

Diving into Mastery - Diving

Adult Guidance with Question Prompts

Children work systematically, using a bar model and calculations, to find all the number bonds. Children will need yellow and green colouring pencils and counters of two different colours.

What two numbers can be added together to make six?

Which bar model represents the whole six?

Can you see a pattern in the numbers?

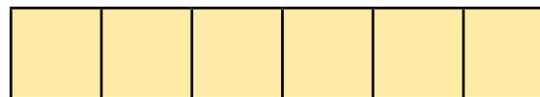
Can you see a pattern in the bar models?

What is happening to the yellow and green parts each time?

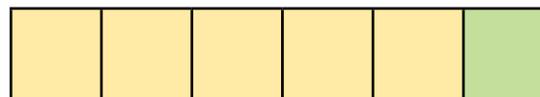
Systematic Number Bonds



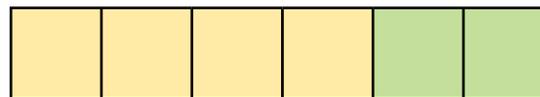
Colour the bar models and complete the calculations following the pattern.



$$6 = 6 + 0$$



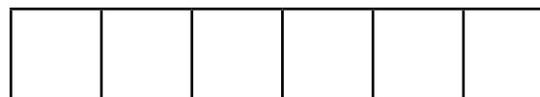
$$6 = 5 + 1$$



$$6 = _ + _$$



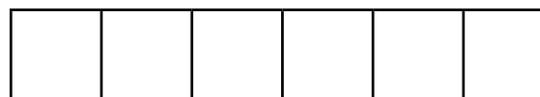
$$6 = _ + _$$



$$6 = _ + _$$



$$6 = _ + _$$



$$6 = _ + _$$

Can you use counters of two different colours to show all the number bonds to 8?

Diving into Mastery - Deeper

Adult Guidance with Question Prompts

Children look at the number bond lists and identify the mistakes. Then, they can correct and complete the lists.

Look at the number bonds to seven.

How will you work out which number bonds are incorrect?

How will you find which ones are missing?

Look at the number bonds to eight.

How will you work out which number bonds are incorrect?

How will you find which ones are missing?

Systematic Number Bonds



Here are the number bonds to 7 and 8.

There are two mistakes in each set.

Find them and draw a circle around them.

Number Bonds to 7

$$7 + 0$$

$$5 + 2$$

$$4 + 5$$

$$3 + 3$$

$$1 + 6$$

Number Bonds to 8

$$7 + 1$$

$$5 + 2$$

$$4 + 4$$

$$3 + 5$$

$$2 + 6$$

$$1 + 9$$

Which number bonds have been missed out?

Can you complete the sets by writing them in order?

Explain how you knew what was missing.

Diving into Mastery - Deepest

Adult Guidance with Question Prompts

Children write the number bonds to 9 systematically and represent them using ten-frames.

How many ladybirds and butterflies could there be?

Could we write $0 + 9 = 9$?

Why not?

Can you represent a calculation using the ten-frame?

Systematic Number Bonds



In the garden, there were 9 insects.
Some were ladybirds and some were butterflies.



How many of each could there be?

List all the possibilities as calculations.

Can you work using a pattern?

Use a ten-frame to show all the possible combinations.

Can you think of your own garden-themed problem?