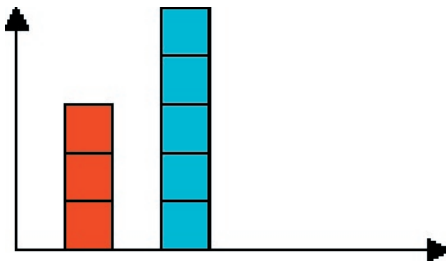# Open Ended Questions

These are questions where there are generally multiple answers and multiple pathways to finding the answers. They can be readily adapted to suit lower, middle and upper levels of achievement. They are also very useful as assessment tools for teachers as they tap into the concepts (or processes) that the teacher is trying to develop.

To develop an open-ended task from a closed, identify the processes being used, and work backwards. If the task requires a single answer, then pose the question that would allow that answer (using the same processes) to be obtained. For example, the closed question 4+6=? Can be opened up by inverting the question. If 10 is the answer, then the open question becomes "What two numbers can be added together to make 10?"

Some examples of this transformation would include:

Closed Task	Open-ended task
What is the length of ,<objects are listed such as book, table, door, etc>	Find 6 things in the room that are 1m long. Find 6 things that are between 1m and 500cm.
What is the area of the shape shown? 	John measured the area of the shape and said it was 65sq cm, Megan measured it and found that it was 60 sq cm. Explain why there is a difference.
How many cm cubes are needed to fill a box that is 6cm long, 4cm high and 2cm deep?	If I had a box that was 48cubic cm, what shape might it be? Use cm blocks to construct the shapes.
What is the angle between the two hands of a clock when the time is 3pm?	What are the times when a clock hands are at 90 degrees?
What is the perimeter of a 1litre milk carton when measuring around the shortest distance?	What objects can you find that have a perimeter of 20cm?
What is the chance of school paying students to come?	List 6 things that would be "impossible".
Construct a bar graph where there are 3 people who drive red cars and 5 people who drive blue cars.	What is the following graph of?
How many 10ᵗʰs are there between 1.2 and 1.9?	List 10 fractions between 1.2 and 1.9
6 + ☐ = 10	☐ + ☐ = 10
What is the mean of 4, 5, 6, 11, 14?	What 5 numbers give a mean of 8?
Calculate 32 divided by 6.	A number is divided by 6 and leaves a remainder of two, what might the number be?