IMMIGRATIO

Iconizer.net

2 3 JUL 2012

#### **Passport to success**

Exchange of materials AQA Biology B3.1

S S ma 0 H- $\vdash$ 1  $\wedge$ 1 <nu Hnt CT D R H-S en Ct þ. nes Ċt S  $\wedge$ <ene  $\wedge$ <glucose rgy<<<conc  $\wedge$ <res μų. en , t В ra at ion<<root Ct ion<<<gr Q  $\wedge$ Q. <<mine μ. ent ^ Ra 6ma ì S. R  $\wedge$ ~~~ × S  $\wedge$  $\wedge$  $\wedge$  $\stackrel{\wedge}{\scriptstyle \wedge}$  $\wedge$  $\wedge$ 



Passport to exam success

# Exchange of materials

AQA Biology B3.1

BIOLOGY3

## Question

organisms Use two import ance  $(\uparrow$ examp 1-0 Ŋ Include H le SD Q ed Ω S Ct H-Ct Ve 0 Q D 0 Tdx; Ct (+ a L ranspo  $\vdash$ Q j. 0 Ъ H (t В when (t Ъ 0 H 0 R Q F Ω tive H--ving

## transport

Command word

Explain •• to <u>⊢</u>-Ъ × 5 0 H-Ъ Ct S 10 Q μ. Ω a L -17

## Connectives

Theref ore -Cons D gu lent  $\mathbf{H}$ K -S 0 becaus D

(+ р Ч Ŋ means ω S Q R Φ S ult,. 1-2 marks: some mention of energy being needed and uptake going against the concentration gradient. Poor SPAG.

ENTRY ENTRY

Ö

000

000

-

3-4 marks: Full description of either root hair cell or small intestines with reference to energy being needed and uptake going against concentration gradient. Some SPAG errors.

5-6 marks: Detailed description of active transport in the small intestines and root hair cells. Almost faultless SPAG.

083A

During active transport molecules are carried across the cell membrane against the <u>concentration gradient</u> from dilute solutions to concentrated solutions. Transport proteins transport the <u>nutrients</u> from the surrounding soil solution into the cell. This requires <u>energy</u> which comes from cellular <u>respiration</u> released by <u>mitochondria</u> (which is why these cells contain a lot of mitochondria). For example, <u>root hair cells</u> absorb mineral ions from the soil. Inside the <u>small intestines</u>, <u>glucose</u> is transferred from the small intestines into the blood stream via active transport.

::

IMMAGRATIO

Iconizer.net

2 3 JUL 2012

#### **Passport to success**

Exchange of materials AQA Biology B3.1a

semi <<Dissolve<<<<concentrated<<<<dilute<<<solution<<<<< permeable<ce ll<membrane<<<<osmosi Ŋ <<<<4marks<<<<  $\wedge$ ~ <<<<<  $\stackrel{\wedge}{\scriptstyle \wedge}$  $\wedge$  $\wedge$  $\wedge$ 



.cal

00

Ŋ

0

sugar

H



The sugar that is added to the fruit salad dissolves in the fruit juice on the surface of the fruit (1). This results in a sugar solution that is more concentrated on the outside of the fruit than inside the fruit (1). As a result water moves out of the fruit through the semi-permeable cell membranes of the fruit cells (1). This process is called osmosis.



IMMIGRATIO



Iconizer.net

2 3 JUL 2012

#### **Passport to success**

Transporting materials AQA Biology B3.2 <<<battery<<<discomfort Save<<extend<<<succes srate<<donor<<<<li>fespan<<<<<recharge</pre> <<<<infection<<<<5marks <<< ~~~~~~~~

one

hand,

on

C he

0 S

the

В

hand,

unlike,

Firstly,

then,

al

0 -

but

-

however

-

on :

the

Connectives

processes

etc

on



# Transporting materials

BIOLOGY3

## Question

0 f Describe treating the heart advantages pa tients Q Ind with dis

advantages

art ifi Cla H hearts

disadvantages Compare: Describe: Command word to give to give commenting advantages an ordere Q both and ac count

AQA Biology B3.2



However, there are many more problems associated with artificial hearts. Firstly, the success rate is very low (1) and many receivers of artificial hearts do not survive for long. The actual device has also got a limited lifespan(1) and needs to be recharged on a regular basis(1). The patient might experience a lot of discomfort from the battery and/or controller (1). Finally, there is an increased risk of infection (1).



