

The 4 Cs

These key elements are the basis for the development of children's early number sense and future success in maths:

- Counting
- Cardinality
- Composition
- Comparison

Counting

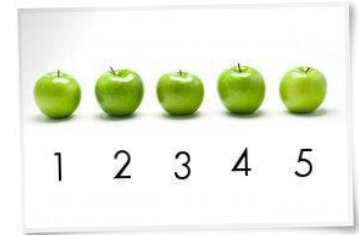
“Knowing numbers” is often used to refer to a child being able to recite the names of numbers in ascending order.

However, rote memorisation does not equate to understanding.

3 rules of counting

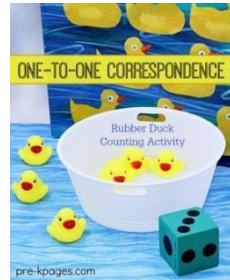
1. Count everything once
2. Say the numbers in the right order
3. The last number you say is how many there are →

the stopping number



One-To-One Correspondence

When counting, the concept of **one-to-one correspondence** is the understanding that each object being counted represents “one more.” It is important for children to be able to count out a number of objects from a larger group set of objects so they understand the **stopping number**.



Cardinality

Cardinality means the quantity or total number of items in a set .

This can be determined by subitising (for very small sets) or counting. While subitising allows children to perceive the cardinality of small sets, counting requires them to understand that the last number in the counting sequence represents the quantity of the set.

‘The 8-ness of eight’



Cardinality

Subitising

The process of immediately knowing how many objects are in a small group without needing to count them.

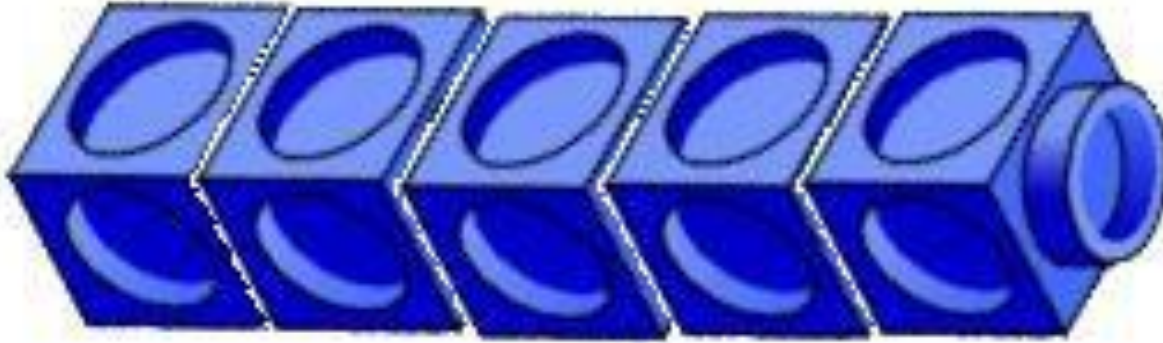
Perceptual Subitising

Being able to 'just see' how many are in a group, without counting.



Composition

Part whole relationships



5 is the whole.

2 is a part and 3 is a part.

Your turn!

Why might it be useful to use cubes of the same colour?

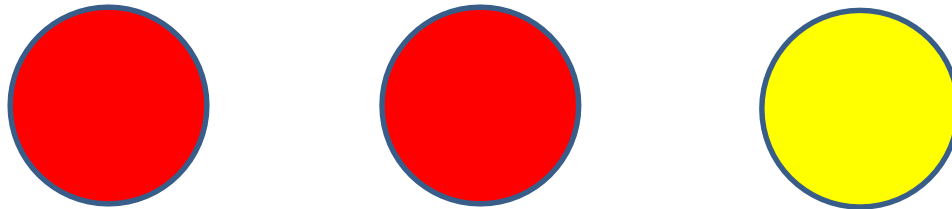


Composition

Part whole relationships

Two-colour counters can also be great for developing understanding of this concept.

They can help young children understand the concept of equality.



