
# Test 1

Reading


## The Great Smog of London

In December 1952, a thick layer of yellowy-green smog hung over the city of London for five days. The people of London were used to heavy fogs and smoky air but this was much more serious than previous smog events. It was impossible to see beyond a metre or two, which made driving dangerous or impossible. Public transport was closed down, sports events were postponed and ambulances couldn't reach patients. The smog even affected people indoors: concerts were abandoned and films cancelled because of the reduced visibility in large, enclosed areas. People wore smog masks bought at the chemists and shuffled along trying not to trip over kerbs or other obstacles in the street.


This particular 'pea-souper' was caused by a combination of high pollution, cold winter weather and a lack of wind. The pollutants mostly came from chimney smoke as people burned low-grade coal for heating at home. The cold snap meant more coal was being burned than usual. In addition, there were a number of coal-fired power stations in London, which were belching out thousands of tonnes of carbon dioxide, hydrochloric acid and sulphur dioxide into the atmosphere. Exhaust fumes from steam engines and diesel-powered buses further degraded the air quality. All of this pollution was trapped in the stagnant, cold air under a layer of warmer air, which acted like a lid.

# Test 1

Reading

10 MINS

It was only after the smog had blown away that people realised the damage that it had done. An investigation by the medical services revealed that the pollution had made around 100,000 people ill. Shockingly, the smog had also caused the deaths of at least 4000 people. Most of the victims were the elderly or the very young. The main causes of death were lung infections and lack of oxygen. A further 8000 people died in the weeks and months that followed.

The death toll caused a lot of public concern. As a result, the government introduced a number of regulations aimed at reducing air pollution. The Clean Air Act of 1956 created areas in towns and cities where people could only burn smokeless fuels, such as charcoal or gas. The Act also forced power stations to be moved out of town.

Despite these improvements - there hasn't been a major smog in London since 1962 - new research from 2010 shows that around 9000 people a year in the city die early because of air pollution. This time the culprit isn't coal smoke: it is toxic nitrogen dioxide emissions from diesel car engines.

Marks

1. Name **one** chemical responsible for air pollution from **each** of the time periods shown.

a. (from the 1950s)

_____

b. (from 2010)

_____

0
1

2. Look at the paragraph beginning: *This particular...*
**Find** and **copy one** word meaning *motionless.*

_____

0
1

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Reading

10 MINS

Marks

**3.** Look at the sentence: *Exhaust* fumes from *steam engines and diesel-powered buses further degraded the air quality.*
Which **two** words listed below most closely match the meaning of the word *degraded?*

Tick **two.**

| | |
|---|---|
| improved | D |
| contaminated | D |
| corrected | D |
| polluted | D |


0 1

**4.** The word smog is a combination of two other words. What are those **two** words? Use the first paragraph to help you.

_____

0 1

**5.** This kind of smog event was known as a 'pea-souper'. Explain why you think it was called that.

_____

_____

0 2

**6.** Look at the sentence: Most *of the victims were the elderly or the very young.* Why do think this was the case?

_____

_____

0 1

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10 MINS

Marks

7. More than one of the following sentences are true, but which **one** best summarises the overall message of the final paragraph?

Tick **one.**

| | |
|---|---|
| Killer smogs don't happen anymore. | D |
| London's air is much cleaner. | D |
| London's air is still polluted. | D |
| Fewer people are killed by air pollution today. | D |

0 1

8. Explain how the weather played a part in causing the Great Smog, using evidence from the text to support your answer.

0 2

*Well doVte! END* OF *READINQ TEST :l-!*

# Answers

Reading


## Mark scheme for Reading Test 1: The Great Smog of London

| | | |
|---|---|---|
| 1 | **Award 1 mark** (if both correct) for:<br>a. carbon dioxide, hydrochloric acid or sulphur dioxide<br>b. nitrogen dioxide | 1 |
| 2 | **Award 1 mark** for: stagnant | 1 |
| 3 | **Award 1 mark** (if both correct) for: contaminated; polluted | 1 |
| 4 | **Award 1 mark** (if both correct) for: smoke; fog | 1 |
| 5 | **Award 2 marks** for answers that refer to the smog being similar in **consistency** and **colour** to pea soup.<br>For example:<br>• It is thick/dense/heavy/concentrated. (thickness)<br>• It is green/yellow. (colour)<br>**Award 1 mark** for answers referring to either one of the acceptable points (consistency or colour).<br>Do **not** accept general answers relating to smog being like a soup. | 2 |
| 6 | **Award 1 mark** for answers referring to the comparative vulnerability of both groups to the effects of the smog. For example: They were weaker/They weren't as strong/They were more likely to get infections. | 1 |
| 7 | **Award 1 mark** for: London's air is still polluted. | 1 |
| 8 | **Award 2 marks** for answers referring to the **cold weather** and the **lack of wind** and the **effects** of both.<br>For example:<br>• The cold weather meant people were burning more coal than usual.<br>• There was more chimney smoke than normal because of the cold snap.<br>• There was no wind so the smog was stuck over the city.<br>• The cold smog was trapped under a lid of warmer air and couldn't escape.<br>**Award 1 mark** for answers that refer to either the cold weather OR the lack of wind and their effect.<br>Do **not** accept answers that do not mention the effects of the cold, windless conditions. | 2 |
| | **Total** | 10 |