



KS3 Science

Classification and Keys

Mark Scheme

Time available: 40 minutes

Marks available: 62 marks

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Mark schemes

1.

- (a) (i) • blackbird *and* robin
both answers are required for the mark answers can be in either order
1 (L3)
- (ii) • 2
accept 'blue tit and sparrow'
1 (L3)
- (iii) • seeds
1 (L3)
- (iv) • robin
1 (L3)
- (b) • feathers
accept 'down'
'fat' is insufficient
1 (L3)
- (c) any **one** from
- to feed their young
accept 'they are more active'
'it needs more energy' is insufficient
'they have babies' is insufficient
'to (help them) reproduce' is insufficient
do **not** accept 'to feed the eggs'
 - to produce eggs
accept 'to make eggs' **or** 'collect nesting materials'
accept 'to keep eggs warm'
accept 'to attract mates'
do **not** accept 'there is less food in winter'
do **not** accept an answer indicating that birds are born
- 1 (L4)

[6]

2.

- (a) (i) • they decreased **or** went down

1 (L3)

any **one** from

- more were eaten
accept 'more were killed'
- the mink ate them
accept 'some died'
*do **not** accept 'they all died'*
- more animals to eat them

1 (L4)

- (ii) any **one** from

- they decreased **or** went down
accept 'there were fewer of them'
- they had less food **or** rabbits
accept 'they had no food'
- the mink ate their food
*accept 'they had to share their food **or** rabbits'*

1 (L4)

- (b) prey

1 (L4)

- (c) (i) any **one** from

- fox
- snake
- badger
- bird of prey
accept a named bird of prey such as 'owl' or 'hawk' or 'eagle'
accept 'cat'

1 (L3)

- (ii) any **two** from
- different climate
 - disease
 - not enough food
*accept 'no food' or 'they starved
or 'competition for food'
references to old age are insufficient*
 - shot **or** run over **or** trapped **or** poisoned
accept 'people killed them'
 - injury due to fighting
 - different habitat

2 (L4)

(d) any **one** from

- they have fur **or** hair
'they are warm-blooded' is insufficient
- they have external ears
*accept 'they give birth to live young'
accept 'they feed their young on milk'*

1 (L4)

[8]

3.

(a) (i) vertebrates
*do **not** accept 'vertebrae'*

1 (L5)

(ii) reptiles

1 (L5)

(b) any **one** from

- so that it can bend
- to allow movement

1 (L5)

(c) any **one** from

- to stop the bones rubbing together
accept 'it reduces friction'
- to stop bones getting worn down
- to cushion the bones
accept 'it can be squashed'
accept 'it absorbs shock'

1 (L5)

(d) *the biceps contracts*
the triceps relaxes

both answers are required for the mark

1 (L6)

[5]

4.

(a) vertebrates

accept 'animals with backbones'
do not accept 'warm blooded'

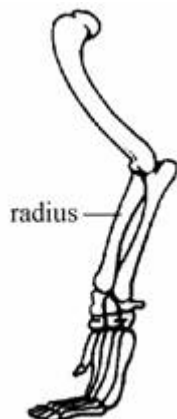
1 (L5)

(b) (i)



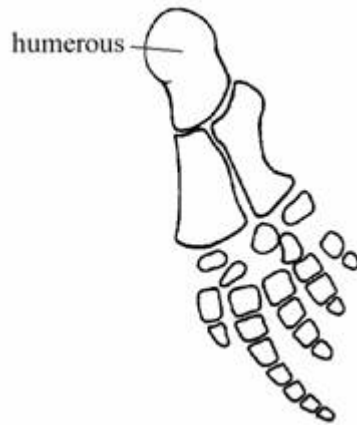
1 (L5)

(ii)



1 (L5)

(iii)



award one mark for each correct label

1 (L5)

(c) any **one** from

- paddle shaped
accept 'large surface'
accept 'it is thick'
do not accept 'it is big' or 'it is strong'
do not accept 'it can paddle in water'
- fin-like
accept 'it is a big fin'
- wide bones
accept 'big bones'
- streamlined
'it is flexible' is insufficient'

1 (L6)

(d) they are light

accept 'they make the bird lighter'

1 (L5)

[6]

5.

