

Learning Pathway

Goals in stages for Mathematics Each goal has a corresponding activity plan

Number

Number and Place Value Stages 1 & 2

Moves one out of a group of items with support.

Tolerates feeling items co-actively one at a time with adult.

Co-actively explores groups of things.

Fixes attention on an object.

Listens to/ watches items related to number songs, counting to 3.

Responds when a second item is presented to them.

Co-actively explores 1 thing.

Fixes attention on a stimuli.

Number and Place Value Stage 3

Explores sets of items that are the same.

Attention shift from adult to object with verbal or physical prompts.

Attention shift to each object in counting song as adult identifies it.

Maintains hold on two items simultaneously.

Experiences listening to number names in song and rhyme.

Attention shift to each object as it is highlighted.

Actively explores 2 things.

Number and Place Value Stage 4

Actively takes part in counting activities/ rhymes.

Allow an adult to count their fingers in counting game.

Aware that gone or none means they are all gone in a counting song.

Anticipates the end of a familiar sequence.

Number and Place Value Stage 5

Distinguishes between one and lots when shown one item and a group.

Joins in saying number name in number rhyme or song.

Knows when to join in with an action in a song.

Knows lots or many is more than two.

Can indicate understanding of number names 1 and 2.

Identifies 1 item.

Indicates 2 items.

Knows each item receives only one number in a count.

Indicates a set of 1 item from 3 sets with different numbers of items.

Indicates a set of 2 items from 3+ sets of different numbers.

Indicates a set of lots/many.

Make up sets of items to 3.

Understands 1-1 correspondence pairing items to objects in a range of contexts. Consistent counting of objects to 3.

Number and Place Value Stage 6

Joins in rote count to 5, saying number names in correct order.

Makes up sets of items to 5, demonstrating an understanding of the concept of numbers to 5.

Number and Place Value Stage 7

Knows items can be counted in any order and it comes to the same amount.

Join in rote count to 10.

Count objects to 5 reliably.

Number and Place Value Stage 8

Knows last number in the count represents the total number of the count.

Count up to 10 items in a group.

Join in rote count beyond 10.

Continue count from small number given up to 10

Use ordinal numbers in practical situations.

Addition and Subtraction Stage 3

Uses 'gone' and all gone.

Attention shift from 1 item to another moving head.

Anticipates vanished item will reappear e.g. jack in box.

Addition and Subtraction Stage 4

Notices when a quantity alters significantly.

Responds to the word 'and' in adult led practical activities.

Addition and Subtraction Stage 6

Understand and use 'more' in relation to quantity. Understands when there is more or less in 2 sets.

Addition and Subtraction Stage 7

Know how to add one item to a set.

Can take one away from a set.

Addition and Subtraction Stage 8

Use real-life materials (e.g., apples or crayons) to add and subtract 1 from a group of objects and indicate how many are now present.

Reliably counts forwards or backwards in a game to 6.

Finds total number in 2 groups by counting all of them.

Fractions

Stage 3

Explores cutting/tearing with variety of materials.

Fractions

Stage 4

With practical help cuts up an item and shares it with one friend.

Fractions

Stage 5

Demonstrates understanding of word 'share' with one other person.

Fractions

Stage 6

Divides an item to share between a small group.

Fractions

Stage 7

Find two halves of an item or picture.

Fractions

Stage 8

Divides a large set of items equally between a small group.

Number Line and Sets

Stage 6

Knows numbers can be used to describe any kind of set of items.

Indicate the next number in a counting song to 3.

Number Line and Sets

Stage 8

Make simple estimate of number in set 0 to 10 and then counts to check.

Recognise groups of items to 5 on sight or feel.

Numerals

Stage 6

Matches numerals 1,2 and 3 to set of size.

Recognises numerals 1,2 and 3.

Numerals

Stage 7

Recognise numerals to 5.

Understand the consistency of numbers in relation to set size.

Numerals

Stage 8

Match numerals to 5 to corresponding set.

Vocabulary / Maths Symbols

Stage 8

Use more, less / fewer to describe difference in 2 sets.

Measure

Size / Area

Stages 1 & 2

Releases items to give them to an adult when asked.

Co-actively feels items of different sizes.

