AQA, OCR, Edexcel

GCSE Science

GCSE Biology

Material Cycling Answers

Name:

M M E

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Total Marks: /26

Q1: Name the group of organisms that break down waste of dead organisms.

A= Decomposers

(1 mark)

Q2: What 2 by-products are produced by bacteria breakdown of organisms.

A= 1 mark to be awarded for each of the following points:

- Carbon dioxide
- Mineral ions

Also accept nitrates

(2 marks)

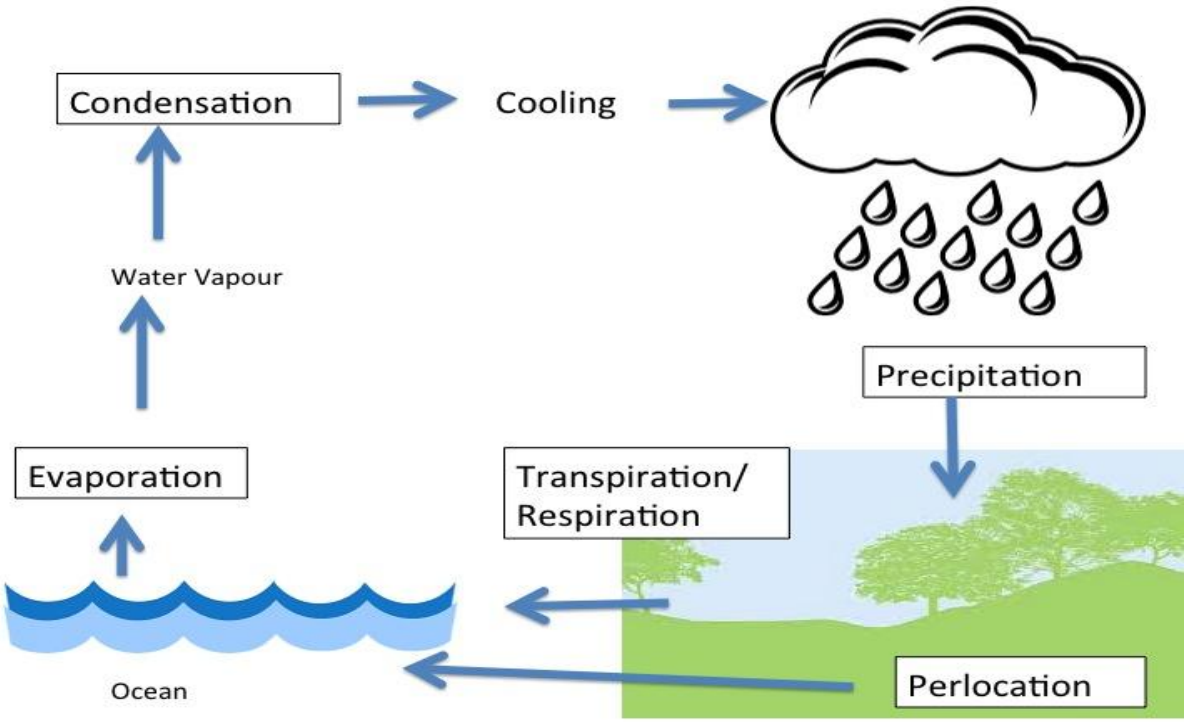
Q3: What would happen if organisms were not recycled?

A= 1 mark for each of the following:

- No resource for ecosystems
- Would have died out

(2 marks)

Q4: Water is vital for all living organisms. Using the figure below fill in the stages of the water cycle.



A= 1 mark for each correct label

(5 marks)

Q5: Give 2 ways mammals release water back into the water cycle.

A= 1 mark for each of the following points:

- Urine
- Sweat

Also accept: Faeces or death

(2 marks)

Q6: What is the carbon cycle?

A= Recycling of carbon through living organisms

(1 mark)

Q7: Give an example of carbon, which can only be accessed though burning.

A= accept any of the following:

- Coal
- Oil
- Gas

(1 mark)

Q8: Give the 3 main stages of the carbon cycle.

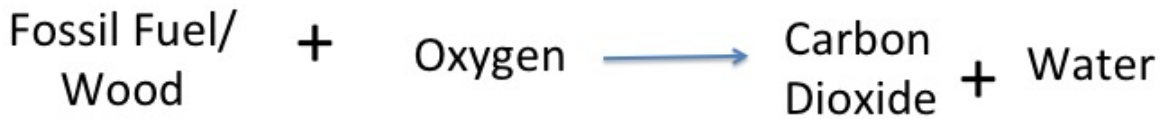
A= 1 mark for each of the following:

- Photosynthesis
- Respiration
- Combustion

(3 marks)

Q9: State the equation for combustion within the carbon cycle.

A= 1 mark for the correct components / 1mark for bi-products



(2 marks)

Q10: Discuss the role of respiration, photosynthesis and combustion within the carbon cycle.

A= Accept 2 points for each role:

Photosynthesis:

- Removes CO_2 from the environment
- Make carbohydrates/ Proteins/ Fats
- Pass carbon onto animals via food chain

Respiration:

- Returns CO_2 to the environment
- Water produced as a waste product
- Provides energy for cells

Combustion:

- Releases locked/carbon stores
- Releases CO_2 back to cycle
- Provides Energy

(6 marks)

Q11: Due to the excess of carbon being released back into the carbon cycle what effect is being seen?

A= Global Warming

(1 mark)