PART 3

UNIT 6

SUBTRACTION BY COUNTING ON FROM THE SMALLER NUMBER

UNIT 6

Unit 6
• SESSION 1 •

TOTAL TIME
30 MINUTES

OBJECTIVES	VOCABULARY	RESOURCES	HOMEWORK
• Find a small difference by counting on from the smaller to the larger number • Measure and compare lengths using standard units	measure, centimetres (cm), double, near double, multiple, difference, taller, tallest, shorter, shortest	interlocking cubes; 0–99 grid; rulers	Make up three subtraction sentences, all of which have the answer 3. Make up another three for which the answer is 5.

STARTER
5 MINUTES

Revise addition facts for 10. Revise counting on and back in tens to and from 100. Revise subtraction facts for 10 such as 10 − 8 = 2 and 10 − 2 = 8, and for multiples of 10 to 100, such as 100 − 80 = 20 and 100 − 20 = 80.

KEY QUESTIONS

- **What do multiples of 10 always end in?**
- **How can you check that your number facts for 100 are correct?**

MAIN ACTIVITY
20 MINUTES

Using linked cubes, children build towers in different colours. Make sure that this is done quickly with a manageable number of cubes.

How tall is the red, blue, orange tower?
Which is the tallest?
Which is the shortest?
How much taller is the tallest than the shortest? (Measure the heights in centimetres.)

In pairs, children quickly build two new towers, not the same height but close to each other.

How tall is the taller tower in centimetres?
How tall is the other tower in centimetres?
What is the difference between the two heights?
How do you know?

Write the matching number sentence on the board, for example, 21 − 18 = 3. Repeat this with the children building two new towers.

What is the difference between these two heights?

Demonstrate the difference by counting on using the number line or the number grid. Write the matching number sentence on the board, for example, 23 − 17 = 6.

Repeat this process with different numbers which are less than 8 apart.

In pairs ask the children to write as many subtraction sentences as they can where the answer is 4. Explain that they will do a similar task for homework.

Explain activity sheet 6.1, which the children should complete before the next session.

KEY QUESTIONS

- **How can we find the difference between two numbers (demonstrate counting on from the smaller to the larger number)?**
- **What answer do you get if you count back from the larger to the smaller number (it should be the same)?**
- **How do we write these calculations (as subtraction sentences)?**

PLENARY

5 MINUTES

How did you find the difference between the heights of the towers? How did you check to see if you had the right answer?

UNIT 6

Unit 6
SESSION 2

TOTAL TIME 30 MINUTES

OBJECTIVE
- Find a small difference by counting on from the smaller to the larger number

VOCABULARY
estimate, count on, difference, more, multiple of ten, zero

RESOURCES
demonstration 1–50 number line; large counter

STARTER 5 MINUTES

Revise ordering and comparing numbers up to 100. Give the group three numbers. *Which is the biggest? Which is the smallest?* Repeat twice with other numbers.

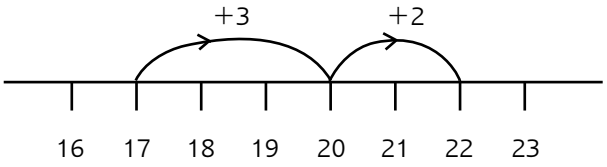
Revise multiples of 10 and counting in tens. Revise subtraction facts for 10, such as 10 − 7 = 3 and 10 − 3 = 7, and for multiples of ten to 100, such as 100 − 70 = 30 and 100 − 30 = 70.

KEY QUESTIONS

- **What do you add to 3 to make 10?**
- **What do you add to 30 to make 100?**

MAIN ACTIVITY 20 MINUTES

Write 22 − 17 on the board. Point to the sum and say it as 'What is 22 minus 17? What is the difference between 17 and 22?' Choose a child to put a counter on the number line at 17. Point to the counter and say 'This has to move from 17 to 22, but, for its first hop, it must land on a number ending in zero. How many to the next number ending in zero?' Demonstrate that this is a hop of three, up to 20. Now move the counter two more to 22. Point at the two hops. Say 'Three and two make five'.



Repeat this process for 33 − 26 and 24 − 17.

Explain activity sheet 6.2, which the children should complete before the next session.

KEY QUESTIONS

- **What others ways can we say 54 take away 47?**
- **If you count on to do this calculation, where would your first hop take you?**

PLENARY

5 MINUTES

Draw two paint brushes on the board. Label the lengths 27 cm and 34 cm.

What is the difference in the lengths of these two brushes?

Work this out by counting on. Tell the children to imagine the number line in their minds. Ask them to explain how to set about this calculation. Encourage pupils to visualise a few more calculations.

UNIT 6

Name .....

Date .....

Dear Parents/Carers,

In our mathematics lessons, we have been finding the difference between numbers by counting up from the smaller number to the larger. It would be very helpful if you could help your child with the examples below.

Thank you for your help.

Your child's teacher

Complete these number sentences.
Use different numbers for each example.

51 − 48 = 3	□ − □ = 5
□ − □ = 3	□ − □ = 5
□ − □ = 3	□ − □ = 5

Try making more number sentences with answers 4, 2 and 6. Write them on the back of this sheet. How many different ones can you make for each answer?

UNIT 6

Name .....

Date .....

Activity sheet 6.1

1. Measure the lengths of each of these pencils as accurately as possible.

A  ..... cm

B  ..... cm

C  ..... cm

D  ..... cm

E  ..... cm

Which pencil is the shortest? .....

Which pencil is the longest? .....

The difference between the longest and the shortest is ..... cm.

Pencil A is ..... cm shorter than pencil C.

2. I have a pencil that is as long as the longest and shortest joined together. It is ..... cm long.

3. The length of the two shortest pencils added together is ..... cm.

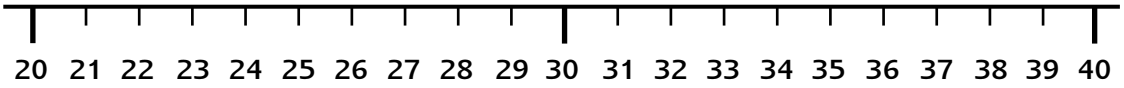
4. Write two subtraction sentences with the answer 10.

UNIT 6

Name .....

Date .....

Activity sheet 6.2



1. What is the difference between 26 and 32?

   32 − 26 = ☐

2. What is the difference between 23 and 36?

   36 − 23 = ☐

3. What is the difference between 29 and 38?

   38 − 29 = ☐

4. What is the difference between 24 and 33?

   33 − 24 = ☐

5.

42 − 38 = ☐	53 − 47 = ☐
61 − 57 = ☐	24 − 13 = ☐
59 − 48 = ☐	29 − 12 = ☐
40 − 31 = ☐	45 − 39 = ☐