

Approach: Station
 Focus: Climate influences
 Resources: Picture

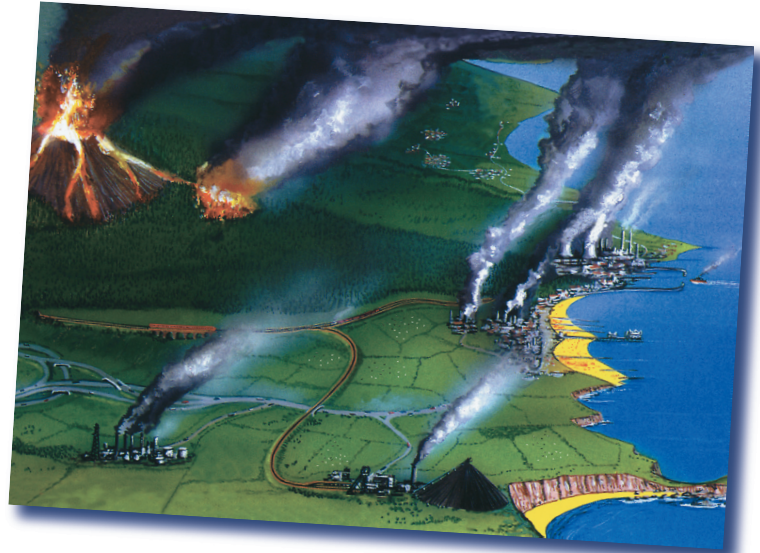
Year: 8

Questions / instructions:

Glasshouses are usually warm because the glass lets heat in from the sun but slows it down from getting out.

Scientists believe that the earth is warming up just like a glasshouse. Warmth from the sun is being trapped under a layer of gases. These gases are stopping the heat from escaping. This is making the earth hotter.

Look at the picture and then answer the questions below.



1. Name **four** things in the picture that add gases into the air.

	% responses 2003 ('99)	year 8
volcano	82 (73)	
forest fire	45 (51)	
factories/chimneys/smoke/city buildings	89 (88)	
trains	15 (13)	
cars/buses/trucks	34 (26)	
boats/ships	58 (63)	
houses	11 (10)	
people/animals	1 (1)	
other valid response	4 (0)	

2. What problems might happen if planet Earth gets hotter?

	% responses 2003 ('99)	year 8
melting of polar ice caps and snow/ice on mountains	21 (17)	
sea levels rising	13 (10)	
low lying islands and coasts submerged, flooded	11 (6)	
changes in weather patterns	23 (31)	
changes in plant and animal species	37 (37)	
increased exposure to UV rays (associated with increase in skin disease)	12 (13)	
other valid response	5 (4)	

3. Some people want us to cut down the amount of gases going into the air.

How do you think this could be done?

	% responses 2003 ('99)	year 8
reduce emissions from fires (domestic) and factories	27 (28)	
reduce emissions by engines burning fossil fuel (including use of car pooling, public transport)	57 (56)	
change numbers of animals or their diet (or genetics)	0 (1)	
reduce production and use of specialised gases (e.g. aerosols)	23 (21)	
absorb undesirable gases (e.g. plant trees)	1 (2)	
other valid responses	6 (4)	

Total score: 8 or more 15 (10)

6-7 43 (43)

4-5 32 (39)

2-3 9 (7)

0-1 1 (1)

Commentary:

Students responded more to visible smoke in the picture than to other known factors (such as animal flatulence). There was very little change between 1999 and 2003.