



Food, Digestion and Respiration Year 8 Mini Test Answers



38 minutes



59 marks

- M1.** (a) (i) one is more active
*accept 'one does sport **or** plays football'*
accept 'they have different metabolic rates'
*accept 'one works harder **or** does more work'* 1 (L5)
- (ii) carbohydrates
answers may be in either order
accept a named carbohydrate,
*eg 'sugar' **or** 'glucose' **or** 'starch'* 1 (L5)
- fats 1 (L5)
- (b) (i) 300 1 (L5)
- (ii) any **one** from
- a boy's bones **or** teeth are still growing
*accept '15 year-old male is growing **or** still developing'*
 - by 30 the bones have already developed
accept '30 year-old male has stopped growing' 1 (L5)
- (c) any **one** from
- a pregnant female supplies the baby with protein
accept 'she supplies the baby'
 - a pregnant female needs protein for herself and the baby
accept 'she needs it for herself and the baby'
 - the baby needs protein 1 (L6)
- (d) any **one** from
- a 15 year-old female menstruates
 - a 15 year-old female has periods 1 (L6)

[7]

M2. (a) answers should show an understanding that the bricklayer does physical work

more active

*accept 'uses up more energy'
or 'lifts bricks all day' or 'does more work'
do **not** accept 'works harder' or 'has a tougher job'
or 'does hard work'*

1 (L5)

(b) answers should refer to bones and their growth

calcium is needed for bone

accept 'it is needed for teeth'

1 (L5)

the 15-year olds are still growing

accept 'the adults have stopped growing'

1 (L5)

(c) any **one from**

- girls menstruate

accept 'girls have periods'

- to replace blood lost by menstruation

*do **not** accept 'iron is needed to produce red blood cells'*

*do **not** accept 'growth spurts'*

1 (L5)

(d) carrot

1 (L5)

milk

1 (L5)

chicken

1 (L5)

[7]

##

(a) • (37 °C is) body temperature

*accept 'so the saliva **or** enzymes would work'
accept 'it is a good **or** optimum temperature for digestion'*

'to make it a fair test' is insufficient

'so they are all the same' is insufficient

1 (L5)

(b) (i) • the starch is broken down **or digested**

'there is a reaction between starch and saliva' is insufficient

1 (L6)

(ii) any **one** from

- starch could not pass through the bag
*accept 'starch could not get through the holes'
'the bag is semi-permeable' is insufficient*
- starch is too big
'the bag holds it in' is insufficient

1 (L6)

(c) • for a control ✓

if more than one box is ticked, award no mark

1 (L6)

(d) (i) • P

if more than one letter is given, award no mark

1 (L6)

(ii) • R

if more than one letter is given, award no mark

1 (L6)

(e) • enzymes

accept 'amylase' or 'carbohydrase'

1 (L6)

(f) any **one** from

- sweeter **or** sugary
accept 'sugar' or 'sweet'
- it tastes of sugar (L6)

1

[8]

M4. (a) (i) D

1 (L3)

(ii) E

1 (L3)

(iii) any **one** from

- blood
accept 'plasma'
- blood vessels
*accept a named blood vessel
'accept 'arteries'; 'veins'
a mark should be awarded for 'red or white blood cells'
as knowledge of the function of blood cells is not expected
at this level the mark is awarded for the reference to blood*

1 (L4)

- (b) to provide energy ✓
if more than one box is ticked, award no mark 1 (L3)
- (c) (i) Clare
accept 'lemonade and jam or doughnut' 1 (L3)
- (ii) Nadia
accept 'cheeseburger and chips' or 'burger and chips' 1 (L3)
- (iii) any **one** from
- it causes heart disease
accept 'it is bad for your heart'
 - it could give you a heart attack
accept 'it might give you a stroke'
 - it clogs your arteries **or** blood vessels
accept 'it makes you fat'
accept 'it is bad for the liver'
- 1 (L3)
- [7]

- M5.** (a) any **one** from
- to keep the temperature constant
accept 'to keep them at the correct temperature'
*do **not** accept 'to keep them at body temperature'*
 - so that the experiment was not affected by a change in temperature in the room
 - to control the temperature **or** a variable
- 1
- (b) any **one** from
- the starch had been digested **or** broken down **or** used up
 - there was no starch left
- 1
- (c) any **one** from
- it doubled the speed
accept 'it made it quicker' or 'it increased the speed'
 - it halved the time taken
accept 'it takes less time'
- 1

(d) any **one** from

- use the same amount of mixture **or** the same amount of enzyme and starch
accept 'use the same size drops'
- stir the mixture **or** stir the enzyme and starch
*accept 'use the same concentration of enzyme
or starch or amylase'*
- use the same type of mixture
*accept 'use the same concentration of enzyme
or starch or amylase'*

1

(e) (i) minerals and vitamins

*answers may be in either order
both substances are required for the mark*

1

(ii) fibre

1

[6]

