



Te pāngarau | Maths

There are many opportunities for tamariki to explore maths in their play, and in the world around them. Maths includes counting, sorting, matching, measuring, estimating, pattern-making, sequencing, (e.g. large to small), comparing items, size, colours, weight, volume, and much more.

Links to Te Whāriki

The **Communication | Mana** reo strand, has a focus on tamariki experiencing environments where mathematical concepts from a range of cultures are evident and integrated into play. An environment where tamariki can explore maths | pangārau play (**Exploration | Mana aotūroa**) provides opportunities for them to develop working theories | te rangahau me te mātauranga about spatial understandings, and where they learn strategies for active exploration, thinking, reasoning and problem solving | te hīraurau hopanga.





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Maths can help tamariki to:

- › learn to count, weigh, and measure
- › learn to analyse and solve problems
- › develop hand-eye coordination and muscles
- › understand shapes, sizes, and patterns
- › solve problems, estimate, predict, compare, classify, and notice differences and similarities.

Adults can support tamariki by:

- › having a positive attitude to maths
- › drawing attention to shapes, patterns, and numbers in their everyday environment
- › pointing out the maths in everyday situations
- › taking opportunities to introduce mathematical language
- › choosing songs about numbers, counting, or words
- › encouraging them to use mathematical ideas in different places and cultural contexts.

Every day there are plenty of chances for tamariki to learn about maths

- › counting, e.g. dogs in the street or red cars that pass
- › singing number songs and rhymes, e.g. in the bath or in the car
- › identifying numbers, e.g. on letter boxes, number plates, or road signs
- › sorting, classifying objects, e.g. colours, metal, wood, or plastic
- › measuring, e.g. length of footsteps, weight of pumpkins, or height of tamariki, capacity of a water jug
- › comparing sizes, e.g. stones, shells, houses, or animals
- › identifying shapes, e.g. round road signs or square windows
- › Identifying patterns within kōwhaiwhai and carvings
- › experiencing spatial awareness, e.g. going through tunnels, or being up high, inside, under, on top of a fort or large box.

Providing for maths

Maths can be found and supported in every area of play. Talking about how puzzles fit together, blocks of different shapes and sizes, and the patterns in kete, tapa cloths, kowhaiwhai, and whāriki are opportunities to introduce maths concepts like sequence and patterns. Adding different sized cups and containers to water play gives tamariki hands-on experiences with maths ideas like capacity and volume.

***Note:** Always be aware that infants and toddlers like to mouth objects so keep a close eye on them around small and pointy objects.*