

The Counting Principles



2

The stable-order principle. Children understand when counting, the numbers have to be said in a certain order.

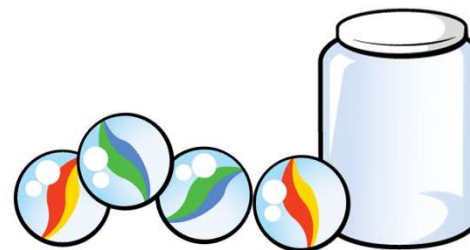
Children need to know all the number names for the amount in the group they are counting. Teachers can therefore encourage children to count aloud to larger numbers without expecting them to count that number of objects immediately.

3

The cardinal principle. Children understand that the number name assigned to the final object in a group is the total number of objects in that group.

In order to grasp this principle, children need to understand the one-one and stable-order principle. From a larger group, children select a given number and count them out. When asked 'how many?', children should be able to recall the final number they said. Children who have not grasped this principle will recount the whole group again.

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4

The abstraction principle. This involves children understanding that anything can be counted including things that cannot be touched including sounds and movements e.g. jumps.

When starting to count, many children rely on touching the objects in order to count accurately. Teachers can encourage abstraction on a daily basis by counting claps or clicks. They can also count imaginary objects in their head to encourage counting on, this involves the children visualising objects.

5

The order-irrelevance principle. This involves children understanding that the order we count a group of objects is irrelevant. There will still be the same number.

Encourage children to count objects, left to right, right to left, top to bottom and bottom to top. Once children have counted a group, move the objects and ask children how many there are, if they count them all again they have not fully grasped this principle.