

## Estimation

**Approach:** One to one interview

**Level:** Year 8 & year 4

**Resources:** 6mm x 16cm wooden rod; small bottle containing 30ml water;  
15cm diameter wire circle (year 8 only); video showing a swimmer swimming 25m.

		% responses	
		year 8	year 4
<i>Questions/instructions</i>			
In this activity I am going to ask you to estimate some measurements.			
Make your best guess at the answers to the questions.			
We won't use any measuring instruments.			
As we do each question, I'll get you to write your answers on the answer sheet.			
1. How many centimetres long do you think the rod is?	within 20% of 16cm	45	26
	20-40% out	42	42
2. How many grams does the rod weigh?	within 20% of 2.5g	27	25
	20-40% out	2	3
3. What do you think is the temperature of the rod?	✓ 10-24 C	35	13
	0-9 or 25-30 C	52	50
4. How many millilitres of water is in the bottle?	within 20% of 30ml	14	6
	20-40% out	14	6
5. What is the temperature of the water in the bottle? (You can take the lid off and test it.)	✓ 10-24 C	22	5
	0-9 or 25-30 C	63	56
6. How many seconds did the swimmer take.	within 20% of 16secs	47	26
	20-40% out	32	29
YEAR 4 ONLY			
7. How tall do you think I am? Tell me how tall I am in centimetres. I'll stand up	within 30cm		27
	30-60cm out		12
YEAR 8 ONLY			
8. What is the length of the wire circle?	within 20% of 47cm	29	
	20-40% out	44	
9. What is the weight (mass) of the wire circle?	within 20% of 28g	9	
	20-40% out	6	
10. What is the area of the bottom of the water bottle?	within 20% of 7cm <sup>2</sup>	14	
	20-40% out	19	