M6. (a) any **two** from

- heart
- lungs
- windpipe or trachea
- oesophagus or gullet
*accept 'blood vessels' or 'arteries' or 'veins'
do not accept 'bronchiole'*

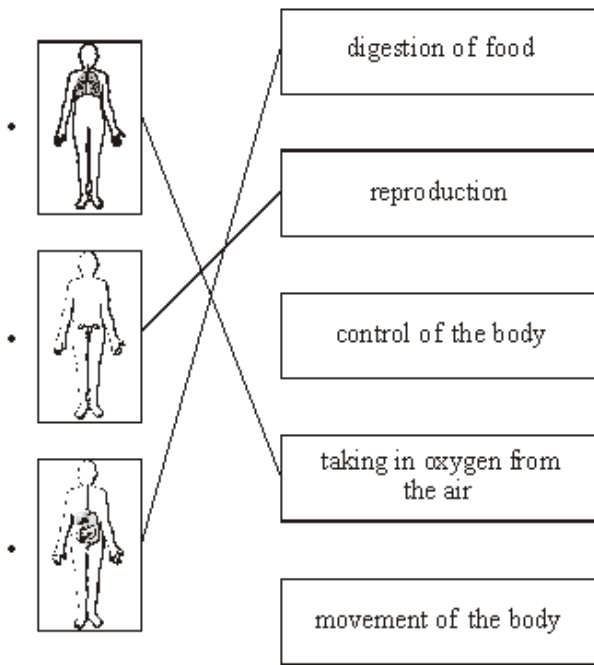
2 (L3)

(b) any **one** from

- so the lungs can expand **or** get bigger
- so we can breathe
- so we can take in air **or** oxygen
*accept 'so the pressure drops'
references to growth are insufficient*

1 (L4)

(c)



If more than one line is drawn from any organ system award **no** credit for that organ system

3 (L3)

[6]

M7. (a) (i) P

1 (L5)

(ii) S

1 (L5)

(b) (i) oxygen

1 (L5)

(ii) carbon dioxide

1 (L6)

(c) so that oxygen **or** carbon dioxide **or** gases can pass through quickly **or** easily

do **not** accept 'so air can pass through easily'
do **not** accept 'so that oxygen can pass through'
accept 'so they can expand easily'

1 (L6)

(d) any **one** from

- so that a lot of oxygen can be absorbed **or** taken in
*accept 'so that enough oxygen **or** carbon dioxide
or gas can pass through'*
- the body needs a lot of oxygen
- so that a lot of carbon dioxide can be removed
accept 'so that gas can pass through quickly'

1 (L6)

[6]

M8. (a) (i) 500

1 (L5)

(ii) more carbon dioxide

1 (L6)

more water vapour

1 (L6)

less oxygen

1 (L6)

answer may be in any order

(b) (i) trachea **or** wind pipe

1 (L5)

alveolus

*accept 'alveoli' **or** 'air sac'*

answers must be in the correct order

1 (L5)

(ii) any **one** from

- to support the trachea
accept 'to support it'
- to keep the trachea open
- to prevent the trachea from collapsing
*accept 'to strengthen the trachea' **or** 'to make it strong'
do **not** accept 'to protect the windpipe'*

1 (L6)

[7]

M9. (a) any **three** from

- energy is released more quickly
accept 'more energy is needed'
'the muscles work harder' is insufficient
- cells respire more quickly
accept 'respiration is quicker'
*accept 'muscles **or** they respire more quickly'*
'blood contains oxygen' is insufficient
- glucose is used up **or** supplied more quickly
*accept 'more glucose is used **or** needed'*
- oxygen is used up **or** supplied more quickly
*accept 'more oxygen is used **or** needed'*
- carbon dioxide **or** waste is produced **or** removed more quickly
*accept 'more carbon dioxide is produced **or** removed'*
- water is removed more quickly
*accept 'more water is produced **or** removed'*
- blood transports oxygen **or** glucose **or** carbon dioxide **or** waste
*accept, for **two marks**, 'blood transports more oxygen' **or** 'blood carries carbon dioxide more quickly' as they cover the fourth **or** fifth and seventh marking points*
- heat is produced **or** removed more quickly
*accept 'more heat is produced **or** removed'*

3 (L7)

(b) any **one** from

- less food is absorbed
'less blood gets to the digestive system' is insufficient
- the digestive system slows down
accept 'less food is digested'
*accept 'it may cause a stitch **or** cramp'*
accept 'less blood goes to the muscles than is needed'
*do **not** accept 'no food can be digested **or** absorbed'*

1 (L7)

(c) any **one** from

- the brain **or** brain cells will die if there is less **or** no oxygen **or** glucose
accept 'otherwise brain damage could occur'
'the brain will die' is insufficient as it does not explain what the brain needs
- the person might faint **or** feel dizzy **or** lack concentration
- the brain needs a regular supply of oxygen **or** glucose

1 (L7)

[5]

