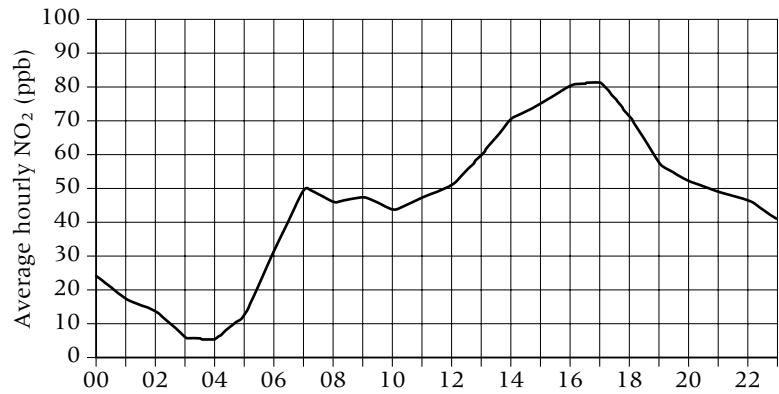


The following passage and graph came from a website in the UK.

Air quality monitoring is designed to provide data in support of a health study and a buildings study.

The graph below shows the nitrogen dioxide measurements from a street in the city centre. This is a daily (24-hour) profile for nitrogen dioxide averaged over a whole month. (ppb stands for parts per billion.)

The following table shows the standards and limits set by some of the relevant monitoring organisations.



Daily (24-hour) pollution profile for nitrogen dioxide averaged over a whole month.

Nitrogen dioxide (NO₂) recommended limits.

Standard	Pollution concentration (ppb)
EC Directive Standard limit value	104.6
Department of the Environment air quality bands	peak hourly average concentration
very good	<50
good	50–99
poor	100–299
very poor	>300

- 1 Which two studies will use the data from the air quality monitoring stations?
- 2 What might the city change as a result of these studies and the data?
- 3 At what times of the day are the nitrogen dioxide levels in the 'very good' air quality band as set by the Department of the Environment?
- 4 a At what time of the day are nitrogen dioxide levels at their highest?
b Why do you think the nitrogen dioxide levels are at their highest at this time?
- 5 Do the nitrogen dioxide levels ever exceed the EC Directive Standard limit value?
- 6 Which air quality band of the Department of the Environment describes the nitrogen dioxide levels in Cornmarket Street when they are at their highest?

S literacy, numeracy