

Diagnostic TASK

FOCUS

Understanding Units

- Key Understanding 3
- Key Understanding 4

Direct Measure

- Key Understanding 2
- Key Understanding 3

Desk through the Doorway

K–Year 5

Purpose

To reveal if the student:

- counts units of length to say 'how many fit'
- chooses to use units to compare lengths
- chooses appropriate units to compare lengths
- can use units without gaps and overlap
- recognises and uses part units.

Materials

Desk, or table some distance from a doorway

A variety of objects which students can choose to use as units, e.g. felt-tipped pens, pop sticks, matchsticks, paperclips, blocks, marbles, beads etc.

Teacher Recording Sheet

Procedure

Sit with a student at a desk or table that is a similar width to, but a few metres away from, a doorway, and ask:

- *How many pens do you think will fit across the table?* If necessary, prompt by saying, *Could you use the pens to check?*
- *How wide is the table?*

Observe and record what the students say and do:

- Are they careful to avoid gaps and overlaps?
- Do they only fit whole pens, or do they consider part pens as well?

Then ask:

- *If I wanted to push or slide this table out the door, do you think it would fit?*
- *Could you use something on the table to check?* (indicate the pens and the range of other objects)

Observe and record what the students say and do. Do they:

- only consider a direct comparison or non-numerical indirect comparison
- use the pen measurement to say whether the desk will fit through the doorway
- use a different unit for each measurement
- choose a unit that has length
- consider gaps and overlaps
- measure the appropriate part of the doorway
- use fractional numbers for part units.

Desk through the Doorway: Teacher Recording Sheet

Name _____ Year _____ Date _____

- 1. How many pens do you think will fit across the table?** If necessary, prompt with, **Could you use the pens to check?**

- 2. How wide is the desk?**

- 3. If I wanted to push this table out the door, do you think it would fit?**
How could you check? If the student's response is direct comparison, ask, *Is there something else we could use to work it out?*