

Maths Week Scotland 2026: Early Learning and Childcare experiences

Introduction

This resource provides adult-led experiences that support high-quality interactions and thoughtfully planned spaces. These should be considered alongside the responsive opportunities that emerge through children's play.

By observing, interacting with and responding to children, practitioners can build on and extend mathematical thinking in meaningful ways.

Mathematical learning happens through the interactions, experiences and spaces they encounter.

Interactions: recognise and extend mathematical ideas through observation, conversation and shared thinking.

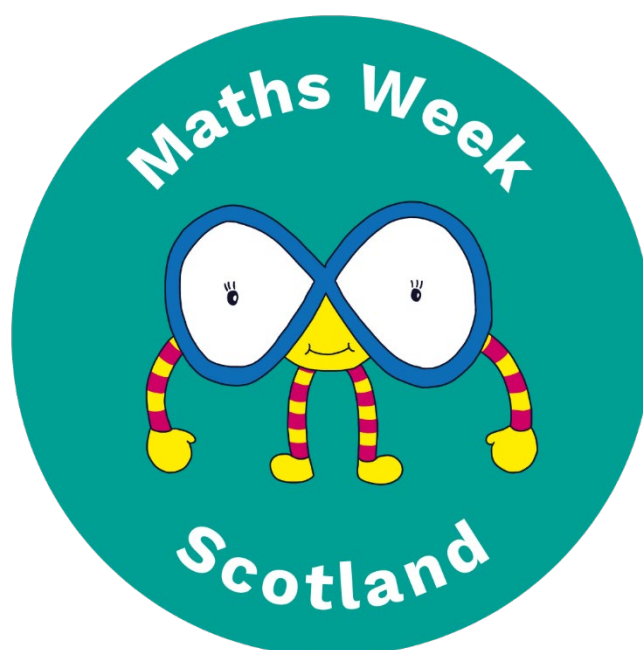
Experiences: grow from children's interests, curiosity and exploration - thoughtful questions, resources and challenges can help deepen learning.

Spaces: encourage children to explore, investigate and apply mathematical ideas in different ways.

Each experience includes guidance to help practitioners identify opportunities that connect with children's interests and strengths. Use the suggested experiences to extend, deepen or enrich the learning already taking place.

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Maths Week Scotland Mascot Finn Finity

Growth, movement and wellbeing

Children are naturally interested in themselves. Exploring growth, movement and wellbeing provide meaningful opportunities to investigate:

- position and movement
- estimation and comparison
- measurement and numbers

Explore the language of measure

You may wish to use a story such as Jack and the Beanstalk or Goldilocks and the Three Bears to encourage children to explore the language of measure.

These stories provide opportunities to discuss size, height, length and comparison in meaningful and engaging ways.

Standard and non-standard measuring

Use a range of standard and non-standard measuring options, such as using hands and feet to measure, cubes, and measuring tapes.

You may also wish to include a height chart, foot measuring tool and materials for mark making so that children can record and represent their thinking.

Encourage children to investigate, estimate and compare their findings:

1. Can they find other things to measure?
2. Which tools are they going to choose to use?
3. What do they think will be the tallest, longest or shortest?
4. How might they record or share their discoveries?

Modelling mathematical language

Language that can support exploration and play includes:

- measure, compare and estimate
- tall and taller
- short and shorter
- long and longer
- height and length
- big and small
- more and less
- equal and the same as
- above and below
- count and how many
- hand spans and footsteps

Local partners

Consider inviting local partners who help care for our bodies to share how they use maths in their work.

Build and create

Building and creating help children explore:

- numbers
- measurement
- shapes and patterns
- estimation and problem solving

Designing, constructing, and adapting ideas encourages mathematical thinking through meaningful, hands-on experiences.

There are many stories that can be used as a stimulus for building and creating. The Three Little Pigs could be used to explore materials and structures, while The Something by Rebecca Cobb can inspire wonder, imagination and creativity.

Build a place

Invite children to create a place for something or someone. This might be:

- a place for a tiny creature
- a space to hide in
- somewhere to rest
- somewhere to play
- somewhere to keep something safe

Giant and tiny creations

Invite children to create things of different sizes. This might include:

- something bigger than a teddy
- something smaller than a hand
- something taller than a block tower
- something wide enough to roll a ball through

Children decide what they create and how they approach the challenge.

