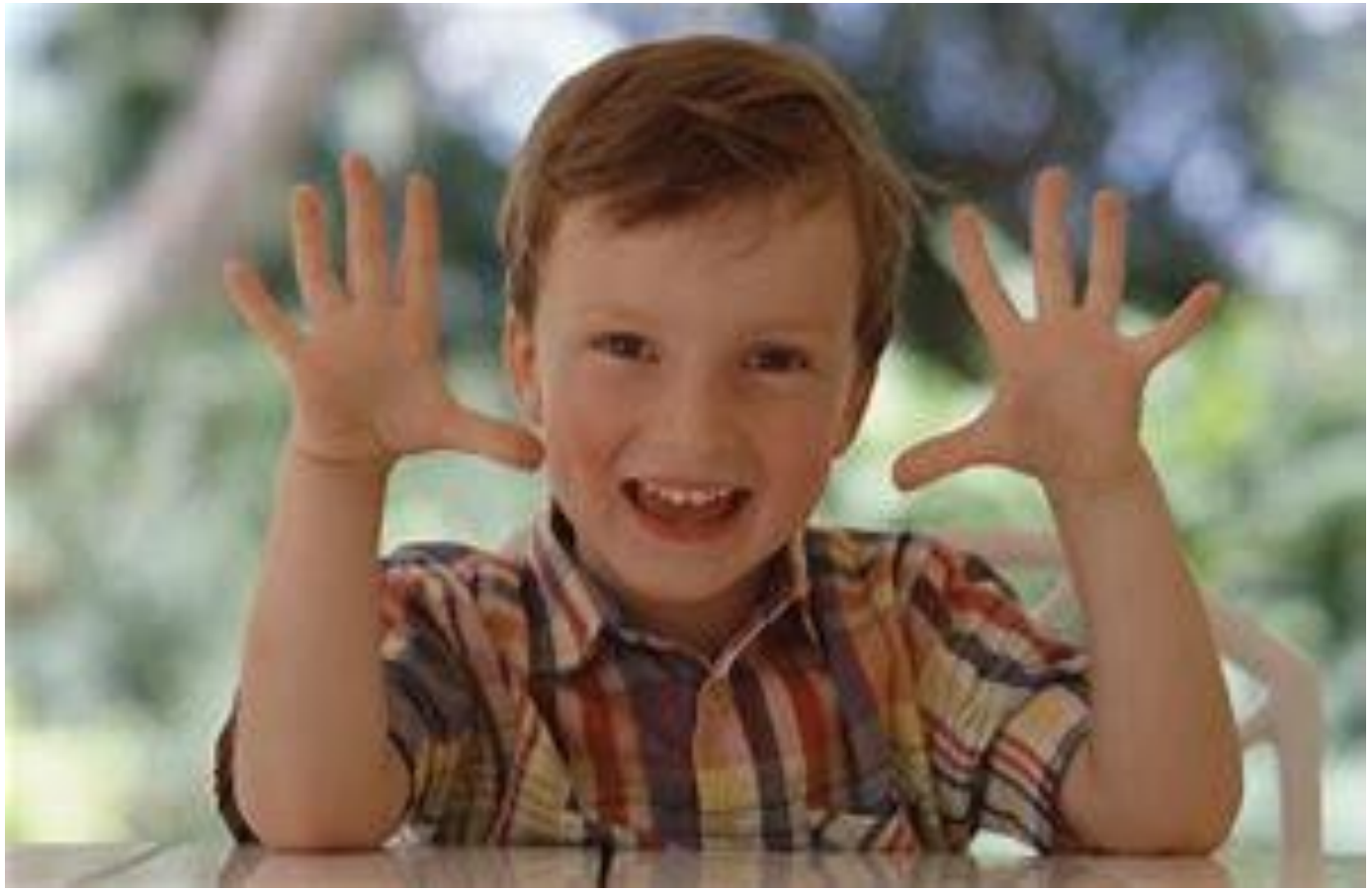
