

Covered blocks

Purpose

To strengthen students' ability to count on from a given number to find the total of two groups

Outcomes

NS1.2 Uses a range of mental strategies and informal recording methods for addition and subtraction involving one- and two-digit numbers

MA1-5NA

Framework reference

To move students to EAS Level 3 Counting-on-and-back and PV Level 0

Materials

A collection of small blocks

Set of 6-20 *large number cards* (BLM1)

One die displaying numerals 2-5 and a set of 6-20 *small number cards* (BLM2) for every two students

Teaching point


Once the lesson has been taught, it can be adapted as a *Short, focused and frequent activity*. Display a *large number card* and tell the students that this represents the number of blocks that are under the card. Have the students determine how many blocks there would be altogether if a given number of blocks were added to those represented by the number on the card. Alternatively, given the total number of blocks, have the students determine how many blocks were added to those represented by the number on the card. Ask students to explain how they worked it out.



Suggested *Short, focussed, frequent* activity

	Outline	Questions
Introduction	<p>Have the students sit in a circle and count aloud as you place eight blocks, one-by-one, in a group. Ask the students to determine how many blocks there would be if you placed one more block in the group.</p> <p>Add one block to the group and have the students check the total.</p> <p>Remove one block from the group. Have the students count aloud the remaining blocks to ensure that there are eight blocks in the group. Ask the students to determine how many blocks there would be if you placed four more blocks in the group.</p> <p>Observe the strategies that the students use to find a solution. Ask a student who counted on from eight to explain and</p>	



	Outline	Questions
	<p>demonstrate this strategy to the class.</p> <p>If no student counted on, ask some students to explain their strategies.</p> <p>Ask a student to demonstrate starting from eight and counting on four while keeping track of the number of blocks added.</p> <p> Repeat the activity using different numbers of blocks.</p>	<p><i>How could you work it out without counting from one?</i></p> <p><i>How could you keep track of how many blocks you have added?</i></p>
Concept development	<p>Have the students sit in a circle and count aloud as you place 12 blocks, one-by-one, in a group.</p> <p>Cover the 12 blocks with the <i>large 12 card</i>. Ask the students to work out how many blocks there would be if another three blocks were added to the group.</p> <p>Ask a student who counted on from 12 to explain and demonstrate this strategy to the class.</p> <p>If no student counted on, ask some students to explain their strategies.</p> <p>Ask a student to demonstrate starting from 12 and counting on three while keeping track of the number of blocks added.</p> <p>Repeat the activity using different numbers of blocks.</p> <p>Repeat the activity using number cards only and no blocks.</p>	<p><i>How could you work it out without counting from one?</i></p> <p><i>How could you keep track of how many blocks you have added?</i></p>



	Outline	Questions
Strengthening the concept	<p>Organise the students into pairs. Provide each pair of students with a set of <i>6-20 small number cards</i> and a die.</p> <p>Have the students take it in turns to display a card, roll the die and determine the total by counting on.</p>	