As children explore, encourage them to compare, estimate and adapt their designs. Support them to test:

1. How do they decide which materials to use?
2. What changes do they make?
3. How might they extend their creations?

Modelling mathematical language

Language that can support exploration and play includes:

- tall and short
- narrow and wide
- high and low
- big and small
- giant and tiny
- beside and between
- above and below
- compare, measure and estimate
- more, less and equal

Stories and mathematical thinking

Stories provide meaningful contexts for exploring mathematical ideas.

Through familiar characters, events and problems, children can explore:

- numbers
- patterns
- measure
- position
- sequence

You may wish to use a story as a stimulus for mathematical thinking and conversation.

What opportunities do stories provide for children to explore, create, investigate and represent their ideas?

Scottish Book Trust

The Scottish Book Trust has a collection of books about numbers as a starting point for identifying stories that inspire mathematical thinking.

Recreate the story world

Invite children to represent places, journeys and events from a story in their own way. They may choose to build, design or map aspects of the story world, drawing on their understanding of shape, space, measure and position.

Become a story problem solver

Encourage children to explore the problems and challenges within a story.

1. How might a character solve a problem?
2. Could there be more than one solution?
3. What might happen next?

Small world storytelling

Offer loose parts, natural materials and small world resources to support children in retelling, adapting or extending stories.

Children may create new adventures, characters or endings while exploring mathematical ideas.

Story treasures

Invite children to collect, sort, organise and display objects connected to a story.

Children may choose their own criteria for grouping, comparing and arranging their treasures. Explore what they have chosen to represent the objects or people in the story.

Story makers

Encourage children to create and share their own stories.

Their stories may include journeys, patterns, size, shape, number, measure or other mathematical ideas that are meaningful to them.

As children explore, encourage them to explain their thinking, make predictions, compare ideas and represent their understanding in different ways.

Modelling mathematical language

Follow children's interests and encourage them to explain their thinking using mathematical language. Look for opportunities to explore number, pattern, measure, position, movement and sequence through children's responses to stories.

Music and movement

Music and dance help children experience:

- numbers
- patterns and relationships
- measurement
- position and movement

Repetition, movement and beat support children's developing mathematical understanding.

Music and movement provide rich opportunities to explore pattern, measure, rhythm and sequence.

Through listening, creating and responding to music, children can investigate mathematical ideas in meaningful and enjoyable ways.

Sound investigators

Provide a range of materials that can be tapped, shaken, plucked, struck or filled.

Encourage children to investigate how changing the size, length, or quantity of materials affects the sounds they create.

1. What do they notice?
2. How can they change the sound?

Music makers

Invite children to create their own instruments using open-ended materials.

Children may wish to compare sounds, combine instruments, work collaboratively or invent new ways to make music.

Music in the environment

Encourage children to listen for and record sounds in different environments.

Ask them:

1. What sounds can they hear indoors and outdoors?
2. Can they sort, compare or recreate them?

Move to the music

Explore a variety of musical styles and encourage children to respond through movement.

As children dance, they may notice and create repeating movements, sequences, rhythms and patterns of their own.

Rhythm and pattern

Invite children to invent clapping patterns, movement sequences, rhythms or dances for others to follow.

Children may also enjoy adapting and extending each other's ideas.

Encourage them to compare, predict and identify patterns. Ask them to explain their thinking:

1. What changes when a sound is altered?
2. Does the sound go on for a longer or shorter time?
3. Can they create a pattern that repeats?

Local partners

You may wish to invite musicians, dancers or family members from your local community to share how counting, pattern and rhythm support what they do.

Modelling mathematical language

Language that can support exploration and play includes:

- pattern, repeating and sequence
- rhythm and beat
- count and how many
- more and less
- same and different
- compare and estimate
- long and short
- high and low
- loud and quiet
- fast and slow
- Community engagement

Explore and investigate

Exploring direction helps children understand and describe the world around them. Movement, navigation and route-finding support:

- spatial awareness
- problem-solving
- mathematical language
- position and movement

Following children's interests, provide open-ended opportunities that encourage them to explore direction, movement, maps, routes and pathways.

