Examples to support learning

Count down to forthcoming events on the calendar in terms of number of days or sleeps. Refer to the days of the week, and the day before or day after, ‘yesterday’ and ‘tomorrow’.

Encourage children in their own ways of recording (for example) how many balls they managed to throw through the hoop. Provide numerals nearby for reference. Suggestions: wooden numerals in a basket or a number track on the fence.

Ask children to get you several things and emphasise the total number in your conversation with the child.

Discuss mathematical ideas throughout the day, inside and outdoors. Suggestions:

• “I think Jasmin has got more crackers…”

• support children to solve problems using fingers, objects and marks:

“There are four of you, but there aren’t enough chairs….”

• draw children’s attention to differences and changes in amounts, such as those in stories like ‘The Enormous Turnip’.

Occasionally ask children how many there are in a small set of two or three.

Encourage children to talk informally about shape properties using words like ‘sharp corner’, ‘pointy’ or ‘curvy’. Talk about shapes as you play with them: “We need a piece with a straight edge.”

Regularly say the counting sequence, in a variety of playful contexts, inside and outdoors, forwards and backwards, sometimes going to high numbers. For example: hide and seek, rocket-launch countdowns.

Point to small groups of two or three objects: “Look, there are two!”

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Use small numbers to manage the learning environment. Suggestions: have a pot labelled ‘5 pencils’ or a crate for ‘3 trucks’. Draw children’s attention to these throughout the session and especially at tidy-up time: “How many pencils should be in this pot?” or “How many have we got?” etc.

Mathematics

3 & 4 year olds

Count things and then repeat the last number. For example: “1, 2, 3 – 3 cars”. Point out the number of things whenever possible; so, rather than just ‘chairs’, ‘apples’ or ‘children’, say ‘two chairs’, ‘three apples’, ‘four children’.

**1**

A picture containing icon

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Description automatically generatedA picture containing white, light

Description automatically generatedA picture containing white, light

Description automatically generatedShape, circle

Description automatically generated

Examples to support learning

Discuss position in real contexts. Suggestions: how to shift the leaves off a path or sweep water away down the drain.

Provide experiences of size changes. Suggestions: “Can you make a puddle larger?”, “When you squeeze a sponge, does it stay small?”, “What happens when you stretch dough, or elastic?”

Take children out to shops or the park: recall the route and the order of things seen on the way.

Provide a variety of construction materials like blocks and interlocking bricks. Provide den-making materials. Allow children to play freely with these materials, outdoors and inside. When appropriate, talk about the shapes and how their properties suit the purpose.

Encourage children to play freely with blocks, shapes, shape puzzles and shape-sorters.

Talk with children about their everyday ways of comparing size, length, weight and capacity. Model more specific techniques, such as lining up ends of lengths and straightening ribbons, discussing accuracy: “Is it exactly…?”

Provide complex train tracks, with loops and bridges, or water-flowing challenges with guttering that direct the flow to a water tray, for children to play freely with.

Sensitively support and discuss questions like: “What is the same and what is different?”

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Set up obstacle courses, interesting pathways and hiding places for children to play with freely. When appropriate, ask children to describe their route and give directions to each other.

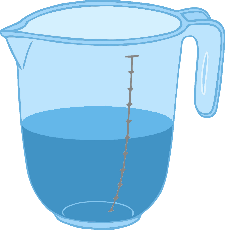
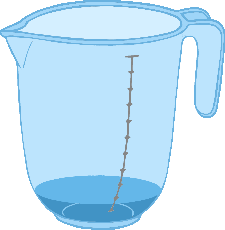
Mathematics

3 & 4 year olds

Use spatial words in play, including ‘in’, ‘on’, ‘under’, ‘up’, ‘down’, ‘besides’ and ‘between’. Suggestion: “Let’s put the troll under the bridge and the billy goat beside the stream.”

**2**

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A picture containing text

Description automatically generatedIcon

Description automatically generated with medium confidenceA picture containing plant

Description automatically generatedA picture containing text, arch, bridge

Description automatically generated

Examples to support learning

Provide patterns from different cultures, such as fabrics.

Use vocabulary like ‘morning’, ‘afternoon’, ‘evening’ and ‘night-time’, ‘earlier’, ‘later’, ‘too late’, ‘too soon’, ‘in a minute’.

Provide shapes that combine to make other shapes, such as pattern blocks and interlocking shapes, for children to play freely with. When appropriate, discuss the different designs that children make.

Talk about patterns of events, in cooking, gardening, sewing or getting dressed. Suggestions:

• ‘First’, ‘then’, ‘after’, ‘before’

• “Every day we…”

• “Every evening we…”

Occasionally suggest challenges, so that children build increasingly more complex constructions.

Talk about the sequence of events in stories.

Engage children in following and inventing movement and music patterns, such as clap, clap, stamp.

Read stories about journeys, such as ‘Rosie’s Walk’.

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Provide a range of natural and everyday objects and materials, as well as blocks and shapes, for children to play with freely and to make patterns with. When appropriate, encourage children to continue patterns and spot mistakes.

Mathematics

3 & 4 year olds

Use tidy-up time to match blocks to silhouettes or fit things in containers, describing and naming shapes. Suggestion: “Where does this triangular one /cylinder /cuboid go?”

**3**

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