Adding and subtracting lengths

National Curriculum attainment target

• Measure, compare, add and subtract lengths (m/cm/mm)

Lesson objective

• Add and subtract lengths using mixed units

Prerequisites for learning

Pupils need to:

• know the relationships between metres, centimetres and millimetres

• add and subtract two-digit and three-digit numbers

Vocabulary

metre (m), centimetre (cm), millimetre (mm), length, height

Success criteria

Pupils can:

• apply knowledge of place value to add and subtract length in mixed units

Getting Started

• Choose an activity from Measurement (length and perimeter).

Collins
Connect
Year 3, Unit 6, Week 3

Teach

• Recall that 10 mm = 1 cm and 100 cm = 1 m. Ask: **How many centimetres are equal to $\frac{1}{2}$ m/$\frac{1}{4}$ m?**

• Display: Slide 1 showing a bendy straw.

• Say: **This bendy straw is 15 cm long. It is bent to make two pieces. One piece is 8 cm long.**

• Ask: **How long is the other piece?** (7 cm) Elicit two methods: 15 cm – 8 cm and 8 cm + □ = 15 cm.

• Ask: **If one piece is 3 cm 5 mm long, how long is the second piece?** (11 cm 5 mm) **How did you work it out? Who had a different method?**

• Display: Slide 2 showing the three paintbrushes.

• Ask: **How much longer is the large brush than the medium brush?** ($5\frac{1}{2}$ cm) **How much longer is the large brush than the small brush?** (9 cm)

• Invite children to come to the board to show how they found the answer.

• Display: Slide 3.

• Ask pairs to work together to solve the problem and to share their answers with the class.

• Take feedback from several children. (A = 55 cm, C = 95 cm) Ask: **How many centimetres short of 1 m is suitcase C?** (5 cm)

Individualised Learning

Refer to Activity 4 from the Learning activities on page 263.

Pupil Book 3B – Page 27: Adding and subtracting lengths

Plenary

Resources
Pupil Book page (per child)

[4]
- Display: Slide 4.
- Ask: **What is the important information in this question? What is the first calculation you will do to answer the question? What will you do next?**
- Choose children to explain, with sketches and jottings where possible, how they found the answers to Question 1 of Challenges 1 and 2.

Overcoming Barriers

- Check that children use the correct calculation and label answers with the correct unit of length.