# Written subtraction (3)

# National Curriculum attainment targets

- Subtract whole numbers with more than four digits, including using the formal written methods (columnar subtraction)
- Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy

#### Previous related lessons

Unit 5, Week 1, Lesson 2; Unit 5, Week 1, Lesson 3 Prerequisites for learning

#### Pupils need to:

- use the formal written method with four-digit numbers **Vocabulary**
- column subtraction, place value, rounding

# Lesson objectives

- Subtract whole numbers with five and six digits using the formal written method (decomposition)
- Use rounding to check answers to calculations

#### Future related lesson

## Unit 11, Week 1, Lesson 2 Success criteria

- Pupils can:
- write out the calculation correctly
- subtract each column
- change the columns when needed



Collins

Connect

Year 5, Unit 9,

Week 2

## **Getting Started**

- Choose an activity from Number Addition and Subtraction.
- Choose a game or activity from *Fluency in Number Facts:* Y5/Y6 Addition and subtraction.

#### Teach

#### Resources

mini whiteboard, pen and eraser (per child)

- Display: Slide 1.
- Say: Work out the calculation using the formal written method.
- Watch the children's working out and notice any steps that they are unsure of.
- Work through the calculation as a class, asking different pairs to explain what needs to be done next and why. Focus on any aspects you have noticed the class found tricky.
- Say: Now let's check our answers by rounding the numbers in the calculation.
- Ask: What is 75443 rounded to the nearest multiple of 100? Write 75400 on the board.
- Ask: What is 27 617 rounded to the nearest multiple of 100? Write 27 600 on the board.
- Say: Work out 75400 subtract 27600 and use the answer to check your calculation.
- Display: Slide 2. Say: Remember to work neatly so you can see when you need to change any of the columns.
- Say: Work out this calculation together, and then use rounding to check your answer.
- Watch the children's working out and notice any steps that children are unsure of.
- Work through the calculation with the class, asking different children to explain what needs to be done next and why.
- Display: Slide 3.
- Say: Work out this calculation, and then use rounding to check. You need to work very carefully or your working out will not be clear.
- Ask a child to feedback their working out, the rest of the class can check the working out is correct.
- Ask another child to talk through their rounding calculation.

digit 7 must be referred to as 700. Read each calculation before working it out to ensure that children are aware of the whole number not just

number. So in 15728, the

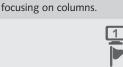
Throughout the

the digits are referred to by their place value

not just as a one-digit

lesson, ensure that

A





- Write on the board: 463 392 82 715.

- Ask: How can you use the formal written method to subtract this five-digit number from the six-digit number?
- Ask a pair to share their working. Check the rest of the class agree.
- Establish that digits with the same place value must be written out underneath each other.
- Write on the board: 528377 9198.
- Say: Work out this subtraction calculation.

## Individualised Learning

Refer to Activities 2 and 3 from the Learning activities on pages 362 to 363.

Pupil Book 5C: – Page 16: Written subtraction (3)

Progress Guide 5: – Support, Year 5, Unit 9, Week 2, Lesson 3: More written subtraction

## Plenary

#### Resources

mini whiteboard, pen and eraser (per pair)

- Write 400006 299999 on the board.
- Ask: What do you think is the best way to work out this calculation?
- Ask some pairs to share their ideas. Establish that as both numbers can be easily rounded, a mental method would be very efficient for this calculation.
- Say: Work out the answer and be ready to explain how you did it.
- Ask a pair to share their strategy, then ask which other pairs used the same one.
- If any pairs have used a different method, ask them to explain it.
- Say: Write down a similar calculation that would be better subtracted mentally than using the written method.
- Ask some pairs to share their calculation with the class. The rest of the class should work it out mentally.

Homework Guide 5

Year 5, Unit 9, Week 2, Lesson 3: Written addition and subtraction

#### **Overcoming Barriers**

• If children are making mistakes with the formal written method, it indicates they do not have a secure understanding of why the method works. Children who do understand the method can apply it to any numbers. Stay with three-digit numbers and show the subtracting of each column separately alongside the formal written method so children can clearly see the place value of each answer, e.g. 500 – 200.