

Q1. Squirrels live mainly in woodland. There are two types of woodland in Great Britain: coniferous woodland containing trees such as Scots pine and Norway spruce, and broad-leaved woodland containing trees such as Hazel, Beech, Oak, Sycamore and Sweet chestnut.







The red squirrel is a native species, the grey squirrel was introduced at the beginning of this century. Since the introduction of the grey squirrel, the red squirrel has largely disappeared from broad-leaved forests in England.

(a) Suggest **two** factors which might have caused the fall in the population of red squirrels.

- 1
- 2

(2)

(b) The drawing gives information about the two types of squirrel.

RED ←		HOW THEY DIFFER		→ GREY	
Weight: ¾ lb	Appearance: tufted ears and chocolate coat in winter; chestnut in summer.	Habitat: favours large coniferous forest.	Weight: 1½ lb	Appearance: ears not tufted, silver-grey coat in winter, yellow-brown in summer	Habitat: favours broadleaved woodland and can colonise hedgerows.
The red has a shy, retiring nature and spends 70% of time in the forest canopy.			A natural showman and acrobat, the grey spends only 14% of time in the canopy.		
FOODS THE REDS LIKE... AND THOSE THEY DON'T					
Scots pine cone	Hazel nuts	Norway spruce cone	Beech mast	(Oak) acorns	Sycamore Sweet chestnut
					

Up to six times as many grey squirrels as red can populate broadleaved woodlands, while red squirrels can match the density of greys only in coniferous forests

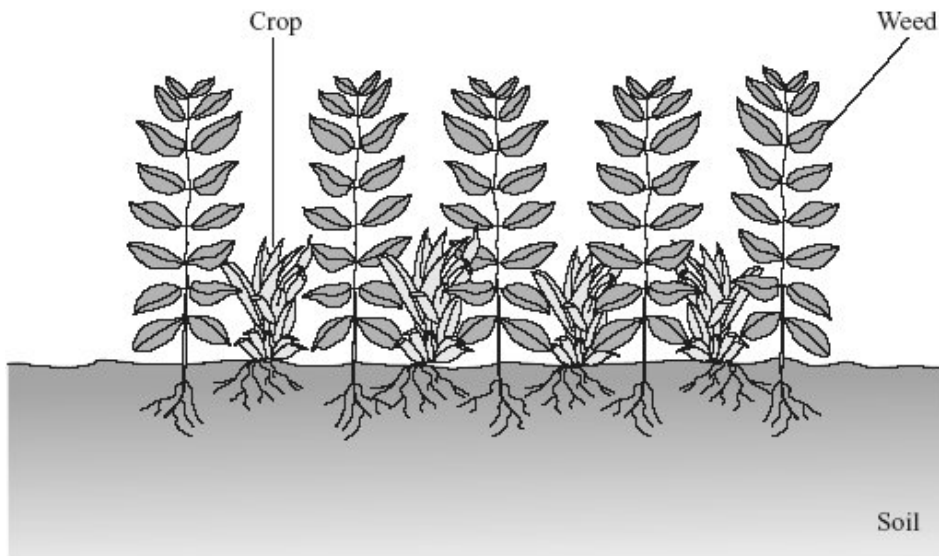
Using **only** information given above, suggest **two** reasons why the population of grey squirrels has risen whereas the population of red squirrels has fallen.

- 1
-
- 2
-

(2)

(Total 4 marks)

Q2. Farmers need to get rid of weeds because they can stop crops growing well.



(a) Write down **three** things that crops and weeds compete for.

1

2

3

(3)

(b) Complete this sentence by crossing out the **two** words that are wrong in the box.

Chemicals that are used to kill weeds are called

- | |
|-------------|
| fertilisers |
| herbicides |
| pesticides |

(1)
(Total 4 marks)

Q3.



Tree on its own



Trees inside a wood

The drawing above shows the shapes of trees grown on their own and inside a wood.

- (a) Write down **two** differences you can see between the tree grown on its own and those growing inside a wood

1

.....

2

.....

(2)

- (b) Trees inside the wood have to compete with each other for the things which they need to grow.

List **three** things for which the trees compete.

1.

2.

3.

(3)

(Total 5 marks)

M1. (a) 2 of e.g.
competition for food competition for space disease 2

(b) e.g.
greys eat greater range of food
greys larger – more effective competitors 2

[4]

M2. (a) any **three** from:
space
accept land, room
water
accept rain
nutrients
accept fertilisers, nitrates, minerals
*do **not** accept food*
*do **not** accept just sun*
light
carbon dioxide 3

(b) herbicides 1

[4]

##

(a) trees in wood (allow converse)
taller
fewer leaves
thinner trunks
fewer branches
branches/leaves at top only
any 2 for 1
mark each 2

- (b) light
water
space
nutrients
(allow up to 2 named substances e.g. CO₂/O₂/NO₃)
any 3 for 1 mark each

3

[5]

