



KS3 Science

Classification

Question Paper

Time available: 39 minutes

Marks available: 61 marks

1. The drawings below show eight different animals.



sparrow



cat



dragonfly



housefly



lizard



squirrel



snake



hawk

not to scale

(a) Put a ring around the **two** animals above that do **not** have a backbone.

2 marks

(b) What are the names of **two** mammals above?

1

2

1 mark

(c) (i) What are the names of **two** reptiles above?

1

2

1 mark

(ii) From the drawings, what is **one** feature that all reptiles have?

.....

1 mark
maximum 5 marks

2.

The drawing below shows the remains of an animal found in a rock.



(a) Some scientists think the animal in the drawing above was a bird.

(i) Give **one** feature of the animal above that suggests it was a bird.

.....

1 mark

Other scientists think the animal was a reptile.

(ii) What are reptile skins covered with?

.....

1 mark

(b) The animal lived millions of years ago. Scientists used the remains to draw what they think the animal looked like when it was alive.



Why can scientists **not** be certain that the animal looked like the drawing above?

.....
.....

1 mark

(c) Give the name for the remains of living things found in rocks.

.....

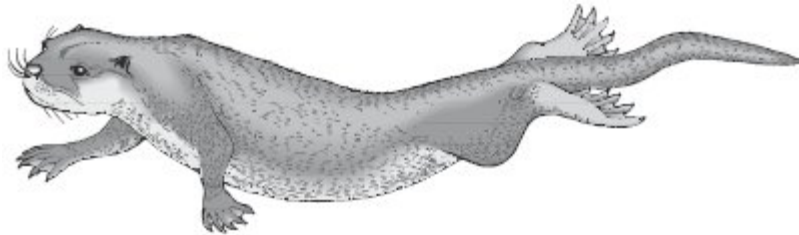
1 mark

- (d) Igneous rocks can be formed from lava from volcanoes.
The remains of living things are **not** found in rocks made from lava.
Why does lava destroy the remains of living things?

.....

1 mark
maximum 5 marks

3. The picture below shows a mammal called an otter.



- (a) Give **one** feature that **only** mammals have.

.....

1 mark

- (b) Otters live by rivers.

Give **one** way the otter is suited for swimming.
Use the picture above to help you.

.....

1 mark

- (c) Otter cubs are born in a burrow under the ground.



- (i) How does this help the otter cubs survive?

.....

.....

1 mark

(ii) Why must the burrow be above the level of the water in the river?

.....
.....

1 mark

(d) Otters catch fish and birds for food.

Which word below describes an otter?

Tick the correct box.

herbivore	<input type="checkbox"/>	predator	<input type="checkbox"/>
prey	<input type="checkbox"/>	producer	<input type="checkbox"/>

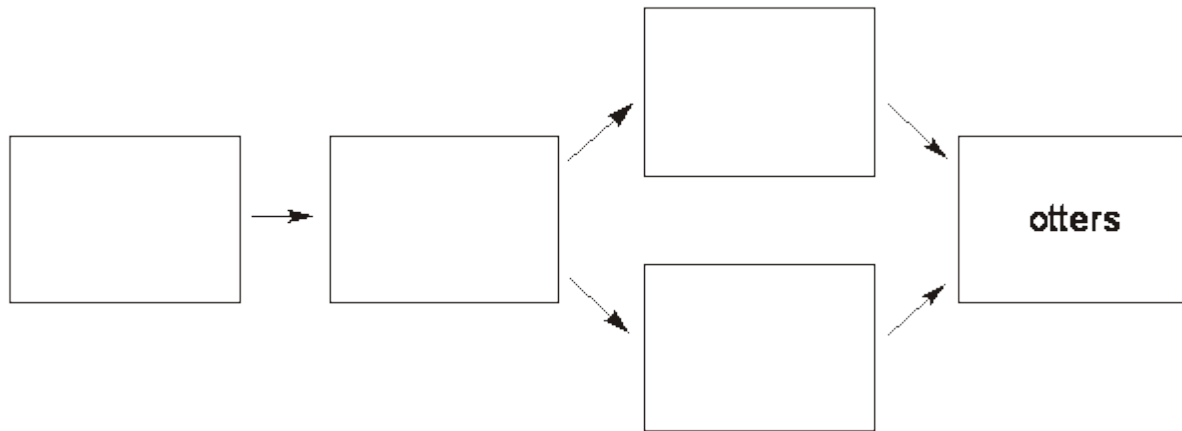
1 mark

(e) The information below describes what some animals eat.

