

Trend task

How Does it Work?: Eggtimer

Approach: One to one

Level: Year 4 and year 8

Focus: Explain the operation of measuring instrument and predict the effects of alterations of its components.

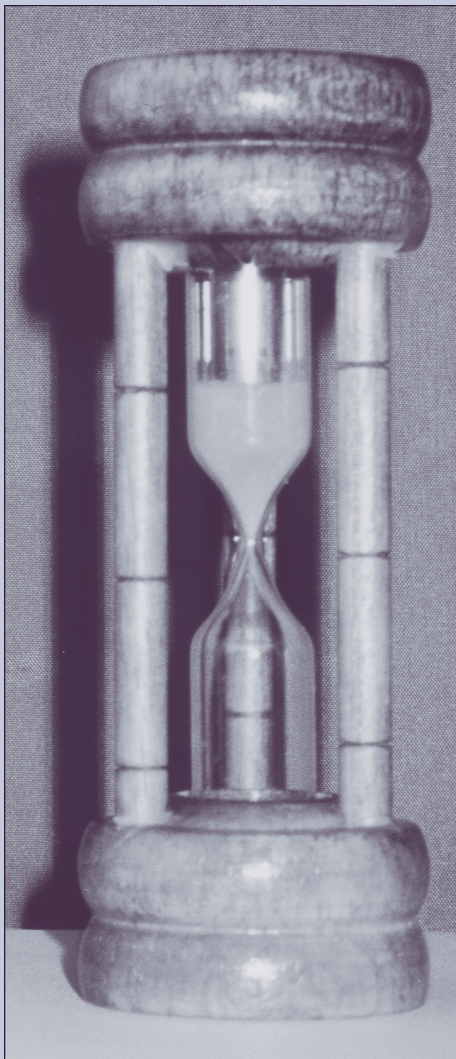
Resources: Household instrument: eggtimer.

Questions/instructions:

In this activity I want you to try to explain how a bit of equipment works.

Give the student the eggtimer.

First of all have a look at this.



		% responses	
		1999 ('95)	1999 ('95)
		year 4	year 8
1. What do people use this piece of equipment for?	not marked		
If the student doesn't know, tell them it is used to show when a certain amount of time has passed.			
2. What is this piece of equipment called?	eggtimer	30 (38)	55 (64)
If the student doesn't know tell them it is an eggtimer.			
3. Can you explain how the eggtimer works?			
<i>When you turn it over the sand runs through, taking a fixed amount of time</i>			
	clear and correct	18 (22)	41 (49)
	limited understanding	63 (72)	53 (49)
4. What would happen if:			
• there was more sand?	longer time	65 (64)	87 (87)
• there was a bigger hole in the middle?	shorter time	85 (93)	97 (97)
• the sand had larger grains?	longer time	29 (25)	48 (41)
	might not go through	64 (63)	58 (56)
• the sand was damp?	stick together and not go through	76 (83)	86 (92)
5. How could you change the egg-timer to make the time longer?			
	more sand	59 (53)	77 (71)
	smaller hole	18 (18)	42 (38)
	larger grains	5 (5)	11 (11)

Commentary:

Students in 1999 appeared less familiar with this form of egg timer than the 1995 students. There was, however, no clear difference between the two years in ability to understand the operation of the timer and implications of changes in its components. Year 8 students scored substantially higher than year 4 students on most questions.