contents and sample pages

Title	Developing Efficient Numeracy Strategies Stage 1
Author(s)	
ISBN/ISSN	978-0-7313-5572-3
Published by	NSW Department of Education and Training

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POST GPO Box 1729 Adelaide SA 5001
PHONE 08 8363 0288
FAX 08 8362 9288
EMAIL office@aamt.edu.au
INTERNET www.aamt.edu.au

Contents

Where are they now?

Students are able to count perceived items but are unable to visualise the set when the concrete materials are removed.

Where to next?

Students are able to instantly recall number combinations to ten. They have a visual image of a set of items for a given number.

Outcomes

These activities provide opportunities for students to demonstrate progress towards the following outcomes: A student

NES1.2 Combines, separates and compares collections of objects, describes using everyday language and records using informal methods

WMES1.2 Uses objects, actions, imagery, technology and/or trial and error to explore mathematical problems

WMES1.5 Links mathematical ideas and makes connections with, and generalisations about, existing knowledge and understanding in relation to Early Stage 1 content.

LFN reference

Perceptual counting
Spatial patterns
Partitioning and combining
Quinary based strategies

How?

Dot patterns

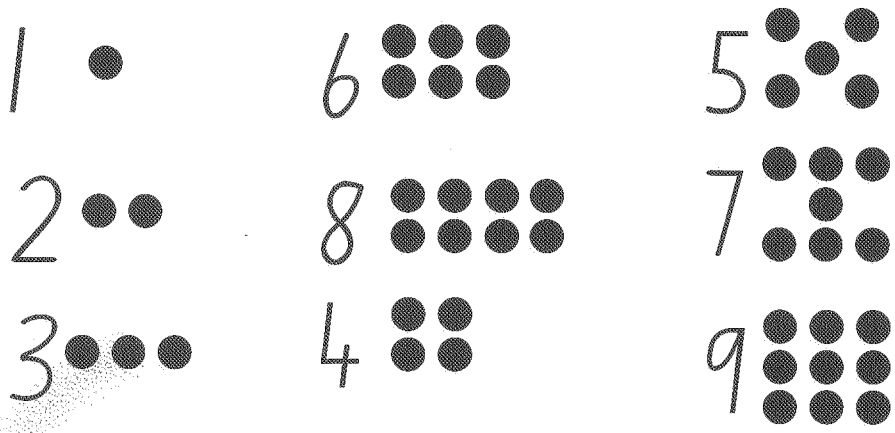
Make a dot pattern with up to five counters on the overhead projector. Use random patterns as well as die patterns. Encourage discussion relating to the patterns and combinations of parts to make a whole. Have the students copy the patterns with their own counters or draw the patterns. Allow other students to make a different pattern with counters on the overhead projector. Repeat this activity, using up to ten counters.

Flash cards

Give flash dot-pattern cards for numbers up to ten to the students. (See BLM on page 141). Provide students with a collection of counters so that they can construct the same pattern as on the dot-pattern card.

Variations

- Show a dot pattern to the students. Cover some dots and ask students to find a dot card to match the hidden dots.
- Flash the dot pattern to the class and then cover some dots. Ask the students how many dots could be seen and how many are hidden if there are ten altogether. This would be more easily done on an overhead projector, using transparent counters.



Why?

Frequent practice with dot patterns, combining groups to form patterns and partitioning collections, leads to visualisation of numbers. This assists the understanding of number relations and the knowledge of basic number facts.