- Insects eat plants.
- Birds and fish eat insects.
- Otters eat fish and birds.

Complete the food web using this information.

One box has been done for you.



2 marks

(f) In the 1960s, the number of otters in England decreased.
To increase otter numbers, scientists released otters in pairs (one male and one female).

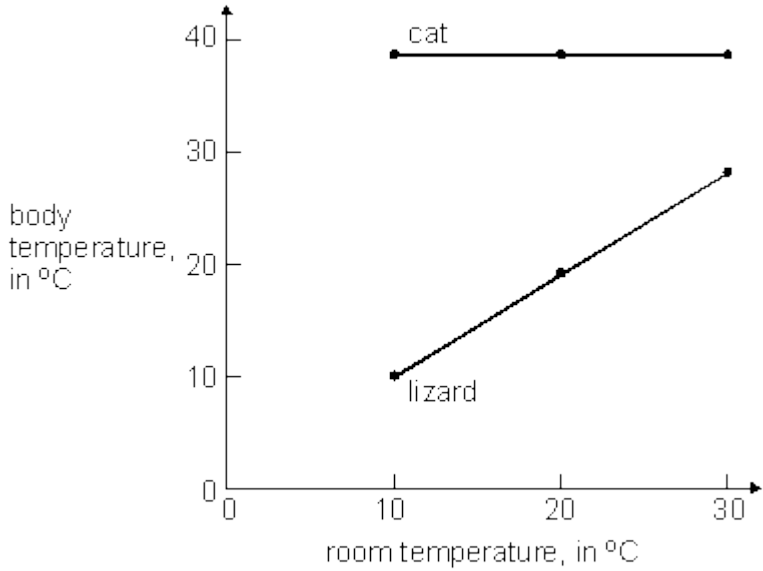
Why were the otters released in pairs?

.....
.....

1 mark
maximum 8 marks

4.

A vet measured the body temperatures of a cat and a lizard at different room temperatures. She drew two graphs from her results.



(a) The temperature of the room rises. What happens to the body temperatures of the lizard and the cat?

(i) lizard

.....

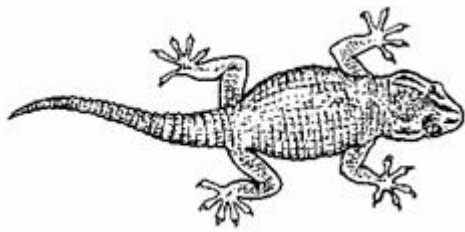
1 mark

(ii) cat

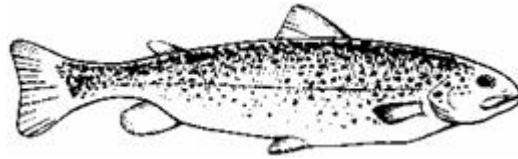
.....

1 mark

(b) Each of the drawings below shows an animal from a different group.



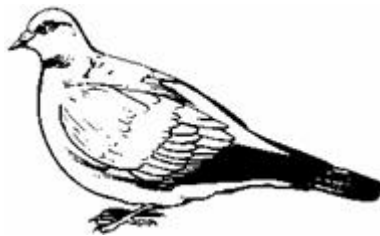
lizard
(reptile)



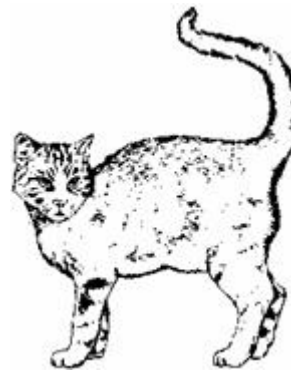
trout
(fish)



frog
(amphibian)



pigeon
(bird)



cat
(mammal)

(i) The cat's fur traps warm air next to its body. In the drawings above, which other animal can trap warm air next to its body?

