Numbers to 100 – 5

Warm up: Using your place value skills, try adding 10s and 1s together.

20 + 4 is the same as 24,   32 + 20 is equal to 52

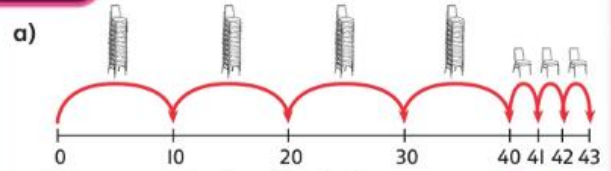## Partitioning numbers ②

Discover

1 a) There are 10 chairs in each stack.

How many chairs are there in total?

b) Show the number of chairs in total on a place value grid.

Share

a)

There are 4 stacks of 10 chairs.

There are 3 more chairs.

There are 43 chairs in total.

I didn't have to count the chairs in each stack. I know there are 10 chairs in each stack. I counted in tens first and then in ones.
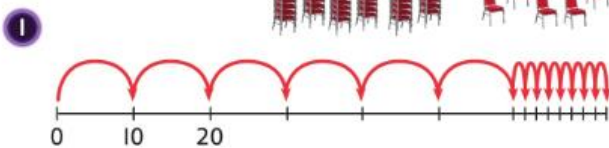
b)

Tens	Ones
4	3

Tens	Ones
4	3

4 tens and 3 ones = 43

43 = 40 + 3

Think together

1

How many chairs are there in total?

There are ▢ stacks of 10 chairs.

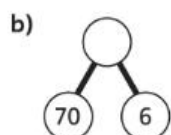There are ▢ extra chairs.

There are ▢ chairs in total.

Is there a better way to add the 1s?

2 What numbers are shown each time?

a)

Tens	Ones

▢ tens and ▢ ones = ▢

▢ = 50 + 2

b)

70   6

c)

3 Put all the ▭ ▭ on the place value grids to make two numbers.

Tens	Ones

Tens	Ones

What numbers did you make?

One of my numbers is 26. I wonder what the other number will be?

CHALLENGE

Discover

ASK

- Question **1** a): *How many chairs are in each stack? How could you count those chairs efficiently?*
- Question **1** b): *How many different ways can you think of to represent the number of chairs?*
- Question **1** b): *Could you represent this number using a place value grid?*

IN FOCUS Use question **1** to recap what children learned in the previous lesson. Children should be able to demonstrate their ability to represent the number in different ways, particularly within a place value grid.

ANSWERS

Question **1** a): There are 43 chairs in total.

Question **1** b):

Tens	Ones
4	3

Think together

WAYS OF WORKING Whole class teacher led (I do, We do, You do)

ASK

- Question **1** : *How will you count the piles of 10 chairs efficiently?*
- Question **1** : *What do you need to do to find out how many extra chairs there are?*
- Question **2** : *Could you represent each number in a place value grid? In a part-whole model?*

IN FOCUS Question **1** links back to what children have learned in previous lessons, and also helps secure their understanding that 6 tens are equal to 60 (necessary for understanding the place value grid).

Question **2** begins to link children's understanding of partitioning, and the place value grid, to the part-whole model.

STRENGTHEN For question **2** , it would be beneficial to have all the resources pictured available for children as concrete manipulatives. Ask children to create each number with resources (cubes, place value grid, part-whole model, bead string) and discuss what is the same and what is different about each representation. This will help strengthen children's understanding of the links between the place value grid and the part-whole model.

Share

WAYS OF WORKING Whole class teacher led

ASK

- *How has Flo represented the chairs?*
- Question **1** a): *How does the number line represent the number?*
- Question **1** b): *Did your place value grid look the same as Flo's? Explain how they are the same or different.*

IN FOCUS Use question **1** b) to remind children what they have already learned about the place value grid. Recap why the tens are listed as '4' and not '40', and discuss how the addition number sentence links to the place value grid.

DEEPEN To further develop children's problem solving skills, ask them how many solutions they think there are to question **3** . When making a pair of numbers, what is the smallest number they can make? What is the biggest?

ASSESSMENT CHECKPOINT Assess children's ability to count in 10s and 1s by asking them to explain to you how the number line in question **1** represents the number of chairs. Can they relate this to the place value grid?

Use questions **2** and **3** to determine whether children have a fluent and confident understanding of how to partition 2-digit numbers. Can they use place value grids effectively? Can they explain how the representation links to the part-whole model?

ANSWERS

Question **1** : There are 6 stacks of 10 chairs.

There are 8 extra chairs.

There are 68 chairs in total.

Question **2** a): 52

5 tens and 2 ones = 52

$52 = 50 + 2$

Question **2** b): 76

Question **2** c): 34

Question **3** : Any pair of numbers made from 86 Base 10 cubes. Astrid made 26 and 60.