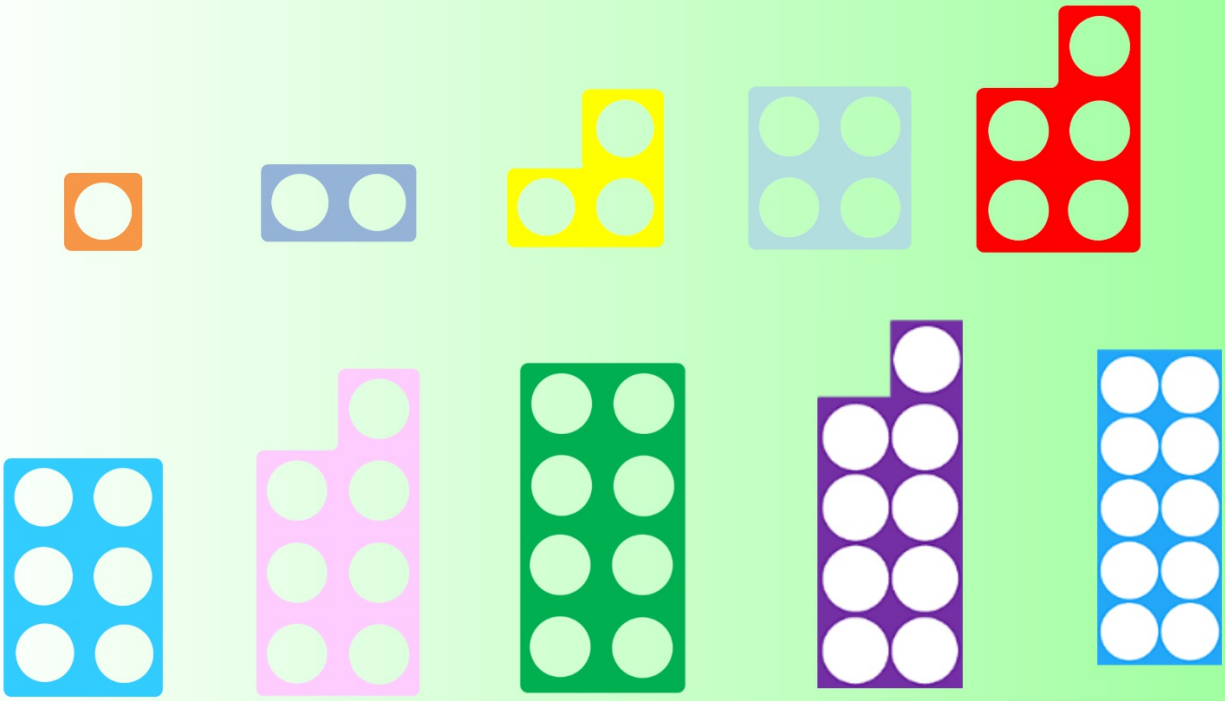
Engage

Look at all the Numicon pieces.
How many number bonds to 5 can we make with them?



**Key Learning:** to know number bonds within 10

**Success Criteria:**

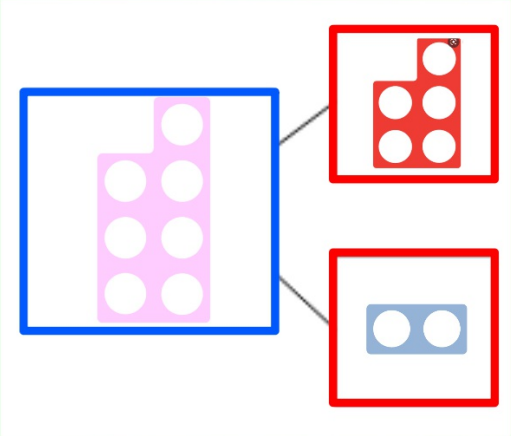
I understand what a number bond is.
I know what a whole and a part is.
I can split a whole into two parts in different ways to find number bonds within 10
I can record number bonds within 10 using a bar model and addition equations.


whole part equal to number bond
commutative systematic sum

## What does number bond mean?

Let's Recap

Number bonds are pairs of numbers that make a whole. They will always make the same whole. They are addition equations.



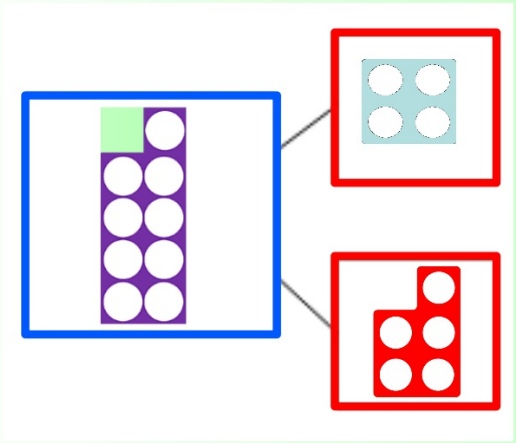
## What number bond is being shown here?

Here we can see the parts of 5 and 2 making the whole of 7.

What does **commutative** mean?

Let's Recap

Commutative means we can swap the parts around to make a new number bond and a new sum (addition equation).



What two sums can we write for this number bond?

