

INSTRUCTIONAL GUIDANCE: COUNTING, QUANTIFYING & NUMERAL RECOGNITION

Vocabulary, representations & stem sentences

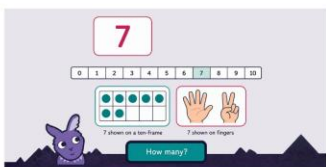
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Relevant mathematical vocabulary

Vocabulary	Definition	Questions / Stem sentences
Number	A word or symbol that tells how many.	What number is this? The number is ____.
Numeral	A written symbol for a number.	This numeral is _____. Numeral _____ matches this quantity.
Quantity / amount	The total number in a set, group, or collection of objects.	How many? What is the amount? There are _____. The amount is _____.
Count / counting	Saying numbers in order to find out how many objects are in a set or group.	I counted _____ objects. I used counting to find out how many.
Subitise	To know how many there are without counting each object.	I knew it was _____ without counting. I saw _____ dots.
Group	A collection of items, or a smaller collection within a larger quantity.	I can see a group of _____. I saw _____ and _____, so it makes _____.
Match	To show that a numeral and a quantity go together.	This quantity matches numeral _____. I counted _____, so I write _____. I can see _____, so I write _____.

Representations, stem sentences and teacher prompts

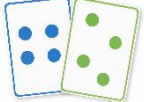
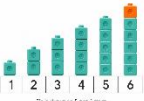
Representation	Purpose	Example teacher prompt	Stem sentence
 Counters or objects	Support accurate counting, one-to-one correspondence and cardinality. Useful when students are learning to count each object once and understand that the last number counted tells how many.	"Count the counters. How many are there altogether?"	"I counted _____ objects. There are _____ altogether."
 Fingers	Help students show quantities quickly and connect numbers to body-based representations. Useful for numbers within 10, especially 5 and some more.	"Show 7 on your fingers. How do you know it is 7?"	"7 is 5 and 2 more."
 Dice or domino patterns	Support recognition of familiar structured quantities and early grouping.	"How many dots? How did you know?"	"I recognised the pattern." / "I saw _____ and _____."



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 Five-frames	Support quantities within 5 and help students recognise small structured quantities without counting every dot.	"How many dots are on the five-frame?"	"I saw ____ dots."
 Ten-frames	Support quantities within 10, especially 5 and some more.	"How many dots? Is the top row full? How many more?"	"____ is 5 and ____ more."
 Rekenreks or bead strings	Support grouping, 5-and-some-more, 10-and-some-more and efficient quantity recognition.	"How many beads? How did you see it?"	"I saw ____ and ____, so it makes ____."
 Dot cards	Support subitising, groupitising and counting-to-check using structured and less structured arrangements.	"How many dots? Did you count, recognise the pattern, or use groups?"	"I knew it without counting." / "I used groups to work it out."
 Cardinality chart	Connects numerals, quantities and one-more relationships. Useful for seeing that each number is one more than the number before it.	"What number does this tower match?"	"____ cubes match the number ____."
 Numeral cards	Support numeral recognition and numeral-quantity matching.	"What numeral is this? Show that many."	"This numeral is ____."
 Number cards	Support matching spoken number names, written numerals and quantities.	"Which number card matches this quantity?"	"This quantity matches numeral ____."