

## Extended Homework Task

### Biology B17 Organising an ecosystem & B18 Biodiversity and ecosystems

#### Aiming for Grade 4

Name .....

**Please hand in a completed printed version at the end of the topic**

The online text book access to support this homework can be accessed through your Kerboodle account at [www.kerboodle.com](http://www.kerboodle.com).

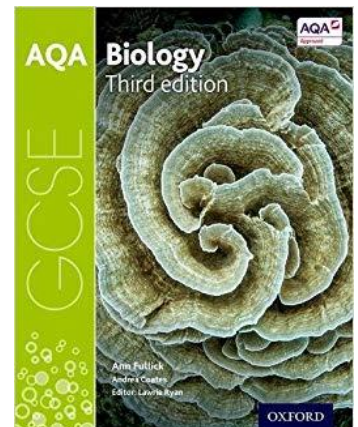
The username is your first initial and surname (no gap).

If you have not accessed the book before the password will be the same as your username. If you have logged on before you will have changed the password to your own choice.

Click onto the science 9-1 tile and then onto the digital book.

**Resources to support this homework can be found in the online student book**

- **Organising an ecosystem pages 276 – 283**
- **Biodiversity and ecosystems pages 286 – 309**



# B16 Organising an ecosystem – Aiming for Grade 4

## Aims

The aim of this homework is to help you revise the main topics in Chapter 16, Organising an ecosystem.

## Learning outcomes

After completing this activity, you should be able to:

- identify the producers, consumers, predators, and prey in a food chain
- state the processes that add and remove carbon from the atmosphere.

## Task

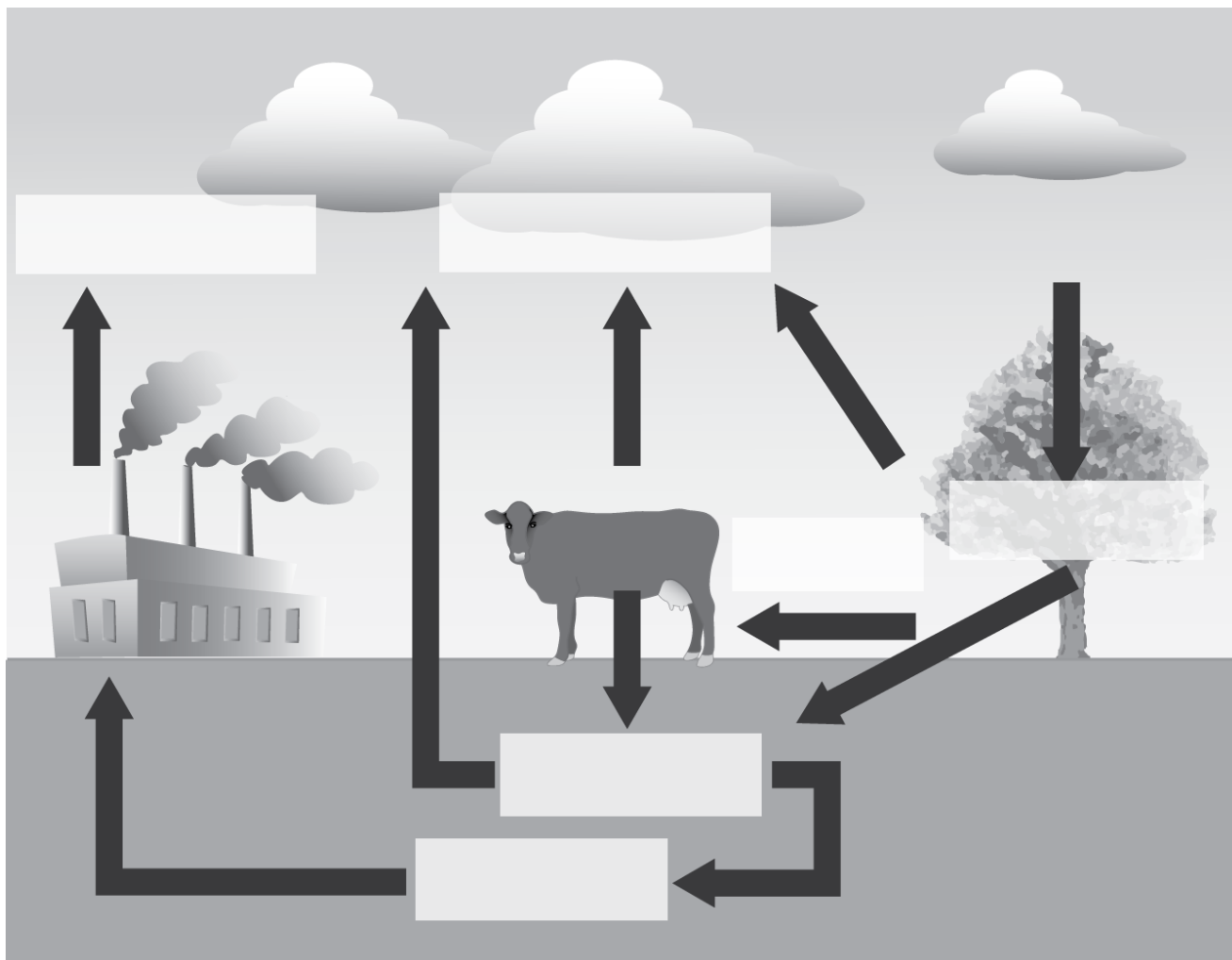
This activity will help you to revise material from Chapter B16, *Organising an ecosystem*. Try to focus on the questions that will **help you revise the material that you are least confident with**.