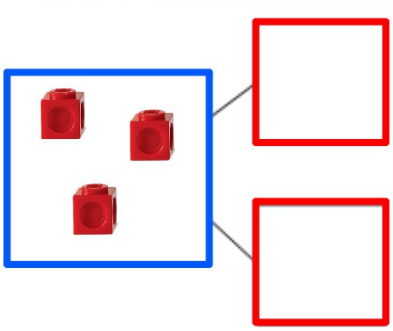
4 + 5 = 9

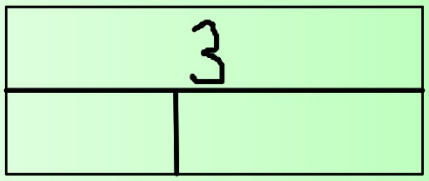
5 + 4 = 9

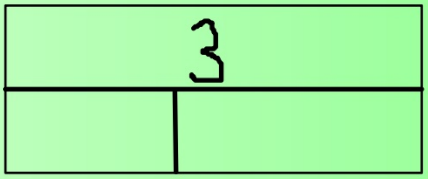
Practise

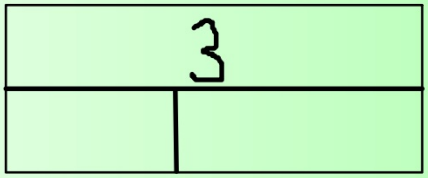
# If 3 is my whole, what could my parts be?

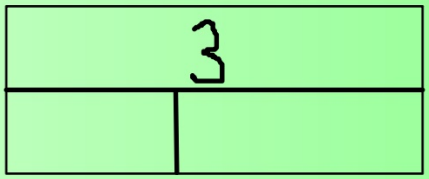
How can I work **systematically**?





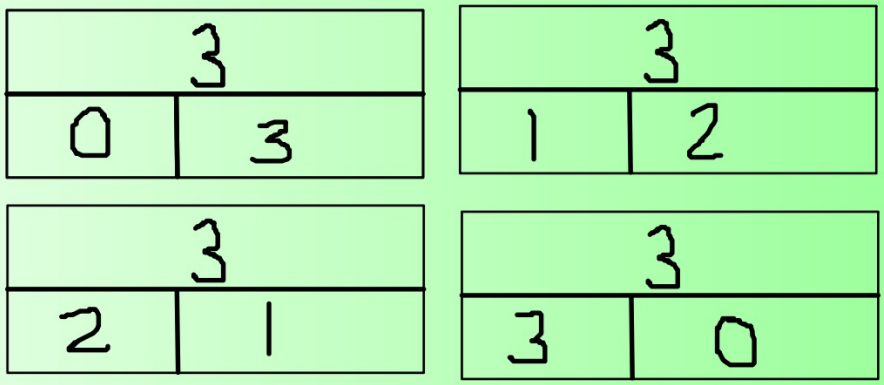

Practise

Now it's your turn...

Partner A: Choose a number from 1-9.
Use the number cards and cubes on your table to find all the number bonds to a number between 1-9.

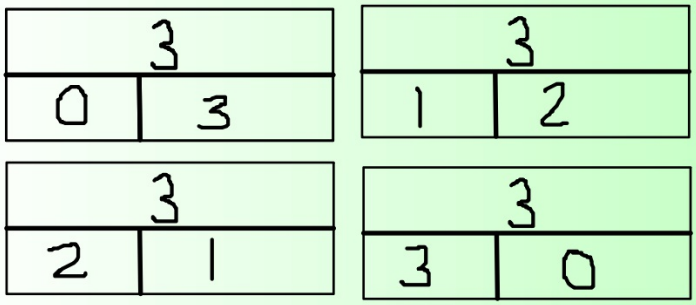
Partner B: Record all the number bonds on your laminated bar models.

SWAP!



Going Deeper

# What sums (addition equations) can I identify from my bar models?




\+ =

\+ =

\+ =

\+ =


Number bonds are **commutative**!

# Now it's your turn

Independent task

**Choose a number card. Write the number (whole).**
**Underneath it, write all the number bonds to that whole.**

2

0 + 2 = 2

1 + 1 = 2

2 + 0 = 2

6

0 + 6 = 6

1 + 5 = 6

2 + 4 = 6

Deepening

## If I know... then I know...

If I know 3 + 2 = 5 and 2 + 3 = 5.

What subtraction equations do I also know?

5 - 3 = 2 and 5 - 2 = 3

# If I know... then I know...

Deepening

Deepening

What subtraction equations can you identify from these number bonds?

1. 4 + 2 = 6
   2 + 4 = 6

2. 6 + 1 = 7
   1 + 6 = 7

3. 3 + 6 = 9
   6 + 3 = 9

Write the subtraction equations into your book:

**Reflection**

Colour in the number bonds to each number in a different colour.
Work systematically to find all the equations.

| + | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 0+0 | 0+1 | 0+2 | 0+3 | 0+4 | 0+5 | 0+6 | 0+7 | 0+8 | 0+9 |
| 1 | 1+0 | 1+1 | 1+2 | 1+3 | 1+4 | 1+5 | 1+6 | 1+7 | 1+8 | |
| 2 | 2+0 | 2+1 | 2+2 | 2+3 | 2+4 | 2+5 | 2+6 | 2+7 | | |
| 3 | 3+0 | 3+1 | 3+2 | 3+3 | 3+4 | 3+5 | 3+6 | | | |
| 4 | 4+0 | 4+1 | 4+2 | 4+3 | 4+4 | 4+5 | | | | |
| 5 | 5+0 | 5+1 | 5+2 | 5+3 | 5+4 | | | | | |
| 6 | 6+0 | 6+1 | 6+2 | 6+3 | | | | | | |
| 7 | 7+0 | 7+1 | 7+2 | | | | | | | |
| 8 | 8+0 | 8+1 | | | | | | | | |
| 9 | 9+0 | | | | | | | | | |