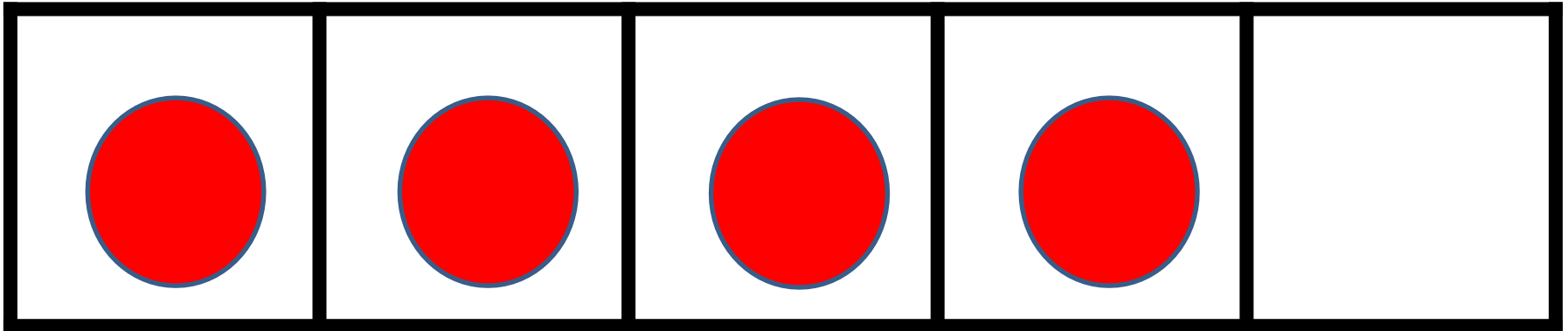
Can you see the one hiding in the three?

Composition

Conceptual Subitising

How many are there?

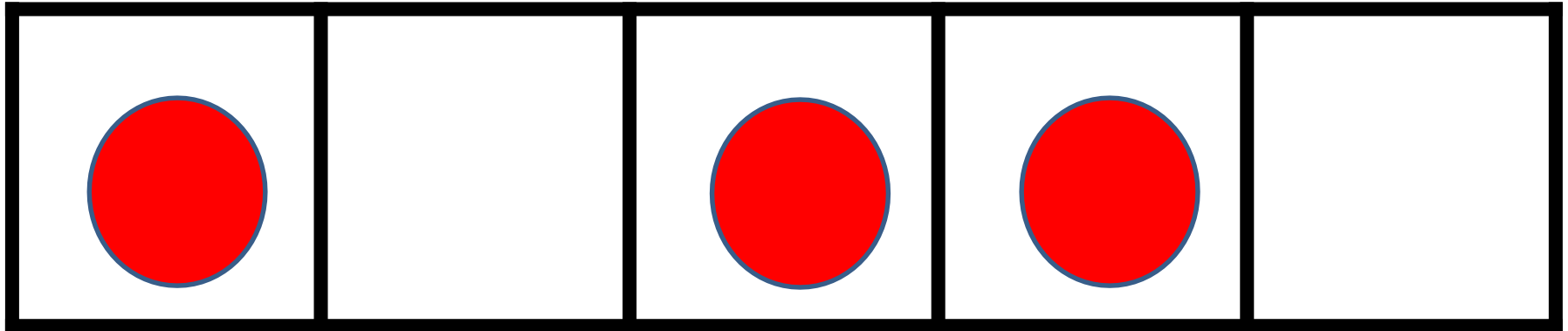
How do you know?



Composition

Conceptual Subitising

How many are there?
How do you know?



Comparison

When we ask children to compare numbers, we are asking them to examine the difference, to decide if one number is greater than, or equal to another number. The magnitude.

Having a good sense of number magnitude is an important indicator of future success in maths.

Which is larger:
3 or 6?

How close can
you get to 10?

How do you know? Convince me!



Comparison Activities and Games

Who has the most? Who has the fewest?

How do you know?

- Sharing sweets/chocolates
- Building with blocks. Can you make a taller tower?

How many bricks do you have?

- Building snakes with play dough and using blocks to measure how long they are.

Which is the longest snake and how do we know?

Use numeral dice, as well as dot dice.



How can you help at home?

- Involve your child in everyday maths; talk about numbers/ maths around you.
- Play lots of games, including ordinary board games.