IMMIGRATIO



2 3 JUL 2012

**Passport to success** 

Transporting materials AQA Biology B3.2a <<<battery<<<di Save  $\wedge$ <extend  $\wedge$  $\wedge$  $\wedge$ S S uc comfo Ω D S R S CT R . ~ ~ ~ ~ Q Ct Φ  $\wedge$ infect <donor H- $\wedge$ on  $\wedge$  $\wedge$  $\wedge$  $\wedge$  $\wedge$  $\wedge$  $\wedge$  $\mathbf{H}$  $\wedge$ H- $\wedge$ H 5marks D S pan  $\wedge$  $\wedge$  $\wedge$  $\wedge$  $\wedge$ A  $\wedge$  $\wedge$  $\wedge$  $\wedge$  $\wedge$  $\wedge$  $\wedge$ B  $\wedge$  $\wedge$ D Ω ~~~~~ harge<



PERMIT TO

SwGoldson

BELIZE

AIF

0000

Intil

SIA SIA

Phillip

open

....

### (+ ranspirat

S

CT

ream

Ъ

S

Des Command Cri be word •• to цр. Ve Q b 0 R de R D Q. Q Ω Ω ount

## Connectives

Ы μ. R'S stly, (+ hen -Q  $\vdash$ S 0 -Ъ 0 Xt H Hna F K

IMMIGRATIO



2 3 JUL 2012

#### **Passport to success**

Constant internal conditions AQA Biology B3.3

Ъ Toxins R H-Ω D  $\wedge$ R  $\wedge$  $\wedge$ Φ ^ S Ct В  $\wedge$  $\wedge$ H-Ω  $\wedge$ <<<<blood<<pre>c<<<<blood<<pre>pres († 1on<diet<<<re **\_**sure Φ 0.t <<drugs <<<<<clot >>>>>  $\wedge$ <dono  $\wedge$ <u>~</u> Ч J u. R Á Φ  $\wedge$ Ω 6mar (+ ц**і**. on<<< × S  $\wedge$  $\wedge$  $\wedge$  $\stackrel{\wedge}{\scriptstyle \wedge}$  $\wedge$  $\wedge$ 



## Constant internal

conditions

AQA Biology

B3

い

BIOLOGY3

5

exam success

Passport

## Question

A (+ reate Λq person receiving р Ю W1 й. ст th he В kidney Уq ω Sn ki -dney μ. -ng d i S ki ea transplant dne S Φ Ω K 0 di. ů l tment al Q NSA. Ъ Φ p. S

#### OK Compare the two me thod S 0 H († rea

## Command word

disa Compare dvant •• ages ct 0 Q e s 0 H Ω R CT μ. WO 5 0 proc Ct Ъ D D Q Idvan S S D S rt Q Q 0 S ω Б Q.

methods, ...comment H-Ъ Q 0 Ъ bot þ

als Wl 0 -th, и Ч mi lar ke  $(\uparrow$ 0 un • P . H-.ke howeve R but

 $\mathbb{P}$ Connectives Ś

0834 07 SEP 3-4 marks: There is a clear comparison of the two methods including at least one advantage and one disadvantage from the examples given below.

5-6 marks: There is a clear and detailed comparison of the two methods with at least two advantages and disadvantages from the examples given below. Almost faultless SPAG.

1-2 marks: There is a brief

description of both methods

disadvantages or advantages

from the examples given

and at least one

below. Poor SPAG.

The advantages of a kidney transplant are that unlike with dialysis, there is no build-up of toxins in the blood. Furthermore, a kidney transplant will prevent high blood pressure, blood clots, which are more likely in a patient on dialysis, and infections. It is also cheaper in the long run to have a kidney transplant as a patient will need to go hospital on a very regular basis for the dialysis. With a kidney transplant you are also free from other restrictions, such as the restricted diet you are tied to when you are on dialysis. However, it is difficult to find a donor with matching tissue and even if you do, there is still the risk of rejection even though you need to take immunosuppressant drugs on a daily basis which is another disadvantage that you do not have with dialysis.

000

Some SPAG errors.

IMMIGRATIC



2 3 JUL 2012

#### **Passport to success**

Constant internal conditions AQA Biology B3.3a

a11 Glucose<<aminoacid<<minerals <<some<reabsorb<<active transport << osmosis <<<<<<ul><<<<<ul><<<<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<ul><<u <<<<ur> ine Hh. fusion<<<< <<5marks  $\wedge$ 



Уq

the

kidneys

Describe

in

det

Q

μ.

-

how

uri

Ы

D

H-

S

Ъ

roduced

Question

Desc Command word ribe: Тo give an orde Re Q. Q ccount

Ċt 、 next, then -S 0 (+ ha CT -H Hna --K

Firs

Connectives

to exam success AQA Biology Constant internal

B3

3a

BIOLOGY3

conditions

Passport



First, glucose, amino acids, mineral ions, urea and water are removed from the blood and enter the kidney tubules by diffusion along the concentration gradient (1). Blood cells and proteins remain in the blood as they are too large to pass through the cell membrane. Next, all of the glucose(1) and some ions (1) are reabsorbed back into the blood by active transport, some water is reabsorbed by osmosis (1). The remaining water, urea and minerals make up the urine (1).