Size / Area

Stage 3

Explores creating structures of different sizes with 1-1.

Explores different sized items.

Experiences things altering in size or weight.

Size / Area

Stage 4

Sorts big and small items when the difference marked with support.

Sorts long and short items when the difference is marked with support.

Size / Area

Stage 5

Selects big items from a choice of big or small.

Compares items by size when the difference is marked.

Size / Area Stage 6

Makes size comparisons between items and uses ' bigger' and 'smaller'. Sorts groups of big and small items when the difference is not great. Identifies the big or small object from a selection of two.

Compares the size of items when the difference is not great.

Size / Area

Stage 7

Graduate sets of different sizes big bigger biggest.

Size / Area Stage 8

Compare 2 objects placed side by side and indicate size difference.

Size / Area Stage 9

Describe difference between objects using comparative terms of height and length.

Measure

Time

Stages 1 & 2

Experience cues for activities.

Anticipate stimuli that occur over and over repeatedly.

Responds to start and end of activity/ stimuli.

Time

Stage 3

Takes part in turn taking games in small group of up to 4 with 1-1.

Shows anticipation of favoured activity when given cue .

Experiences now and next board with 1-1 support.

Time

Stage 4

Anticipates next step within very familiar activity.

Anticipate a significant part in a song/ rhyme or story.

Time

Stage 5

Shows an understanding of 'before 'and 'after'.

Shows an understanding of 'now' 'next' and 'later'.

Time

Stage 6

Follows own timetable for the day.

Time

Stage 7

Orders and sequences more than 3 familiar events.

Understands that a clock tells the time.

Time

Stage 8

Knows names of days of the week.

Identifies weekend day names.

Recalls main activities of week / weekend/holidays.

Uses and understands simple time vocabulary e.g. hour, month.

Measure

Weight

Stages 1 & 2

Experiences items of different weight on body parts.

Weight

Stage 4

Places or indicates where to place items on balance scales.

Weight

Stage 7

Can identify the heavy item using balance scales.

Weight

Stage 8

Compares weight of objects using heavier and lighter when difference significant.

Measure

Money

Stage 3

Exchanges items with an adult i.e. giving and receiving games.

Money

Stage 4

Identifies money is exchanged for items with a familiar game of shopping.

Explores feel, size shape and materials of coins.

Money

Stage 5

Goes shopping and knows they exchange money for goods.

Demonstrates an understanding of the concept of transaction.

Money

Stage 6

Knows that different goods cost different amounts.

Matches coins to pictures/ photos of, or actual coins..

Money

Stage 8

Plays games with different value coins with support.

Match and sort coins of different values.

Measure

Capactity / Volume

Stage 3

Handles range of containers in play situations.

Capacity / Volume

Stage 4

Fills and empties containers with support if needed.

Capacity / Volume

Stage 5

Identifies the full or empty container.

Capacity / Volume

Stage 7

Uses the vocabulary full/empty.

Capacity / Volume

Stage 8

Estimate "how many will fit in", in practical situations and check answers.

Shape and Pattern

Shape

Stages 1 & 2

Co-actively feels outline of different shapes.

Experiences different shapes with their bodies over, in, and on top of things.

Co-actively feels items of different shapes.

Explore items that are the same.

Fixes attention on a stimuli.

Shape

Stage 3

Explores properties of shapes in play.

Uses fingers to feel edges of shapes or items with 1-1 support.

Non-specific joining of things in play/art.

Actively explores object by touch on own for up to 1-2 minutes.

Makes simple toy work.

Explores sets of different items.

Shape

Stage 4

Handles and experiences 2D flat shapes.

Handles and experiences 3D shapes.

Specific joining of things in play / art.

Sort objects by type.

Matches two identical representations.

Shape

Stage 5

Find matching pair from a collection.

Understands same.

Copies simple structures of 3 or 4 items.

Matches 1 piece to correct position in simple inset puzzles.

Find the correct lid for a container.

Explores inside and outside of shapes.

Traces some 2D shapes.

Copies a circle.

Shapes Stage 6

Completes a simple shape sorter.

Identifies some 3D shaped items by name from choice of two e.g. ball, tube or box.

Completes simple inset puzzle.

