

Name _____

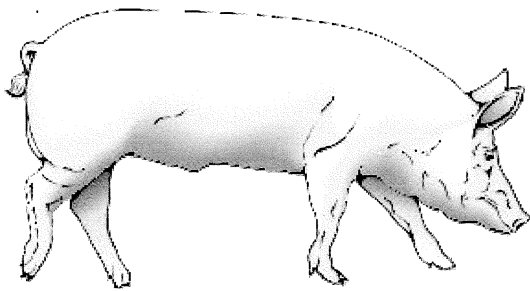
Aldenham School



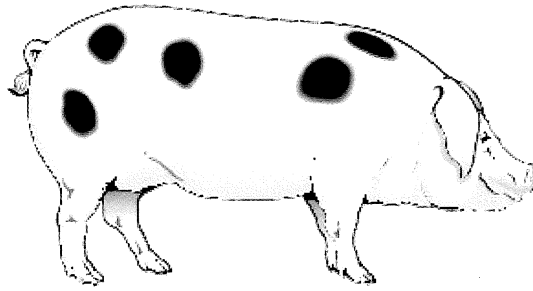
Science Department 13+ Exam - Biology 2015

20 minutes

Q1. The drawings below show pigs from two different breeds.



Tamworth



Gloucester Old Spot

(a) (i) From the drawings above, give **two** ways in which the pigs are different.

1.

1 mark

2.

1 mark

(ii) What are these differences called?
Tick the correct box.

adaptations

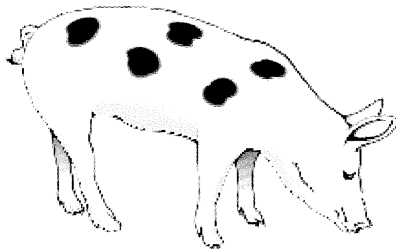
classification

fertilisation

variations

1 mark

(b) The drawing below shows a piglet bred from a Tamworth and a Gloucester Old Spot.



Give **one** way you can tell that one of its parents is a Tamworth.

.....

1 mark

(c) (i) When pigs reproduce, which **two** types of cell pass information from the pigs to their piglets?

Tick the **two** correct boxes.

blood cell	<input type="checkbox"/>	nerve cell	<input type="checkbox"/>	cheek cell	<input type="checkbox"/>
egg cell	<input type="checkbox"/>	muscle cell	<input type="checkbox"/>	sperm cell	<input type="checkbox"/>

2 marks

(ii) When pigs reproduce, two cells join together.

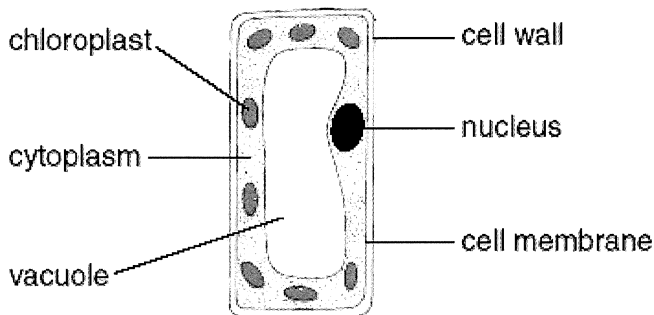
What is this process called?

Tick the correct box.

adaptation	<input type="checkbox"/>	classification	<input type="checkbox"/>
fertilisation	<input type="checkbox"/>	variation	<input type="checkbox"/>

1 mark
maximum 7 marks

Q2. The diagram below shows a plant cell.



(a) In which part of a plant would you find this type of cell?

.....

1 mark

(b) (i) Give the function of the nucleus.

.....
.....

1 mark

(ii) Give the function of the chloroplasts.

.....
.....

1 mark

(iii) Give the function of the cell wall.

.....
.....

1 mark

(c) Give the names of **two** labelled parts that are **not** present in animal cells.

1.
2.

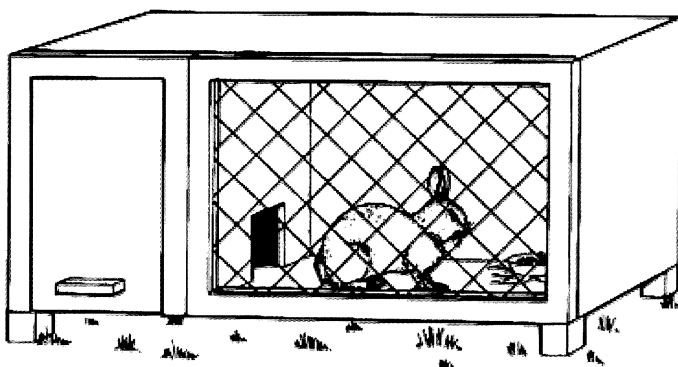
2 marks

(d) Tick **one** box in each row to show whether the statement is true for photosynthesis **or** for respiration.

statement	photosynthesis	respiration
carbon dioxide is produced		
light is needed		
it occurs in plants and animals		
oxygen is produced		

2 marks
maximum 8 marks

Q3. Andrew put his rabbit's cage on the grass.



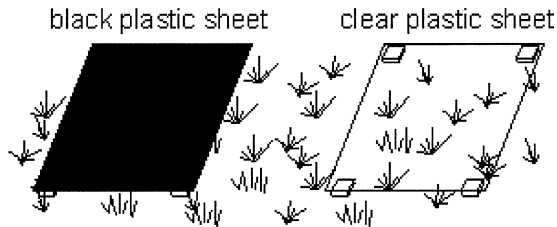
A week later, the grass under the cage had turned yellow.

(a) Give **one** reason why the grass had turned yellow.

.....
.....

1 mark

(b) Andrew wanted to test why the grass had turned yellow. He put two sheets of plastic just above another patch of grass. One sheet was black and the other sheet was clear.



A week later, the grass under the black sheet was yellow. The grass under the clear sheet was green.

(i) Explain why he used the clear plastic sheet as well as the black sheet.

.....
.....

1 mark

(ii) Andrew left the black sheet there for several more weeks. What happened to the grass under it?

.....
.....

1 mark

(c) Tick the boxes by **two** things which **both** rabbits **and** grass plants can do.

they eat

they grow

they move from place to place

they reproduce

they breathe in and out

2 marks
Maximum 5 marks