

Approach: One to one

Level: Year 4 and year 8

Focus: Estimating (area related).

Resources: 3 trays: red, blue and green; 20 beans; recording book.

Questions/instructions:

In this activity I want you to estimate (or guess) how many of these beans will fit into each of these trays.

Give the student the red tray and 1 bean.



1. What is the largest number of beans this frame will hold if the beans are lying flat with none on top of each other? I'll write your estimate on the activity sheet.

% responses	
2001 ('97) year 4	2001 ('97) year 8
9-11	34 (32) 33 (43)

Give the student the beans.

Now use these beans to check your estimate by arranging them on the tray, like this.

Show the student how to fit 10 beans in the tray.



So, how many beans actually fit?

Now give the student the blue tray.

Ensure BOTH of the trays are in front of student.



2. How many beans do you think this blue tray will hold? This time we won't use the beans, but you can look at them. I will write your estimate on the activity sheet.

	year 4	year 8
18-22	59 (52)	71 (78)

Give student green tray — leave the red and blue trays in front of the student.



3. How many beans do you think this green tray will hold? We still won't use the beans, but you can look at them. I will write your estimate on the activity sheet.

Record student answer.

	year 4	year 8
36-44	36 (32)	49 (62)

Commentary

Only about one third of the students managed an accurate estimate in question 1. The year 8 students showed greater ability to use the actual value (demonstrated) to improve their estimates in questions 2 and 3. The 2001 year 4 students did a little better than their 1997 counterparts, but 2001 year 8 students did markedly worse.