

# Diagnostic TASK

FOCUS

## Understand Units

- Key Understandings 3, 4

## Direct Measure

- Key Understanding 3

## Snail Trails

Years 1–5

### Purpose

To reveal if the student:

- chooses appropriate objects to represent units of length
- counts to say 'how many fit'
- uses objects that have uniform lengths and lines up without gaps or overlaps
- chooses the same sized unit for each line
- is not distracted by the number (where there are more small units on one line and fewer larger units on the other line)

### Materials

A copy of the Snail Trails sheet

Mixed range of materials, e.g. matches, blocks, counters, unifix cubes, toothpicks, paperclips, marbles etc. (include broken matches and toothpicks)

Teacher Recording Sheet

### Procedure

Individual interviews are appropriate for this task.

Give the student the Snail Trails sheet and ask them to say which trail is longer (NB: the first trail is longer).

Prompt the student to use units to measure both lines to say which is longer.

If the student places the same sized unit on both lines, change the units on one line so that the number of units on the **shorter** line is more than the number of units on the **longer** line. For example, remove the units from the shorter trail and replace them with a smaller unit or, if the student has already used the smallest unit, substitute larger units on the longer line.

Ask the student to say how long each line is, using the units now on each line, and then ask the student again to say which is the longer line.

Ask the student to explain their choice by asking, *How do you know?* If the student has changed their mind, ask *Why did you change your mind?*

Record the responses.

# Snail Trails: Teacher Recording Sheet

Name \_\_\_\_\_ Year \_\_\_\_\_ Date \_\_\_\_\_

- 1. We are going to pretend that two snails left trails on the lawn last night. Can you work out which snail left the longer trail? Use these materials to help you.**

If necessary, prompt the student with, **Can you use any of these materials to find out how long this trail is?** (point to one trail) or **How many of these (cubes) fit along this line?**

Prompt the student to measure the other trail if they do not do so independently.

- 2. If the student does not tell you which trail is longer after placing materials on each line ask, Now can you tell me which snail has the longer trail? How do you know?**

If the student chooses the same unit for both lines, remove the units from the *shorter* line and replace them with a *smaller* unit. If the student has already used the smallest unit, then substitute *larger* units on the *longer* line.

Ask: **How many counters** (or whatever unit used) **fit along here?** (point to the shorter line) **How many matches** (or whatever unit used) **fit along here?** (point to the longer line)

**So which one is the longer? How do you know?** If the student changes their mind, ask, **Why did you change your mind?**

# Snail Trails

