M15

THE LONG AND SHORT OF IT

5–10 minutes

To practise solving a practical problem using a conventional measure
To reinforce the use of size language, e.g. long/short, longer/shorter
To foster experimentation and flexibility – encourage children to find different solutions to the same problem
To develop the use of a measure to compare length independently

- A sheet with a lorry on (one for each child)

- A sheet with 6 logs on (one for each child)

- A thin strip of coloured paper about 30cm long (one per child)
- A pencil and a pair of scissors (one per child)

Note: Two of the logs shown are exactly as long as the body of the lorry, two are shorter and two are longer – so four will fit and two won't – but don't tell your child any of this.

Start by saying: *A man called Pablo works for a furniture factory as a driver. He has driven to the timber yard, where logs are sold, to buy and pick up as many logs as he can fit safely into the lorry. Safely means that they can't hang over the end. He must be able to shut the back of the lorry up.* Show your child the sheet with the lorry on and the sheet with the logs on. Say: *This is his lorry and these are the logs available in the yard.*

Then say: *It's a lot of work to lift each log into the truck without knowing if it will fit or not. So he wants to know first, before each log is lifted, whether it will fit in. Can you help Pablo find out which logs he can load into the body of the lorry and which he cannot? You can put a tick on those logs that he can load and leave the other logs unmarked.* Have the pencil, strip of paper and scissors to hand in case they ask for them.

Observe how your child makes their decision. Do they compare by sight (visual inspection)? Do they try to compare logs and the body of the truck by placing them in physical proximity to one another (superimposition)? Or do they measure either the logs or the body by making a measure and using it to determine which logs will fit (use of a conventional measure)?

If they use the visual inspection approach, or superimposition, ask them how they could be absolutely certain of which ones will really fit. Encourage them to think what they could use as a measure. Remind them of previous sessions if necessary. If still required, then ask: *Do you think a strip of paper and some scissors would be helpful? What could you do with them?*

Allow your child to work as independently as possible to create a paper measure the same length as the body of the truck, and then test it against each log by lining it up appropriately, and then ticking those logs that will fit.

Congratulate them on helping Pablo solve his problem so effectively. If your child asks to do this, they could cut out each log and put it on the truck, as a way of checking their accuracy or just to play.

Your child can use a conventional measure to solve a practical problem.
Your child can compare two items by length with the help of a conventional measure.
Your child makes use of an effective practical measuring procedure.
Your child uses size language such as long/short and longer/shorter meaningfully.

KEY TO LEARNING @HOME