Solving problems which involve different measures of length

National Curriculum attainment target

- Estimate, compare and calculate different measures

Lesson objective

- Calculate different measures of length using decimals to one place

Previous related lessons

Unit 6, Week 3, Lesson 1; Unit 6, Week 3, Lesson 2; Unit 6, Week 3, Lesson 3

Prerequisites for learning

Pupils need to:

- be able to convert between kilometres and metres, and between metres and centimetres
- use decimal notation to tenths to record length in kilometres

Vocabulary

distance, height, kilometre (km), metre (m), centimetre (cm)

Future related lesson

None

Success criteria

Pupils can:

- choose and carry out appropriate calculations to solve problems

Getting Started

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

Collins Connect
Year 4, Unit 6, Week 3

Teach

- Ask: **Who lives about one kilometre from our school? Who can think of a place that is about one kilometre from our school?**
- Display: Slide 1.
- Say: **Look for the school on this map.** Ask: **How far is the school from the ferry landing stage?** ($1\frac{1}{2}$ km) **How many metres is that?** (1500 m) **Who can give me that distance in kilometres using decimals?** (1·5 km)
- **What is the distance from the school to the village shop in metres?** (600 m) **In kilometres using a decimal point?** (0·6 km)
- Ask: **How far is the farm from the lighthouse?** (6 km 400 m)
- Say: **Tell your partner how can we write 6 km 400 m in kilometres and then in metres.** (6·4 km, 6400 m)
- Say: **Mr McKinnon is a lighthouse keeper. How long is the road from the lighthouse to the village shop?** (8 km 900 m)
- Ask: **Who can give me the distance from the lighthouse to the village shop in kilometres?** (8·9 km) **Rounded to the nearest kilometre?** (9 km)

- Say: **Tell your partner how many kilometres the village shop is from the farm.** (2·8 km) Take feedback and ask children to explain their mental methods.
- Say: **The village shop is also the Post Office. Every weekday, Mrs Scott cycles to the ferry landing stage to collect the mail and takes it back to her shop.**
- Ask: **How many kilometres does she cycle each day?** (1·8 km)
- Say: **Tell your partner the distance she cycles to collect the mail in two days.** (3·6 km)
- Ask: **How many kilometres does she cycle to and from the ferry landing stage in five days?** (9 km) Ask children to explain their mental methods for five days.

Individualised Learning

Refer to Activity 4 from the Learning activities on page 259.

Pupil Book 4B: – Page 27: On the map measures

Progress Guide 4: – Extension: Year 4, Unit 6, Week 3, Lesson 4: Patterns and lengths

Resources, ruler (per child)

Plenary

- Display: Slide 2.
- Say: **The school is at zero.** Ask: **Who can come forward and point to the position on the number line for the farm which is 2200 m from the school?** (2·2 km)
- Ask: **Who can show us the position of the village shop at 600 m from the school?** (0·6 km) **Can you explain your reasoning to the class?**
- Ask: **How much further from the school is the farm than the shop? How did you find the answer?** (2·2 km – 0·6 km = 1·6 km)
- Say: **Tell your partner how you can use the number line to check your subtraction.** Take feedback and elicit the use of inverse operations to check answers to a calculation.
- Repeat, as above, for the position of the ferry landing stage.

Homework Guide 4

Year 4, Unit 6, Week 3, Lesson 4: Measurement round-up

Resources, ruler (per child)