IMMIGRATIC



2 3 JUL 2012

#### **Passport to success**

Humans and the environment AQA Biology B3.4

Ω  $\wedge$ ramped< <hormones <temper  $\wedge$ (<<di S ature Φ Q S D S  $\wedge$ A  $\wedge$ Ê <<crue .ight  $\wedge$ <antibiotics  $\vdash$ (t A<<<<<od> Ð <<<pre>coprophyla В crowding< Ω  $\wedge$ 6ma (+ μ. Ω В  $\wedge$  $\wedge$ × ~d S  $\wedge$ j-- $\wedge$ Φ  $\wedge$  $\wedge$   $(\uparrow$ 



## Humans and the environment

AQA Biology

**B**3.4

BIOLOGY3

5

exam success Passport

## Question

methods advantag Des farming cribe 0 D S († H Ъ and D anima me d j th F S Ŋ O ggs advantage Q Ind G S Φ D rdx Q μ. S Q Ъ H-0 Ъ Ct H Ъ (t 0 the Ъ D H Q S Ω to Φ LI

### Command word

Exp Des Ĕ Cri ы Ч 5 be •• to to g j. 1 n Ve  $\overline{\mathbf{x}}$ Ъ Ŏµ. Q b Ъ (t 0 S R de 10 В Q D H-Q. Ω Q Q -Ω  $\mathbf{P}$ Ω oun K t

## Connectives

R S D Ct H ore nex -Ct cons -Ct Ъ equent D Ъ ω Ъ P Q K --H S H-0 Ъ Q - $\mathbf{H}$ be K Ca Snl D

Ы (+ (+ he ц. Ч Ъ' S me an S -Q S Q В Φ S G Ē Ct un -<u>ب</u> ke μ.  $\mathbf{x}$ D

of at least one factory farming method and an advantage or disadvantage is explained. Some SPAG errors. 5-6 marks: There is a description of factory farming methods and advantage(s) and disadvantage(s)are explained. Almost faultless

3-4 marks: There is a

Factory farming involves keeping animals, such as hens, calves and pigs, in <u>cramped</u> conditions inside temperature and light controlled pens. The animals are fed growth hormones and are treated with prophylactic antibiotics. Limiting the movement of the animals means that less energy is lost through movement. Controlling the food intake and feeding the animals with growth hormones means that the animals will grow faster and are ready to be slaughtered earlier. However, keeping so many animals close together means that diseases can spread faster and animals are more stressed which really is cruel towards the animals.

000

1-2 marks: A basic description of one factory farming method has been given or one advantage or disadvantage of factory farming has been stated. Poor SPAG .

description



SPAG.

083A

IMMIGRATIC



2 3 JUL 2012

#### **Passport to success**

Humans and the environment AQA Biology B3.4a

Sma Ω on 1 Ct -В ~ 0 ~ D F  $\wedge$  $\wedge$ scape<<<br/>breed<<<stock<<es <ca tch<<<<< income<<<<<<8marks cape<<<quot  $\wedge$ à  $\wedge$ Ś  $\wedge$  $\wedge$  $\wedge$  $\wedge$  $\wedge$  $\wedge$  $\wedge$ <enf  $\wedge$  $\wedge$  $\wedge$  $\wedge$ ~~~ 0 F C D  $\wedge$  $\wedge \wedge$  $\wedge \wedge$ 



# AQA Biology B3.4a BIOLOGY3

Humans and the environment

Question

mesh and prohibi maximum fis Evaluat H Ъ prohi ы С Ŋ (t t L ND 000 D Ω ן ק -ng à S ks († Ъ (t ch 0 C D and ing H H pr P. S pe ne Ъ ц 0 Ct S bable H R H Ъ H-H-Q Ъ S S hi he Oa Ŋ ng. pe Ы (+ rmen D pe breeding C L H Q H (t В н D YI 0 Q cert yea H Ct -ng S imi is 0 a L the J g Ъ round (t Ъ Õ 1-time ng th

S

S

# Command word

0

the

Уе

д К

process, Evaluate •• method, con и С de 0 R († Ω CT Ъ D Ъ RO S and Ω ons 0 H Q

## Connectives

Whereas, however but al though, .

Increasing mesh sizes will allow small fish that are caught in the net to escape (1). This is an advantage as more fish will be able to grow big enough to breed (1) and maintain fish stocks (1).

The same argument applies to prohibiting fishing during the breeding season (1).

Although prohibiting fishing in breeding grounds is trying to ensure that fish are able to breed and therefore maintain fish stocks, there is no guarantee that all fish will remain in the area (1) during the entire breeding season.

Enforcing fishing quotas attempts to maintain fish stocks but is a strategy that is difficult to enforce and control (1).

All of the above strategies have a series impact on fishermen as all controls make it harder (1) for them to get a good catch which is needed to guarantee a good income (1).

00