Where are you Finn Finity

Hide photos of Finn around your setting and encourage children to find him using clues, maps or directional language.

Children may wish to take turns hiding Finn, creating maps, giving directions or recording routes for others to follow.

Going on a Finn hunt

Use We're Going on a Bear Hunt as a stimulus for an outdoor adventure. Work with children to design routes, journeys and obstacles.

Children might navigate over, under, through or around different features while discussing the language of position and movement.

Maps and routes

Provide opportunities for children to create maps of familiar spaces, design treasure hunts, or plan routes for friends to follow.

Children may also enjoy using programmable toys, where available, to explore direction, sequencing and problem-solving.

As children investigate, encourage them to make predictions, compare routes and explain:

1. How many steps might it take?
2. Which route is shorter?
3. How could they help someone else find their way?
4. Can children record their route on video to support another child to find Finn?

Modelling mathematical language

Language that can support exploration and play includes:

- forwards and backwards
- left and right
- over, under and through
- around, beside, behind and next to
- first, next, before and after
- route, direction and map
- count and steps

You may wish to provide visual prompt cards to support children's use of mathematical language and directional vocabulary.

Clothing, fabrics and design

Clothing, fabrics and design are filled with mathematical patterns. Exploring what we wear helps children notice, create and talk about:

- patterns and relationships
- collecting, organising and displaying

Clothing, fabrics and design are filled with mathematical patterns. Exploring what we wear helps children notice, create and talk about patterns in everyday life.

Patterns can be found in clothing, fabrics and materials from home, within the local community and across different cultures.

You may wish to use a tartan kilt as a starting point for exploring pattern, colour and design.

Design for Finn

Encourage children to create a kilt, outfit or fabric design for Finn using materials and media of their choice.

Children may wish to draw, paint, print, weave, collage or use digital technology to represent their ideas.

Pattern detectives

Invite children to look closely at the patterns around them:

1. What patterns can they find in their own clothing, fabrics, blankets or other textiles?
2. What do they notice about the colours, shapes and repeating elements?

Patterns from home and beyond

Invite children to explore fabrics, clothing and designs that are meaningful to their families and cultures.

Children may notice similarities, differences and recurring patterns while sharing stories and experiences.

Create, extend and transform

Provide loose parts, natural materials, fabrics and craft resources that allow children to create, continue or adapt patterns in their own way.

1. What happens when a pattern changes?
2. Can they create a new one?

As children explore, encourage them to notice, describe, compare and create patterns.

1. How do they know a pattern repeats?
2. What might come next?
3. How are a range of patterns the same or different?

Modelling mathematical language

Language that can support exploration and play includes:

- pattern, repeating and sequence
- same, different and match
- colour and shape
- stripe and spot
- order, next, before and after
- more and less

Sport and physical activity

Exploring mathematics in active contexts helps children see how maths supports everyday experiences. This can include:

- counting scores
- comparing results
- measuring distances
- tracking time
- exploring position and movement
- recognising patterns

Move, measure and compare

Invite children to explore movement through active play, games and sport.

Children may wish to compare distances, count actions, measure jumps, create routes or investigate different ways of moving.

Encourage them to notice and discuss the mathematics involved as they play and explore.

Design and play

Provide opportunities for children to invent games, create challenges or design obstacle courses using available resources.

Children can develop their own rules, scoring systems, routes and movement patterns while testing, adapting and sharing their ideas with others.

1. Encourage children to compare results, make predictions and explain:
 1. How do they know which route is longer?
 2. How could they keep score?
 3. What helped them complete a challenge?
 4. How fast did they complete it?

Modelling mathematical language

Language that can support exploration and play includes:

- forwards, backwards
- fastest, slowest
- up, down
- over, across
- between, above, below
- more, less
- most, least
- first, second, third
- compare, measure
- count, how many

Local partners

Consider who from your local community could help provide new and engaging sporting experiences for children.

Nature and the outdoors

Nature is rich with opportunities to notice:

- patterns and shape
- sorting and grouping
- numbers and measure

Exploring the natural world helps children develop mathematical curiosity and understanding.

Take this learning outdoors and involve children in collecting natural materials.

Encourage children to photograph or record their discoveries and creations using cameras or other digital tools.

