COUNTING FORWARDS IS ADDING ONE EACH TIME, COUNTING BACKWARDS IS TAKING AWAY ONE EACH TIME.

INVESTIGATIONS OVERVIEW PAGE
THIS PAGE IS A SUMMARY OF THE INVESTIGATIONS THAT STUDENTS MAY ENGAGE IN TO DEEPEN THEIR RELATIONAL UNDERSTANDING.
INVESTIGATIONS WITH INSTRUCTIONS TO STUDENTS FOLLOW ON SUBSEQUENT PAGES.

- In pairs, each child either starts with zero counters, or selects a numeral card and collects the corresponding number of counters according to their current level of understanding. They repeatedly add 1 counter, explain that they have added 1 counter each time. They record the counters, the counter that they added each time, and the total number of counters each time, explaining that they are counting forwards by ones. They explain that when they are counting forwards by 1s they are adding 1 each time. Children explain that they have one more each time). Reflection: When we count forwards by 1s, how many are we adding each time?

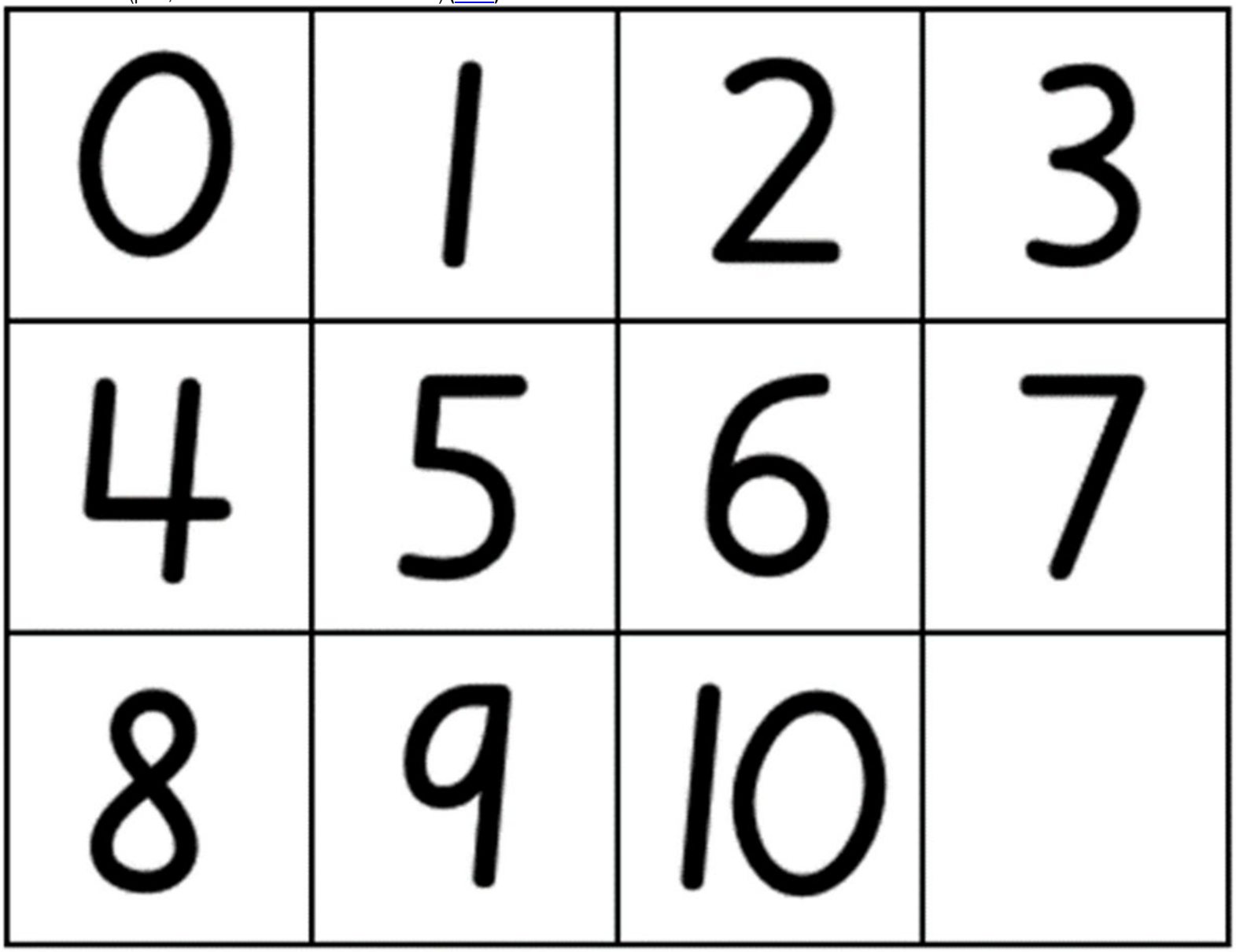
  For example, one child may start adding 1 each time and counting forward from zero, while another child may select the number 4 and starts adding 1 each time and counting from 4.

  NB: Allowing children to select the numbers that they are comfortable with, allows them to independently investigate counting forwards by ones as adding 1 each time. In this way, regardless of their current level of understanding, EVERY child can investigate independently. As the child demonstrates understanding of their current range of numbers, they 'level up' by increasing their range of numbers.

- In pairs, each child selects a numeral card and collects the corresponding number of counters according to their current level of understanding. They repeatedly take away 1 counter, explain that they have taken away 1 counter each time. They record the counters, the counter that they took away each time, and the number of counters left each time, explaining that they are counting backwards by ones. They explain that when they are counting backwards by 1s they are taking away 1 each time. Children explain that they have one less (fewer) each time). Reflection: When we count backwards by 1s, how many are we taking away each time?

  NB: Allowing children to select the numbers that they are comfortable with, allows them to independently investigate counting backwards by ones as taking away 1 each time. In this way, regardless of their current level of understanding, EVERY child can investigate independently. As the child demonstrates understanding of their current range of numbers, they 'level up' by increasing their range of numbers.

Numerals 0 – 10 (print, cut out and distribute to each child) (**back**)



Counting Forwards is Adding One Each Time, Counting Backwards is Taking Away One Each Time

Select a number card and start counting forwards.

Place out the number of counters.

Draw the counters.

Record the number under each counter.

Add 1 counter.

Draw the counter.

Record the number under the counter.

Add 1 counter.

Draw the counter.

Record the number under the counter.

Reflection: When we count forwards by 1s, how many are we adding each time?

Counting Forwards is Adding One Each Time, Counting Backwards is Taking Away One Each Time

Select a number card and start counting backwards.

Place out the number of counters.

Draw the counters.

Record the number under each counter.

Take away 1 counter.

Cross out the counter.

Cross out the number under the counter.

Take away 1 counter.

Cross out the counter.

Cross out the number under the counter.

Reflection: When we count backwards by 1s, how many are we taking away each time?