

GCSE Biology A (Gateway)

J247/02 B4-B6 and B7 Foundation (Foundation Tier)

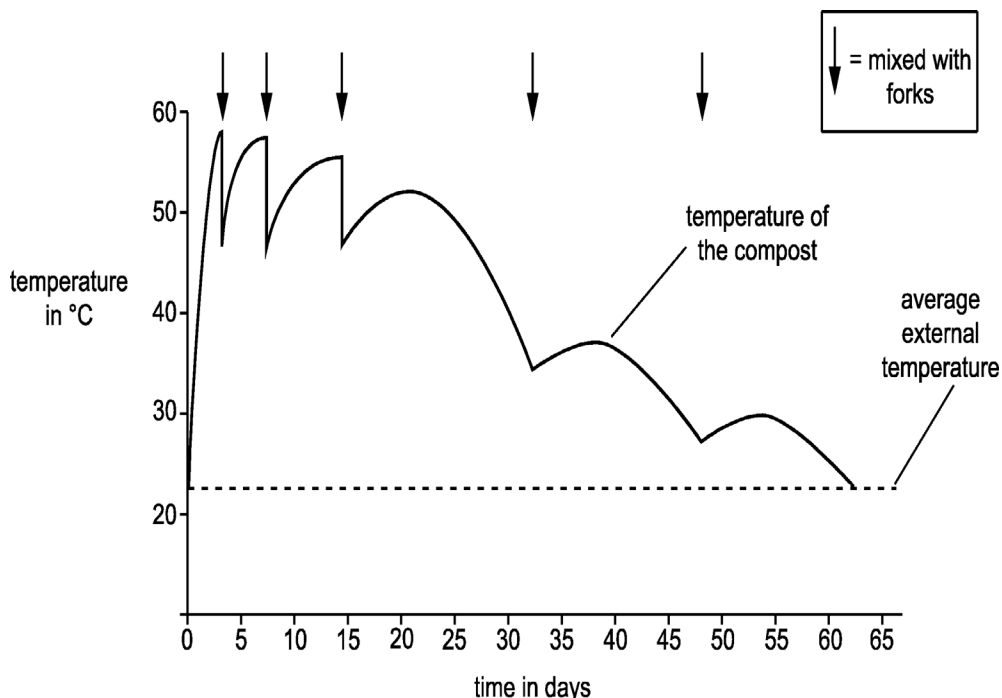
Question Set 10

10

Some students measure the temperature inside a compost heap. They also measure the external temperature.

On five occasions they mixed up the compost heap with garden forks.

The graph shows their results.



- (a) (i) The compost took 63 days to completely decompose.

Explain how the students could tell this from their graph.

[1]

- (ii) The rate of temperature increase is greatest before the compost is mixed for the first time.

Explain how the rate of temperature change can be calculated.

[1]

- (b) Compost decomposes more slowly below 30°C or above 60°C.

Use ideas about enzymes and decomposition to explain why.

[2]

- (c) Use the graph to describe how mixing with a fork helps to provide the best temperature for decomposition.

[2]

Total Marks for Question Set 10: 6

OCR

Oxford Cambridge and RSA

Copyright Information

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website (www.ocr.org.uk) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact The OCR Copyright Team, The Triangle Building, Shaftesbury Road, Cambridge CB2 8EA.

OCR is part of the Cambridge Assessment Group; Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge