

Shape game 2

Purpose:

The purpose of this activity is to help your child to make and correctly name common (3 dimensional) solid shapes, talk about their distinctive features, and also about the flat shapes they can see on their solid shape.

Link to NZ Curriculum:

Your child is learning to sort objects by their spatial features, name these, and recognize two-dimensional shapes that are the faces of 3 dimensional shapes.

NB. The flat shapes of the faces or 'sides' are two-dimensional shapes are also known as 'plane shapes'.

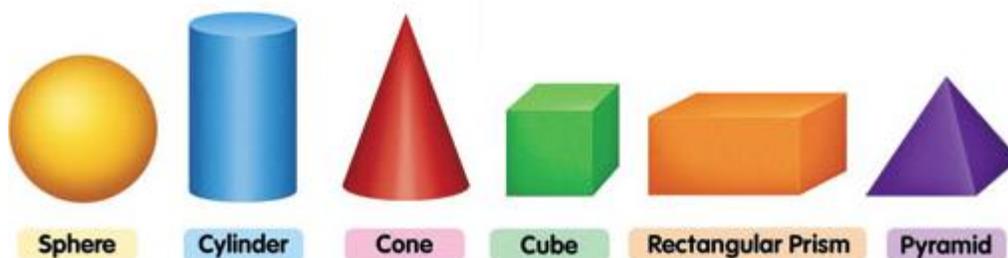
What you need:

Play dough

A plastic knife, or 'safe' kitchen knife

What to do:

- Have your child use the dough to make a cube, a cylinder, a sphere, a cuboid (long cube or rectangular prism), a square based pyramid and a cone.



- Ask them to name the shapes one at a time and tell you about the features of each. These should include the number of vertices ('corners') it has, the number of edges it has, and the number of flat faces ('sides').

For example "The square based pyramid has 5 vertices (corners where 3 edges meet), 8 edges (where 2 'sides' or faces meet), and 5 faces, of which one is a square and 4 are triangles."

Now play a game in which you take turns to make a solid shape with the dough, but do not let the other person see the shape.

Take turns to ask specific questions about the shape, using the features identified above, until the shape is correctly identified by the person who is guessing.

For example: Your child makes a shape that you can't see. You ask, "Has it got 5 vertices?" Your child says, "No." You now know that they have not made a pyramid. You then ask, "Has your shape got 2 faces that are circles?" (You are thinking of a cylinder). Your child says, "No." and so on.

What to expect your child to do:

- Correctly make and name common three-dimensional shapes.
- Correctly identify the features of common three-dimensional shapes.
- Name the two-dimensional (plane) shapes (squares, circles, triangles, oblongs/rectangles) that are the faces. For example, a cube has 6 faces ('sides') that are squares.

He Kupu Māori:

play dough	poikere
shape	āhua
round	porotaka
straight	torotika
sharp, pointy	koi, whakakoikoi
curvy, bendy	kōpiko
flat	papatahi
cone	koeko
cube	mataono rite
corner, vertice	kokonga
edge	tapa
surface/face	mata
cone	koeko
cylinder	rango
sphere	poi
rectangular prism	poro tapawhā hāngai
pyramid	koeko tapawhā rite

He Whakawhitinga Kōrero:

- Hangaia tētahi mataono rite ki te poikere. *(Make a cube from the play dough.)*
- He aha ngā ingoa pāngarau mō ēnei āhua? *(What are the maths names for these shapes?)*
- Whakamāramatia mai te āhua o te koeko. *(Explain to me the shape of the cone.)*
- E hia ngā kokonga o te ...? *(How many corners has the ... got?)*
- He torotika, he kōpiko rānei ngā tapa? *(Are the edges straight or curved?)*
- He ōrite te āhua me te rahi o ngā mata katoa. *(The shape and size of all the faces are the same.)*
- E rua ngā mata porowhita. *(There are two circular faces.)*