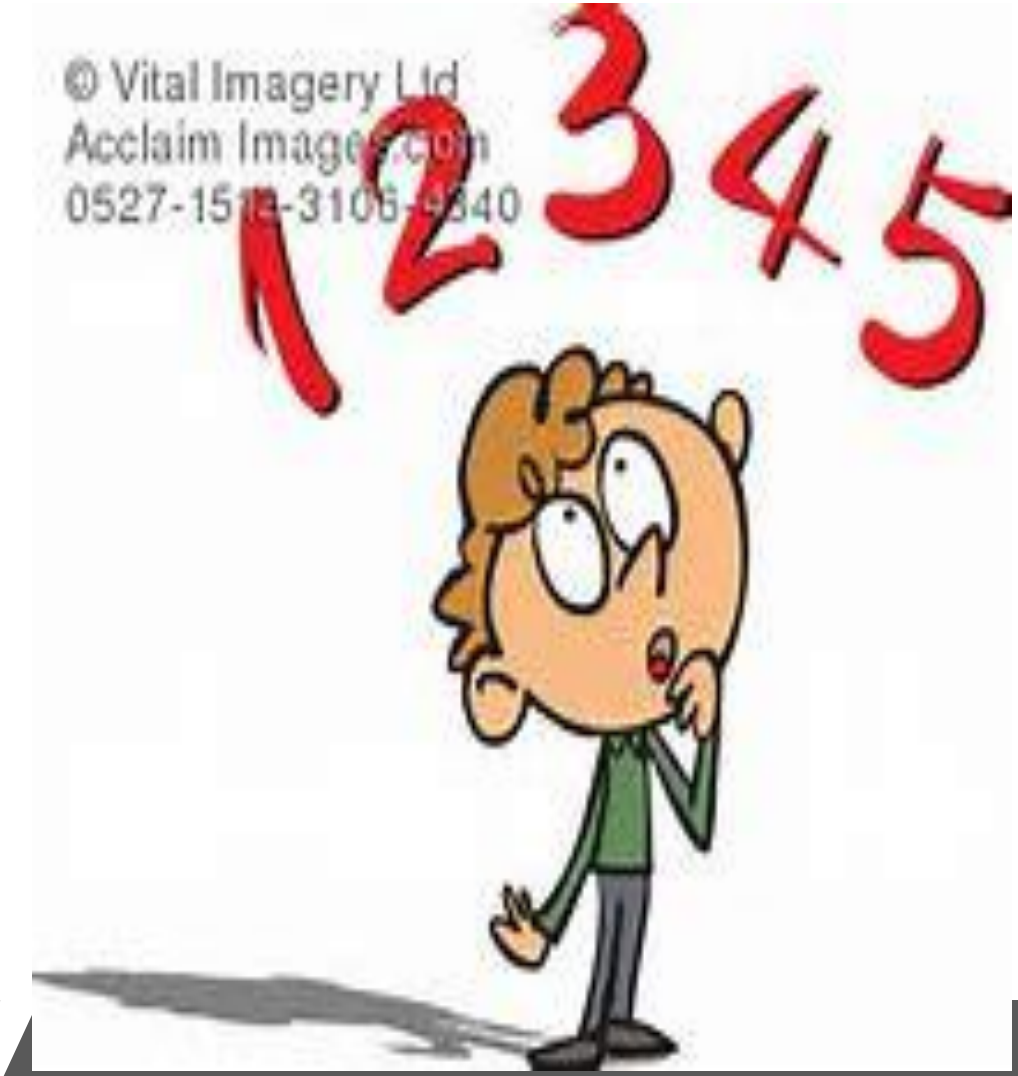
Maths in the Early Years