.....

1 mark

(ii) The cat is a mammal. Its body is covered with fur.

Give one other fact about cats which shows they are mammals.

.....

.....

1 mark

(c) The five groups of vertebrates are:

fish amphibians reptiles birds mammals

(i) Which **two** groups have bodies covered with scales?

- 1
- 2

2 marks

(ii) Which **two** groups lay eggs in water?

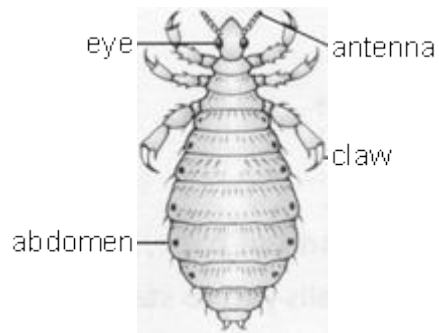
- 1
- 2

2 marks

Maximum 8 marks

5. Head lice are insects which cling onto a person's hair.

(a) The drawing below shows a head louse.



20 x actual size

Which part, labelled on the drawing, does the head louse use to cling onto a hair?

.....

1 mark

(b) Head lice lay eggs and stick them to hairs. Each egg has an egg case around it.



human hair
case with head louse egg inside



human hair
empty egg case

20 x actual size

(i) Why must the egg cases be stuck firmly to the hairs?

.....
.....

1 mark

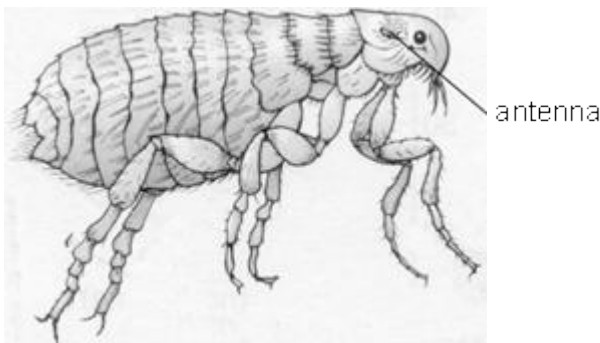
(ii) Special shampoos kill head lice after they hatch out.
Why is it difficult to kill head lice before they hatch out?

.....
.....

1 mark

(c) Cat fleas are insects that live on the skin of a cat and suck the cat's blood.

The drawing below shows a cat flea.



20 x actual size

Draw a line from each fact about the cat flea to the way it helps the flea to survive.
 Draw only **three** lines.

fact about the cat flea

way it helps the flea to survive

- | | | | |
|-------------------------|---|---|--|
| | | ● | so that it can suck a cat's blood |
| It has long legs. | ● | ● | so that it can jump from one cat to another |
| It has a narrow body. | ● | ● | so that it can move easily through a cat's fur |
| It has a pointed mouth. | ● | ● | so that it can keep warm |

3 marks

- (d) Many insects have parts of the body which cat fleas do **not** have.
 What are these parts called?

.....

1 mark
 Maximum 7 marks

6.

Each of the animals in the drawings below belongs to a different group.

- (a) On the line beneath each drawing, write the name of the group the animal belongs to.
 Choose names from the list below.

amphibians crustaceans insects mammals molluscs reptiles



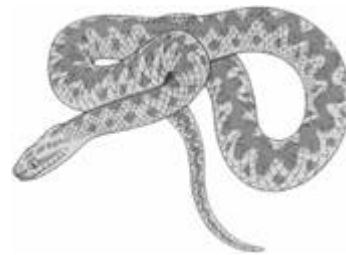
.....
 A



.....
 B



.....
C



.....
D

4 marks

(b) Which of the animals drawn above are invertebrates? Give the correct letters.