(a) E

accept 'fish'

1

(b) B or D or H

accept 'flower' or 'tree' or 'grass'

1

(c) A or C or F or G

accept 'bird' or 'boy' or 'frog' or 'snake'

1

(d) answers may be in either order

E

accept 'fish'

1

F

accept 'frog'

1

(e) answers may be in either order

E

accept 'fish'

1

G

accept 'snake'

1

[7]

6.

(a) 2

1 (L3)

(b) 1

1 (L3)

(c) 4

1 (L3)

(d) 3

1 (L3)

[4]

7.

(a) All vertebrates have a backbone

if more than one box is ticked, award no mark

1 (L3)

(b) (i) it had fur **or** hair

accept 'it has ears on the outside of its body'

*do **not** accept 'it has a coat'*

1 (L3)

- (ii) any **one** from
- they produce milk to feed the young
accept 'they suckle' or 'they feed ' their young with milk
 - they give birth to live young
*accept 'they give birth' or 'they do **not** lay eggs'*
 - they have mammary glands
accept 'they have teats'
accept 'they have fur' or 'they have ears on the outside of their bodies' if not given as the answer to part (b) (i)
*do **not** accept 'they are warm blooded'*
- 1 (L3)
- (c) (i) amphibians
- 1 (L3)
- (ii) it has strong **or** big **or** long legs
- 1 (L3)
- (iii) any **one** from
- it has webbed feet
accept 'it has flippers' or 'it has big feet'
 - it has strong back legs
accept 'it is smooth skinned' or 'it is streamlined'
*do **not** accept 'it has paddles'*
- 1 (L3)
- (d) any **one** from
- the eggs do not have a shell
accept 'they only have jelly around them'
 - they would dry out on land
accept 'to keep the jelly wet'
 - they are fertilised in water
 - tadpoles can live only in water
accept 'tadpoles have gills'
*do **not** accept 'tadpoles hatch from the eggs'*
or 'tadpoles need water' or 'so tadpoles can live'
*do **not** accept 'to protect them from predators'*
- 1 (L5)

[7]

8.	letter of spider	name of spider		
	A	Orb Weaving Spider <i>accept 'orb weaving'</i>		1 (L4)
	B	Jumping Spider <i>accept 'jumping'</i>		1 (L4)
	C	Wolf Spider <i>accept 'wolf'</i>		1 (L4)
	D	House Spider <i>accept 'house'</i>		1 (L4)
				[4]

9.	(a)	(i)	mayfly nymph <i>accept 'mayfly' or 'nymph'</i>	1 (L4)	
		(ii)	water beetle <i>accept beetle</i>	1 (L4)	
		(iii)	lymnaea	1 (L4)	
	(b)	(i)	E <i>if more than one letter is given award no mark</i> <i>accept 'tubifex'</i>	1 (L4)	
		(ii)	A <i>accept 'mayfly nymph'</i>	1 (L4)	
			B <i>accept 'water beetle'</i> <i>answers may be in either order</i>	1 (L4)	[6]

10.

(a) (i) seal

1 (L3)

(ii) any **one** from

- musk ox
- seal

1 (L3)

(iii) hedgehog

1 (L3)

(b) Female mammals produce milk to feed their young. ✓

1 (L3)

Young mammals develop inside their mother's body. ✓

1 (L3)

Mammals have hair on their bodies. ✓

1 (L3)

*if more than three boxes are ticked, deduct
one mark for each incorrectly ticked box
minimum mark zero*

[6]

11.

A Evernia

accept spelling errors

1

C Usnea

both words required

1

D Parmelia saxatillis

accept 'P saxatillis

1

[3]