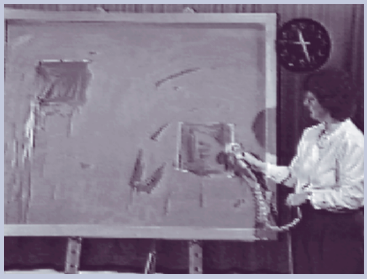
Trend Task — Disappearing Water

Approach: Station *Level:* Year 4 and year 8

Focus: Explanation of evaporation and understanding of the water cycle.

Resources: Video showing evaporation with hand fanning and use of a hair dryer.

Two squares were marked on the blackboard. One was dried using fanning (left) one was dried using a hair dryer (right).



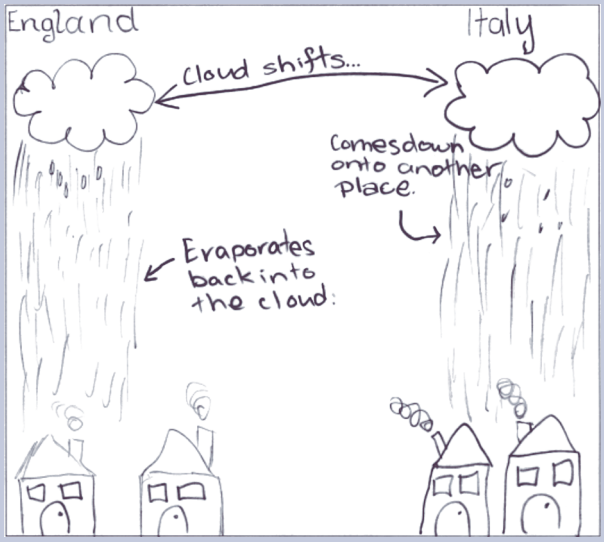
Questions/instructions:

In this activity you are going to watch a video clip showing people cleaning a blackboard, then answer some questions about what you saw happening in the video.

Watch the video and then answer these questions. You may replay the video if you need to.

	% responses 1999 ('95) year 4	1999 ('95) year 8
1. Why did fanning the wet blackboard help it to dry?		
fanning moves moist air away from the blackboard to allow more to evaporate	0 (0)	3 (2)
mentions wind and/or water vapour and/or evaporation	5 (4)	18 (13)
mentions wind or air movement only	64 (45)	60 (60)
2. The hairdrier uses heat as well as fanning. Why did the heat dry the blackboard faster?		
mentions increased warmth helping evaporation	28 (9)	60 (37)
3. Where does the water go as the blackboard dries?		
evaporation or equivalent (eg. "into the air")	36 (40)	71 (75)
4. Now think about a puddle on the footpath. Where does the water go when the puddle dries out?		
both in to the air and the ground	–	7 (5)
into the air/sky	–	66 (63)
into the ground	–	16 (13)

	% responses 1999 ('95) year 4	1999 ('95) year 8
5. The water that falls as rain in one place may come from another place that is far away. Explain how this happens. You can draw a diagram with labels to help explain your answer.		
Includes all three aspects: water evaporation from source, cloud movement, rain falling elsewhere	–	30 (30)



Commentary:

Overall, the changes in performance between 1995 and 1999 were inconsistent and small. Year 8 students performed substantially better than year 4 students.