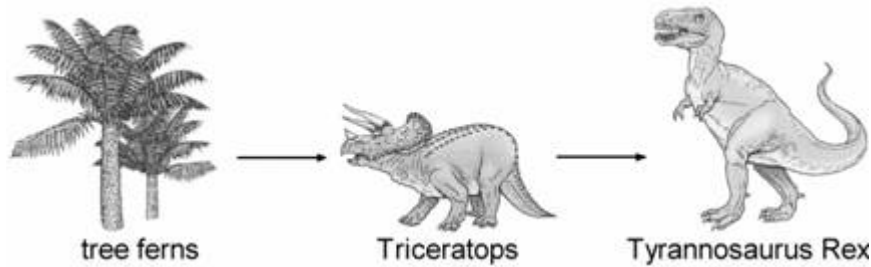
..... and

2 marks

Maximum 6 marks

7.

The drawing shows a food chain including plants called tree ferns, and two dinosaurs. They lived on Earth millions of years ago.



(a) The list below shows words which describe living things in a food chain.

herbivore predator prey producer

(i) Which word in the list above describes the tree fern?

.....

1 mark

(ii) From the list above, give **one** word that can describe Tyrannosaurus rex.

.....

1 mark

(iii) From the list above, give **one** word that can describe Triceratops.

.....

1 mark

- (b) Some scientists think that a large rock from space hit the Earth about 65 million years ago. A thick layer of dust stayed in the air for a long time and blocked out the sunlight.

This would cause a decrease in the number of tree ferns.
Give **one** way the decrease in tree ferns would affect the Triceratops.

.....
.....

1 mark

- (c) Tyrannosaurus rex had thick scales covering its body.
Which group did it belong to?
Tick the correct box.

amphibians	<input type="checkbox"/>	fish	<input type="checkbox"/>
reptiles	<input type="checkbox"/>	mammals	<input type="checkbox"/>

1 mark
Maximum 5 marks

- 8.** The drawings show six living things.
They spend all or part of the time in water.



tadpole
A



trout
B



duck
C



crocodile
D



water vole
E



frog
F

not to scale

Look at the drawings.

- (a) (i) Give the letter of **one** living thing that uses gills to take in oxygen.

.....

1 mark

(ii) Give the letter of **one** living thing that is covered in scales.

.....

1 mark

(b) Use a word from the list below to fill the gap in the sentence.

lungs legs eyes backbones

The trout, duck, crocodile, water vole and frog are all called vertebrates because they have

1 mark

(c) The trout spends all of its time in water.

Give **one** way the trout is suited for moving in water.

.....

.....

1 mark

(d) Draw a line from each animal below to the group it belongs to.
Draw only **three** lines.

