

Approach: One to one

Year: 4 & 8

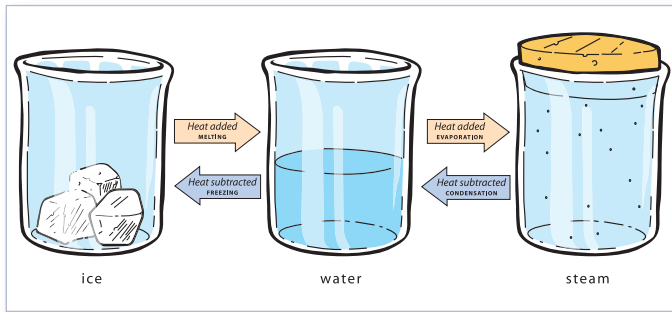
Focus: Evaporation and condensation

Resources: Video recording on laptop computer, picture

Questions / instructions:

This activity uses the computer.

Place the picture of the water cycle in front of the student.



1. Here is a picture showing the three forms of water. Use the picture to tell me how water changes.

- ice becomes water when it is heated and/or melts
- water becomes ice when it is cooled and/or freezes
- water becomes steam when it is heated and/or evaporates
- steam becomes water when it is cooled and/or condenses

% responses	
y4	y8
70	84
25	51
39	74
9	33

Point to the appropriate arrows as you give the following explanation.

So if you heat ice, it will become water. If you cool down or freeze water it will become ice. If you heat water, it will become steam. If you cool steam, it will become water.

Now I'll show you a video which shows dirty water being turned into clean water. Then I'll ask you to tell me how the dirty water was turned into clean water.



No sound. Video demonstrates placing empty glass in hot dirty water; covering bowl with gladwrap; placing weight in centre of covering above empty glass; closeup of droplets running down toward weight and dripping into the glass; removing weight and covering; showing glass now with clean water.

Click the *Dirty Water* button. The video will start.

2. Tell me how some of the dirty water was turned into clean water.

	% responses	
	y4	y8
water in bowl evaporates/turns to steam	35	72
dirt stays in rest of water	5	25
steam condenses on plastic wrap/becomes water droplets on plastic wrap	20	60
water droplets slide down plastic wrap to low point (centre)	24	63
(clean) water droplets fall into glass	48	88

% responses	
y4	y8
Total score: 8-9	1 20
6-7	9 34
4-5	23 29
2-3	36 13
0-1	31 4

Commentary:

Year 8 students performed much better than year 4 students on this task.