

Exercise walk-through

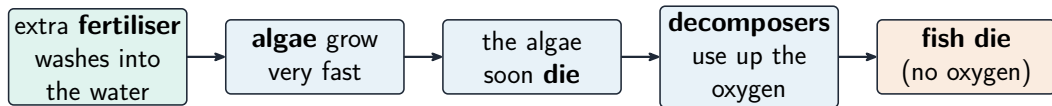
Pollution ■ 20.3

eXercise

You must be able to

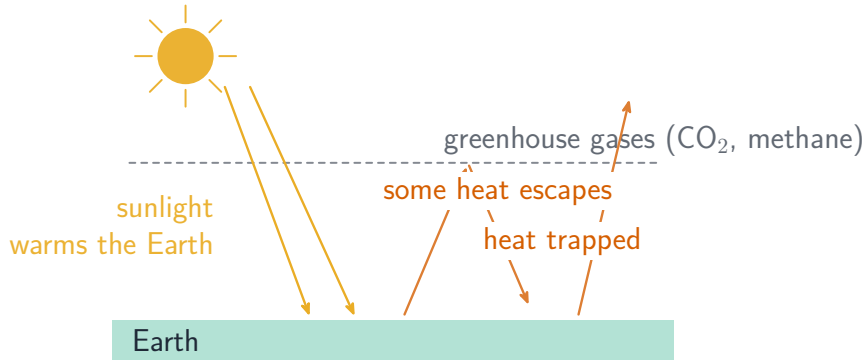
- describe the steps of eutrophication
- describe the problems caused by non-biodegradable plastics
- explain how greenhouse gases cause climate change

Method — Eutrophication and the greenhouse effect



Eutrophication: fertiliser → algae bloom → decomposers use O → fish die

Method — Eutrophication and the greenhouse effect



greenhouse gases trap heat, so the Earth gets warmer

Greenhouse gases trap heat leaving the Earth

Practice 2.1 ■ 2 marks

Name two greenhouse gases.

Solution 2.1

Method: Eutrophication and the greenhouse effect

Worked steps

carbon dioxide; methane **B1** **B1**.

Practice 2.2 ■ 1 mark

State one problem caused by non-biodegradable plastics.

Solution 2.2

Worked steps

they build up and harm wildlife (animals eat them or get trapped) **B1**.

Exam-style 3.1 ■ 1 mark

In eutrophication, the fish die because:

- 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

Solution 3.1

Method: Eutrophication and the greenhouse effect

- 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

Worked steps

B. Decomposers use up the dissolved oxygen, so the fish die.

Exam-style 3.2 ■ 4 marks

Excess fertiliser runs into a river.

(a) Describe the steps of eutrophication that follow.

Solution 3.2

Method: Eutrophication and the greenhouse effect

Worked steps

(a) fertiliser adds nitrate ions to the water (M1); algae grow very fast then die (M1); decomposers break them down and use up oxygen in respiration (M1); the dissolved oxygen falls, so fish and other organisms die (A1).