

Air Under Pressure

Trace how pollution sources affect people and places in the United Kingdom.

SS6G8.b "Explain the causes and effects of air pollution in the United Kingdom."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline statements that describe causes of air pollution, and circle statements that describe its effects. Choose one cause and one related effect, then write the same number beside both.

Why Clean Air Matters

- ① Air pollution happens when harmful gases and tiny particles enter the air. In the United Kingdom, road traffic is a major source, especially diesel cars, vans, buses, and lorries. Their engines release nitrogen dioxide and particles. Factories, power stations, construction work, farming, and burning wood or coal can also add pollution. In busy cities, many vehicles travel close to homes and schools. Pollution can build up near crowded roads, particularly when wind is weak and rain is absent.
- ② Breathing polluted air can harm people's health. Fine particles can travel deep into the lungs, while nitrogen dioxide can irritate airways. Children, older adults, and people with asthma or heart and lung conditions may be affected most. Air pollution can trigger asthma attacks and make breathing harder. It also affects nature. Nitrogen pollution can damage plants and soils, and pollutants can make rain more acidic. Some pollutants also warm the planet or react in sunlight to form ground-level ozone.
- ③ The United Kingdom has improved air quality by limiting some industrial emissions and requiring cleaner vehicle technology. Yet air pollution remains a problem, because pollution can come from many sources. Weather matters too. High-pressure conditions may trap polluted air close to the ground, creating a pollution episode. Pollution can also cross national borders, so action by one town alone cannot solve every problem. Reducing car trips, using cleaner energy, and controlling emissions can lower the amount people breathe.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 Name two sources of air pollution in the United Kingdom from the passage.

2 Why can air pollution build up near busy roads?

3 Give one effect of air pollution on people and one effect on nature.

4 How can high-pressure weather and pollution from other countries make air pollution harder for one UK town to solve?

3 YOUR TURN _____ Your own words

A fictional UK neighborhood has heavy diesel bus traffic and many homes that burn wood in winter. Write four sentences explaining two causes of pollution, two effects, and one action that could reduce the problem. Use the word *because* or *so* to show a cause-and-effect link.

PART 1 • READ AND MARK

Underline statements that describe causes of air pollution, and circle statements that describe its effects. Choose one cause and one related effect, then write the same number beside both. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	Name two sources of air pollution in the United Kingdom from the passage.	Any two: road traffic, factories, power stations, construction work, farming, or burning wood or coal.
2	Why can air pollution build up near busy roads?	Many vehicles release pollution near homes and schools, and weak wind and absent rain can allow it to build up.
3	Give one effect of air pollution on people and one effect on nature.	People: it can irritate airways, trigger asthma attacks, or make breathing harder. Nature: it can damage plants and soils or make rain more acidic.
4	How can high-pressure weather and pollution from other countries make air pollution harder for one UK town to solve?	High-pressure conditions can trap polluted air near the ground. Pollution can cross national borders, so one town's actions alone cannot solve every problem.

PART 3 • YOUR TURN (SAMPLE ANSWER)

In Riverside, diesel buses and winter wood burning add gases and tiny particles to the air. These pollutants can irritate airways and trigger asthma attacks, especially for people with asthma. Nitrogen pollution can also damage nearby plants and soils. The town could use cleaner buses and reduce wood burning, so people would breathe less pollution.

Accept equivalent sources and effects stated in the passage. For the open response, look for two stated causes, two accurate effects, one reasonable action, and a clear cause-and-effect link.