animal

group

frog

reptiles

crocodile

mammals

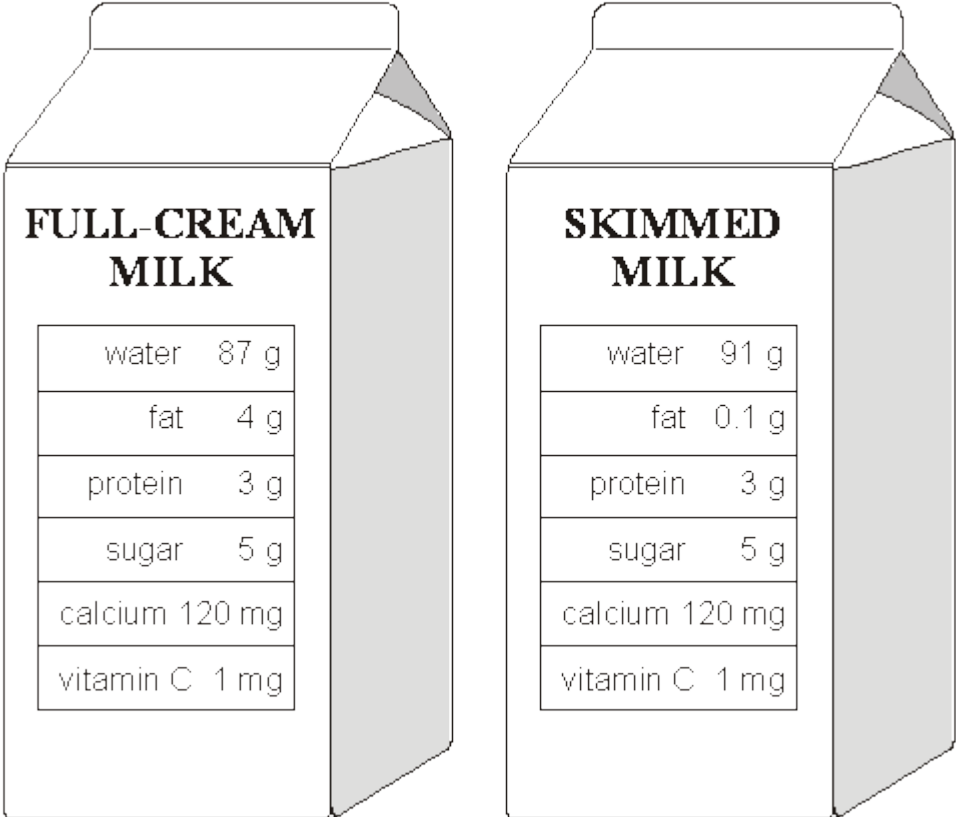
water vole

amphibians

2 marks
maximum 6 marks

9.

The drawings show the amounts of different substances in 100 g of full-cream milk and 100 g of skimmed milk.



(a) Use the information in the drawings to complete the sentence.

When skimmed milk is made from full-cream milk, most of the
..... is taken out.

1 mark

(b) (i) Look at the drawings.
Which substance in milk do we need for strong bones and teeth?

.....

1 mark

(ii) How are substances carried around the body?

.....

1 mark

- (c) (i) Which animals produce milk to feed their young?
Tick the correct box.

amphibians	<input type="checkbox"/>	birds	<input type="checkbox"/>
mammals	<input type="checkbox"/>	reptiles	<input type="checkbox"/>

1 mark

- (ii) A baby fed on its mother's milk gets fewer infections.
What is the reason for this?
Tick the correct box.

The milk contains antibodies.	<input type="checkbox"/>
The milk contains water.	<input type="checkbox"/>
The milk is at body temperature.	<input type="checkbox"/>
The milk is a liquid.	<input type="checkbox"/>

1 mark
maximum 5 marks

10.

- (a) The drawing below shows a fish.



Look at the drawing of a fish.

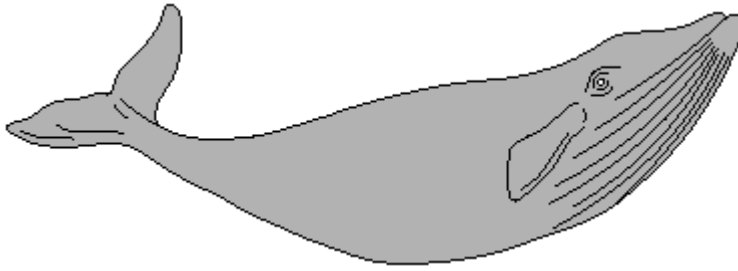
Describe **two** ways in which a fish is suited to swimming.

1

2

2 marks

(b) The drawing below shows a blue whale.



not to scale

A long time ago people thought that the blue whale was a fish. Now we know that the blue whale is a mammal.

Give **one** way mammals are different from fish.

.....

1 mark

(c) A hundred years ago there were 350 000 blue whales.
Now there are only about 10 000 blue whales.
Suggest why the blue whale population has decreased.

.....

.....

1 mark

(d) The blue whale is now a protected species. Scientists catch and tag the whales with a transmitter. Satellites can be used to track the tagged whales.



- (i) What information about whales can scientists be certain to get from a satellite tracking system?

Tick the correct box.

what food they eat

how often they give birth

where they travel

the sex of the whale

1 mark

- (ii) Give **one** advantage of using a satellite tracking system to track whales.

.....

.....

1 mark
maximum 6 marks