. As part of this, we aim to myth-bust common

maths misconceptions and reduce maths anxiety among parents, helping to create a positive and confident approach to mathematics across our whole school community.

As part of their weekly homework, pupils are given **maths activities that reinforce and consolidate the learning taking place in class**. These tasks are designed to build confidence, promote regular practice of key skills, and encourage positive home school partnerships in supporting numeracy development.