### Activity 1 – The carbon cycle

You will be labelling a diagram of the carbon cycle and answering questions about it.

### Activities:

#### 1 The carbon cycle



Complete the diagram of the carbon cycle using the following labels:

combustion

photosynthesis

respiration

decomposition

eating

fossilisation

Answer the following questions about the carbon cycle:

a Name the processes that introduce carbon to the atmosphere.

.....  
.....

b Name the process that removes carbon from the atmosphere.

.....  
.....

c Name the type of organisms that decay dead matter and waste.

.....  
.....

Extension questions:

d Can you explain why deforestation increases the amount of carbon in the atmosphere?

.....  
.....

e Can you suggest ways in which we can decrease the amount of carbon entering the atmosphere?

.....  
.....

## B17 Biodiversity and ecosystems – Aiming for Grade 4

### Aims

The aim of this activity is to help you revise the main topics in this Chapter B17, *Biodiversity and ecosystems*.

### Learning outcomes

After completing this activity, you should be able to:

- produce a visual revision aid which summarises the key points about biodiversity
- explain how human activity affects diversity.

### Task

You are going to create a series of revision visual summaries about biodiversity.

There are five topics your revision visual summaries could be about:

- 1 pollution
- 2 deforestation and peat bog destruction
- 3 global warming and the greenhouse effect
- 4 maintaining biodiversity
- 5 food security.

Choose **three** of the topics to create visual summaries about. **Try to pick topics that you feel you need extra revision in.**

Complete on plain paper. You can use the digital textbook to help you.

**Topic 1 – pollution**

Subdivide this section into land pollution, water pollution, and air pollution.

Land pollution: Write down the causes and effects of land pollution.

Water pollution: Write down the causes and effects of water pollution, including eutrophication.

Air pollution: Write down the causes and effects of acid rain, global dimming, and smog.

**Topic 2 – deforestation and peat bog destruction**

Write down the effects of deforestation.

Write down the causes and effects of peat bog destruction.

**Topic 3 – global warming and the greenhouse effect**

Write down the causes and effects of global warming. Remember to include some information on the greenhouse effect.

**Topic 4 – Maintaining biodiversity**

Write down the ways that humans can maintain biodiversity.