

20.3 Pollution

Name: _____ Class: _____ Date: _____ **Total: 22 marks**

KEY WORDS eutrophication 富营养化 • climate change 气候变化 • fish 鱼类 • oxygen 氧气
• methane 甲烷

Objective

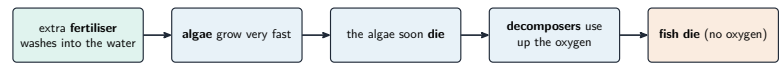
Build the skills to answer exam questions on **pollution** 污染 — water pollution and **eutrophication** 富营养化, plastics, and the **greenhouse effect** 温室效应.

You must be able to:

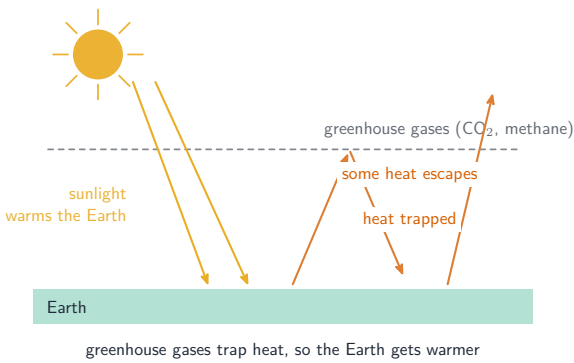
- describe the steps of eutrophication
- describe the problems caused by non-biodegradable plastics
- explain how greenhouse gases cause climate change

1 Worked examples

■ Eutrophication and the greenhouse effect



Eutrophication: extra fertiliser makes algae bloom, then the water loses oxygen and fish die



Greenhouse gases (CO₂, methane) trap heat → climate change

2 Practice

2.1 Name two greenhouse gases. [2]

2.2 State one problem caused by non-biodegradable plastics. [1]

3 Exam-style questions

3.1 In eutrophication, the fish die because: [1]

- | | |
|---|---|
| A | B |
| C | D |
- A the water becomes too cold
B decomposers use up the dissolved oxygen
C the algae eat the fish
D there is too much oxygen

3.2 Excess fertiliser runs into a river.

(a) Describe the steps of eutrophication that follow.

[4]

3.3 Fertiliser runs off farmland into a river. Over several weeks the river becomes cloudy, then the fish die.

(a) Name this process and describe, in the correct order, the **four** stages that lead to the fish dying.

[5]

(b) Explain why the fish die even though the plants were photosynthesising and making oxygen.

[3]

(c) Describe **two** problems caused by plastic waste in the sea.

[2]

(d) Explain how the greenhouse effect works, and name **two** greenhouse gases.

[4]