Completes 3 pieces of a jigsaw.

Uses 2D shapes to play/ create.

Understands different.

Identifies items that roll from group of 3D shapes.

Matches basic 2D and everyday shapes that are exactly the same.

Understands inside and outside.

Picks out basic 2D shapes and matches them to shapes in pictures.

Confident sorting and matching using a variety of items.

Sorts objects according to a stated characteristic e.g. sorts triangles and squares.

Shapes

Stage 7

Identify the odd one out in a row of shapes.

Matches 2D shapes: kite or diamond, star and oval.

Understand and use the words straight and round to describe shapes.

Completes complex shape sorter.

Copies a square or rectangle.

Shapes

Stage 8

Understand the vocabulary corner and edge in relation to shape.

Copies or makes ball and cylinder shapes.

Selects specific 2D and 3D shapes in picture building and construction.

Shapes

Stage 9

Responds to questions using simple mathematical vocabulary related to shape.

Shapes

Stage 11

Names some common 2D shapes from pictures of shapes. Relates shape to everyday objects.

Shape and Pattern

Pattern

Stages 1 & 2

Consistently prefers specific colour of lights.

Experience patterns of actions and sounds.

Shows more interest in pattern than plain visual or tactile object.

Experiences environments of light and colour.

Explore range of materials.

Pattern

Stage 3

Moves objects to create groups or bundles.

Moves in response to strong sound beat but may not be in time.

Pattern

Stage 4

Match/sort basic colours from a choice of 2.

Matches picture to picture choice 2.

Matches object to picture from choice of 2.

Pattern

Stage 5

Matches pairs of patterned objects or pictures.

Copies two actions in sequence.

Pattern

Stage 6

Copies a simple repeating pattern using real life materials.

Continues simple repeating pattern using real life materials e.g. apple.

Pattern

Stage 7

Uses 2D shapes to make a simple pattern.

Knows and uses same and different in different contexts.

Pattern

Stage 8

Continues a more advanced pattern using real life materials e apple, orange apple. Recognise patterns in the environment and copy them.

Copies a more advanced pattern using real life materials e.g. apple, apple orange.

Position and Direction

Position and Direction

Stages 1 & 2

Co-actively make things move.

Experiences different body positions.

Joins in activities that involve changing directions.

Co-actively explores some landmarks on a route.

Position and Direction

Stage 3

Awareness of items or people to the side of them.

Anticipation on identification of landmark on way to activity.

Position and Direction

Stage 4

Directs or finds own way to familiar area of school.

Understands object permanence, finds hidden object.

Position and Direction

Stage 5

Plays in and out games using containers.

Follows an arrow symbol or pointer.

Knows where to look for familiar things in class.

Works out simple solutions to practical tasks.

Position and Direction

Stage 6

Places items in and out of containers on request.

Understands 'up' and 'down'.

Understands 'below' and 'above'.

Position and Direction

Stage 7

Understands "next to" and "beside".

Follows directional instruction to find items.

Knows if they are moving forwards or backwards.

Understands "behind" and "in front" and "on top of".

Position and Direction

Stage 8

Follows request to make something move forwards or backwards.

Identify first and last one in a row.

Understands 'between'.

Statistics

Stages 1 & 2

Makes things move.

Statistics

Stages 3

Explores sets of different items.

Persists at a task beyond first attempt.

Statistics

Stage 4

Arranges groups of identical items in different ways.

Uses trial and error to explore fitting objects together, not necessarily completing task.

Statistics

Stage 5

Uses symbols or pictures to chart weather with support.

Collect sets of items and displays them as an object graph.

Statistics

Stage 6

Records answers to a simple question survey of 2 choices.

Records number in a set or collection using pictures/ symbols/ items.

Statistics

Stage 7

Finds solution to simple problem e.g. finds missing part/item.

Conducts a survey and display results in simple picture graph with support.

Understands and uses a dice, recognising number of dots on the face.

Statistics

Stage 8

Conducts a simple survey and uses tally marks to collect results with support. Reads a simple block graph to identify which of 2 columns has more/ less. Estimates quantity required for task, and then checks.

Relates planning of activity to actually doing the activity.

Makes a simple block graph.