

Estimating

Estimate how many stairs, how many steps, how many cars?

When you are out on a walk find everyday objects in the environment to estimate and count.

How many steps to the local shop?

Estimate the steps and then count using a step counter/phone or google maps. Your estimation skills develop the more you work on them so repeat this activity often. You will find you become more accurate.

Remember an estimate is a rough answer not the exact answer.

Plan, estimate and count steps for routes to the local park, library or supermarket.

Collecting and Displaying Information

How many cars can you see and how many of each type?

Vehicles on the road	Number of vehicles
Car	IIII
Bus	IIII
Lorry	II
Van	IIII
Motorbike	II

Create a tally chart and decide what the criteria for your search will be, e.g. colour of vehicle, type of car or type of vehicle. Use tally marks to keep track of what you see.

Alternatively choose something from nature to record, e.g. types of leaves, animals or birds.

How can you display your information?

Make a graph or table on the ground using leaves or stones to represent each item being counted. If you have chalk you could add tally marks.



Place Value

How high can you count?

Who likes to jump? Jump on the pavement slabs or on and off a kerb, (in a safe place) counting in 2's, 5's and 10's.

Bang a fence or the ground with a stick keeping a rhythm, as you walk, count in your chosen multiple at the same time. Count forwards and backwards. Counting backwards is always trickier. Start from numbers other than 0 to make it trickier.

Number Processes

Equal Groups

Make a variety of equal groups. This is the first steps in multiplication and division.

How many groups have you made, how many are in the group, how many altogether? What does equal mean?

Use objects from nature to make the groups, items such as pebbles, pinecones, leaves etc. Take a photograph of your groups or record on paper.

Arrays

Arrays are rows and columns of objects. They are all around us. On walls, windows fences etc.

What array patterns can you find around your local area?



Look for array patterns, make your own arrays using your toys or stones or items from the garden/park. Record how many rows, how many columns and how many altogether?

Counting in Tens

How many bundles of ten do you have?

Collect sticks or twigs and put them in bundles of ten. How many bundles do you have and how many sticks altogether? Use the bundles of ten to help you work out your ten times table.

What is 100 take away 40?

Use your bundles of ten sticks to add and subtract multiples of ten, think of questions and answers e.g. what is 30 add 20, 80 take away 40 etc. use the sticks to help you work out the answers.

Numeracy and Mathematics In the Outdoors

First Level Home Learning Planner



Parent/Carer/Child Planner

Symmetry

Can you make a symmetrical picture?

Use natural objects to create a symmetrical picture, you could use a stick to show the line of symmetry. Challenge yourself and make a picture with 2 lines of symmetry.



“Learning outdoors can be enjoyable, creative, challenging and adventurous and helps children and young people learn by experience and grow as confident and responsible citizens who value and appreciate the spectacular landscapes, natural heritage and culture of Scotland.”
(Curriculum for Excellence through Outdoor Learning)

Measure

Length

What is the longest/shortest?

Gather a variety of sticks, as you gather them estimate if they are longer/shorter than the previous one. Lay them out in order from shortest to longest.

Volume

How much does it hold? In the garden gather a variety of containers. Use a litre bottle as your measure. Estimate and fill other bottles to see how much they hold. Sort the containers into groups: less than a litre, about a litre more than a litre. Repeat with a half-litre measure and other containers.

Area

Build a den in the garden or park. Use sheets of newspaper to measure the base of the den.

How many sheets of newspaper does it take to cover the floor of the den? If you don't have newspaper use pages from a magazine.

Shape

Shape Hunt – What shapes can you see?

Explore your local area and look for different shapes, name the shapes and identify how many edges and how many corners?

The local play park is a good place to start.

What shapes can you make? Collect sticks in the park and make 2D shapes on the grass Use string or wool with the sticks and challenge yourself to make 3D shapes, how many edges, and how many corners have the got?



Pattern

What kind of repeating patterns can you make?

Choose natural objects from the garden or park. Create a pattern using two or 3 items, can you repeat your pattern. Make your pattern more complicated by using more objects. Taken a photograph of your pattern if you are able to.

What patterns can you see around the environment? Look at leaves, animals and insects, what patterns can you see?



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