Bug safari

Provide children with magnifying glasses, binoculars and clipboards to explore the insects, birds and other living things in their local environment.

Encourage children to count, compare, record and describe what they find.

Natural art inspirations

You may wish to explore the work of land artist Andy Goldsworthy, who uses natural materials to create striking outdoor artworks.

His work can provide inspiration for children to create their own patterns, designs and sculptures using the materials they collect.

Sorting nature treasures

Invite children to collect and sort natural materials. They might choose to sort by size, colour, shape or type.

Encourage children to decide their own sorting criteria and explain their thinking.

Building and comparing

Provide opportunities to build with stones, wood slices, sticks or pine cones.

Children might choose to build towers, compare heights and lengths, estimate and test ideas, create routes or pathways.

Patterns and symmetry

Invite children to create repeating patterns and symmetrical designs using natural materials. They might create

- repeating patterns such as leaf- stone–leaf–stone
- symmetrical butterflies or flowers

Use a line or a stick as a mirror line. Encourage them to share their thinking and explain:

1. How have they sorted their objects?
2. What patterns can they find or create?
3. Which structure is taller? How do they know?
4. What shapes can they see in the natural environment?

Modelling mathematical language

Language that can support exploration and play includes:

- pattern, repeat
- sort, group
- same, different
- count, estimate, more, less
- shape, circle, triangle
- symmetry, match
- tall, taller, short, shorter
- compare, collect
- next, beside

Growing and preparing food

Growing and preparing food helps children experience mathematics in meaningful ways through:

- estimation and measurement
- comparison and sorting
- grouping and sharing

Food and growing offer rich opportunities for children to explore mathematics in everyday contexts. Planting, caring for and preparing food encourages children to solve problems through meaningful experiences.

Planting and growing

Engage children in planting experiences. Grow cress, lettuce, mint, chives, parsley, peas or spring onions.

Encourage children to count seeds, measure plants, compare growth, check temperatures, pour water and talk about changes over time.

Preparing snack or simple foods

Provide opportunities to:

- wash and prepare fruit and vegetables
- measure ingredients
- count and share portions

Encourage children to make predictions, estimate quantities and compare results.

1. What do they notice?
2. How much do they need?
3. How can they share food fairly?

Table setting

Children can help prepare spaces for eating by:

- counting plates, cups and bowls
- matching one plate to each child
- sorting and organising cutlery

Explore positional language such as next to, beside or in front of. Discuss quantities and encourage children to share their thinking and explain:

1. How many have they got?
2. How many more do they need?
3. What happens if more people join the table?

Modelling mathematical language

Language that can support exploration and play includes:

- count and measure
- compare and estimate
- more, less, enough and share
- full and empty,
- heavier and lighter
- taller and shorter
- first, next and beside
- how many and altogether

Local partners

Consider inviting a catering assistant, gardener or other community partner to share how they use maths in their work.

Mathematics in our community

Exploring our community helps children recognise how maths supports the people, places and roles they encounter daily. Including:

- numbers and money
- measurement
- time, position and movement
- information handling

Imaginative play around people who help us is often a familiar part of children's play.

Invite children to explore the people, places and services that make up their community. Consider inviting local partners, family members, or community groups to share how they use maths in their work.

People who help us

Provide a range of open-ended resources to support role play and storytelling. Children might choose to recreate and explore roles such as:

- shopkeeper
- postal worker
- doctor or nurse
- firefighter
- builder
- bus driver

Encourage children to think about the mathematics involved in these roles.

How do people count, measure, compare, organise or solve problems as part of their work?

Exploring our community

Provide open-ended materials which allow children to represent, recreate and extend their observations. Children can:

- create maps of familiar places
- design shops, roads or buildings
- sort and organise resources
- make signs, tickets, or menus
- plan journeys and routes

Encourage them to share their thinking and explain what they notice:

1. Where do they see numbers?
2. What needs to be measured?
3. How do people solve problems in their community?
4. How might they record or represent their ideas?

Modelling mathematical language

Use this resource as an opportunity to focus on the mathematical language, concepts and problem-solving involved in everyday community roles.

Feedback

We use your feedback to improve the information and resources we share. Complete the [Education Scotland Maths Week Scotland resource pack evaluation](#) to tell us what you think.