The importance of counting

- In the past we have thought that because a child can recite the numbers from 1 to ? They can count that number.
- **BUT** there is much more to counting than merely reciting the number words in order.
- There are five **key** principles to counting.
- For a child to become a proficient mathematician these principles need to be understood in depth. These principles need to be ‘mastered’.

The five principles of counting



- ***Ideas……***
- ***Use boxes labelled with numerals that your child has to put the correct number of items into.***
- ***Play skittles. How many have you knocked over? Let's count.***
- ***Count cars/toys/ marbles/biscuits etc.***
- ***Count steps/ jumps/***

Principle 1

One counting word for each object or event

Ideas…

- ***Number sequences….1,2,3,***
- ***Missing numbers… Say one apple, two apples, your turn…and the next one…five apples!***
- ***Spot the missing number.***

Principle 2

Knowing that the list of words used is in a repeatable order

- ***Ideas….***
- ***Count mixtures of objects, large and small.***
- ***Count objects which are the same and then swap one for something else.***
- ***Count objects in different formations …in a line, spread out etc.***

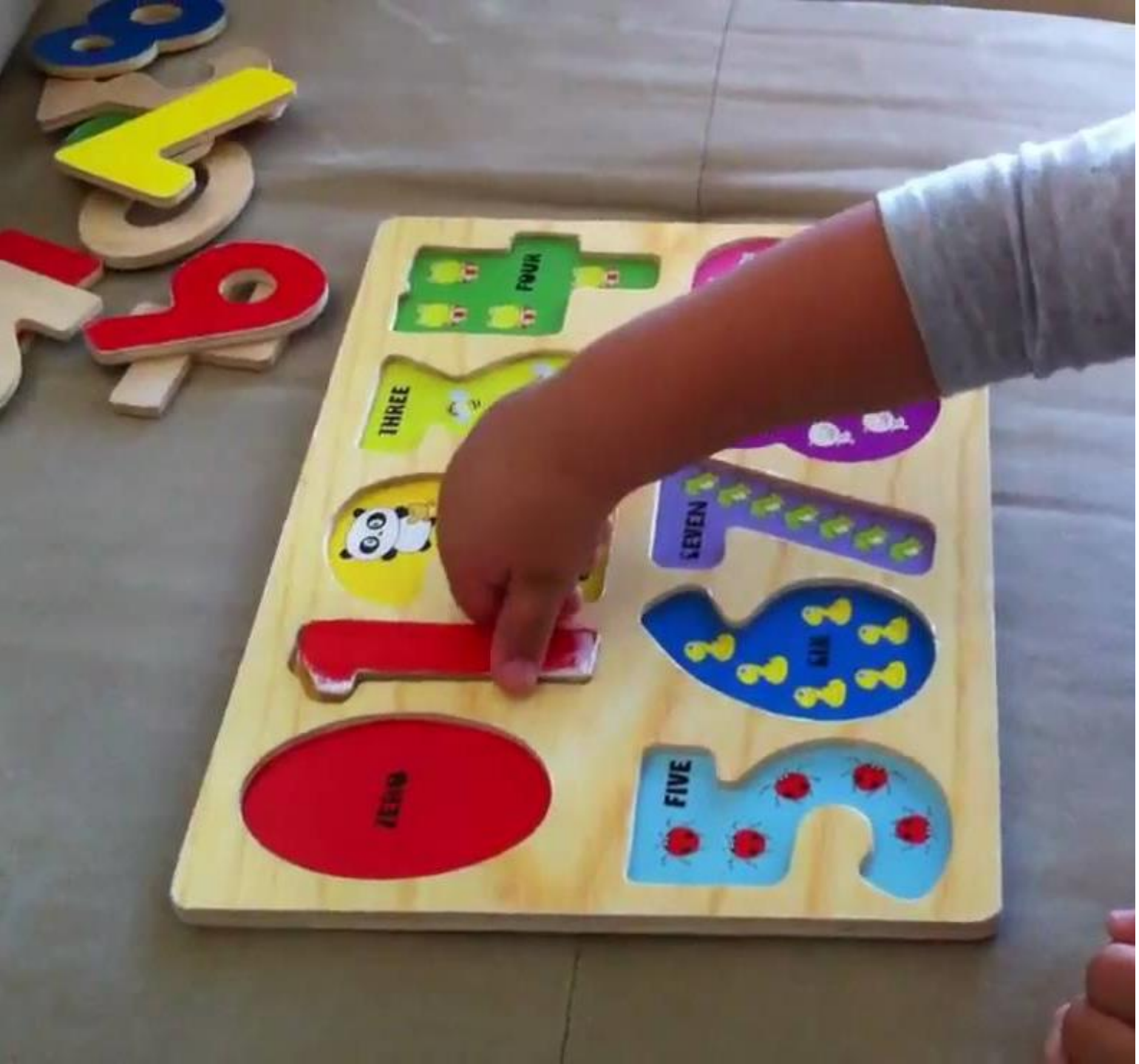
Principle 3

Knowing that the counting rule applies to everything, whether real or not, big or small.

- ***Ideas…***
- ***Count objects moving them around to show that the number of objects doesn't change.***
- ***Count on but count right to left, start in the middle of a group of objects.***

Principle 4

Knowing that it doesn't matter which order we count objects in as long as they are counted only once and given their number name



Principle 5

Recognising numerals… children need to understand the correspondence between numerals and numbers.

Ideas…

Ask child to match number of objects to a numeral.

Put objects in cups/bowls that match number labels.

Chalk numerals in chalk circles and add the correct amount of objects.

- Show me ? in a different way?
- Explain your thinking…
- How many turns / moves will you need to get to the end/ to 10?
- Prove it !
- Draw it /record your ideas.
- Convince me!

Verbal reasoning

From Counting to calculations.

- The most basic strategy children use when moving from counting to calculating is to “**count all**.”
- When asked to find, “How many altogether?”they may first count one set and continue the count into the other set.
- The next step is from **counting all** to **counting on**. Counting on from the number of one set and continuing the count to the total.