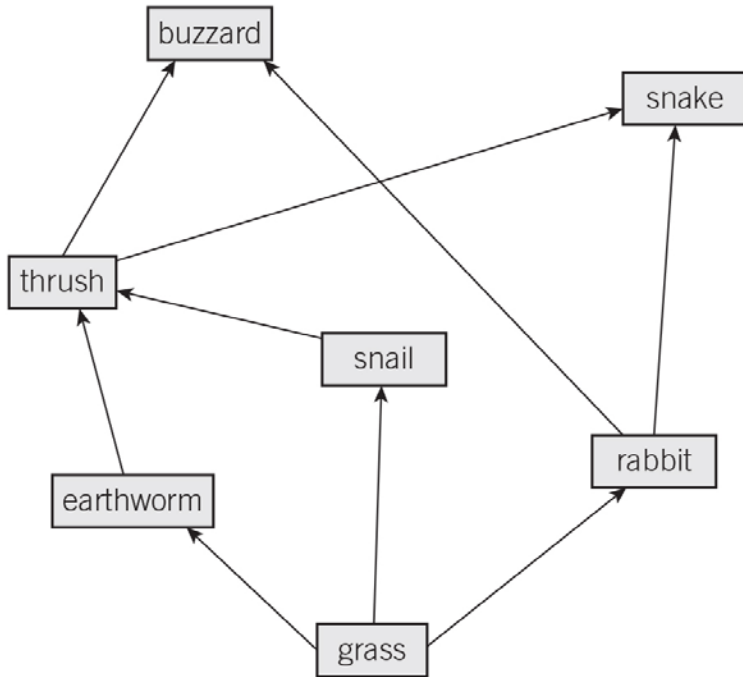


Ecosystems, interdependence, and plant reproduction

Task 1

Use the food web to answer the questions below.



1 Organisms in a food web depend on each other for nutrients (food).

a Name the animals that eat the grass

b Which animals are eaten by the snake?

c Name three predators.

d Which animals have two predators?

e Name the producer.

2 The population of a species is affected by the number of its predators and prey. The population is also affected by disease, pollution, and competition.

a Complete the following sentences using the words **more** or **less**.

If a disease killed all the rabbits, there would be _____ food for the snails and earthworms but _____ food for the snake and buzzard. Then the snake and buzzard would eat _____ thrushes.

b Choose the correct words to complete the sentences. Each word should only be used once.

bioaccumulation competition nutrition pollution population

If the _____ of rabbits decreases, there will be more grass for the snails and earthworms because there is less _____ for the grass.

This means there will be more _____ for the thrushes. Some gardeners spray the grass with chemicals to kill the weeds. The chemicals cause _____. The snails and earthworms eat the weed killer when they feed on the grass so the weed killer will build up in the body of the thrush in a process called _____.

3 Add these food chains to the diagram of the food web.

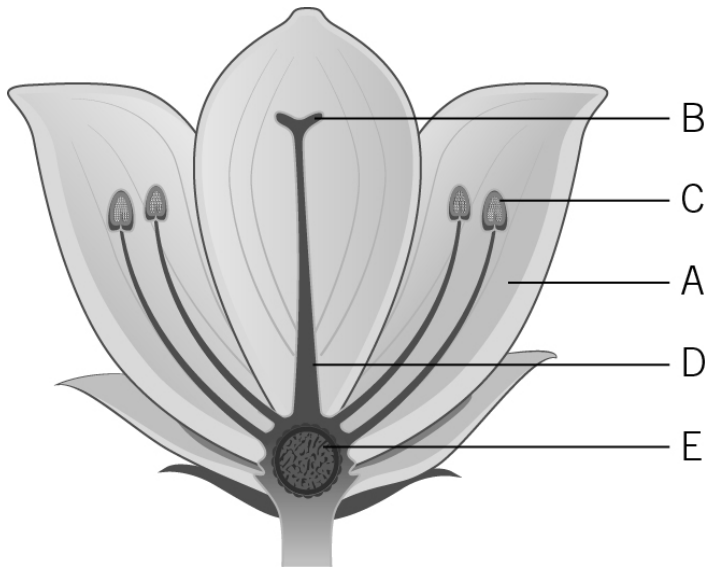
clover → rabbit → fox

clover → snail → blackbird → snake

Task 2

Look at the diagram of a flower. Identify the parts A–E from the list below and choose the function of each part (listed below the diagram).

Parts of a flower: **anther**, **filament**, **ovary**, **ovule**, **petal**, **sepal**, **stem**, **stigma**, **style**.



Functions of parts of a flower:

- produces pollen
- contains ovules
- holds up the stigma
- receives grains of pollen
- attracts insects
- holds up the anther
- female sex cell
- male sex cell

Letter	Name of part	Function of the part
A		
B		
C		
D		
E		

Task 3

1 What is pollination?

2 Pollen can be carried by wind or by insects.

Complete the table to describe how each part of a flower is adapted for wind or insect pollination.

Part of flower	Wind pollination	Insect pollination
pollen	large number of small, light grains	
anther		held firmly inside the flower
petal	small, dull brown or green	
stigma		sticky
nectar	no nectar	

Task 4

Copy the following sentences in the correct order so that they describe the main steps in plant reproduction.

- A** The seeds are dispersed.
- B** The male nucleus moves down the pollen tube.
- C** A pollen grain lands on a stigma during pollination.
- D** The ovules develop into seeds inside the ovary which forms the fruit.
- E** A pollen tube grows down the style.
- F** The male nucleus joins with the female nucleus in fertilisation.
- G** The seeds start to grow in the process of germination.

Task 5

1 There are four main methods of seed dispersal.

Read the descriptions and choose the most likely method of seed dispersal.

- small mass, have parachutes /wings = _____
- hooks to attach to fur = _____
- woody, waterproof fruit = _____
- fruit that burst open = _____
- sweet, brightly coloured fruit = _____

2 Explain why seed dispersal is important to the survival of the parent plant and its offspring.

Think about the things the plant needs to survive and grow.
