

## **GCSE Biology A (Gateway)**

**J247/04 Biology A B4-B6 and B7 (Higher Tier)**

**Question Set: 2**

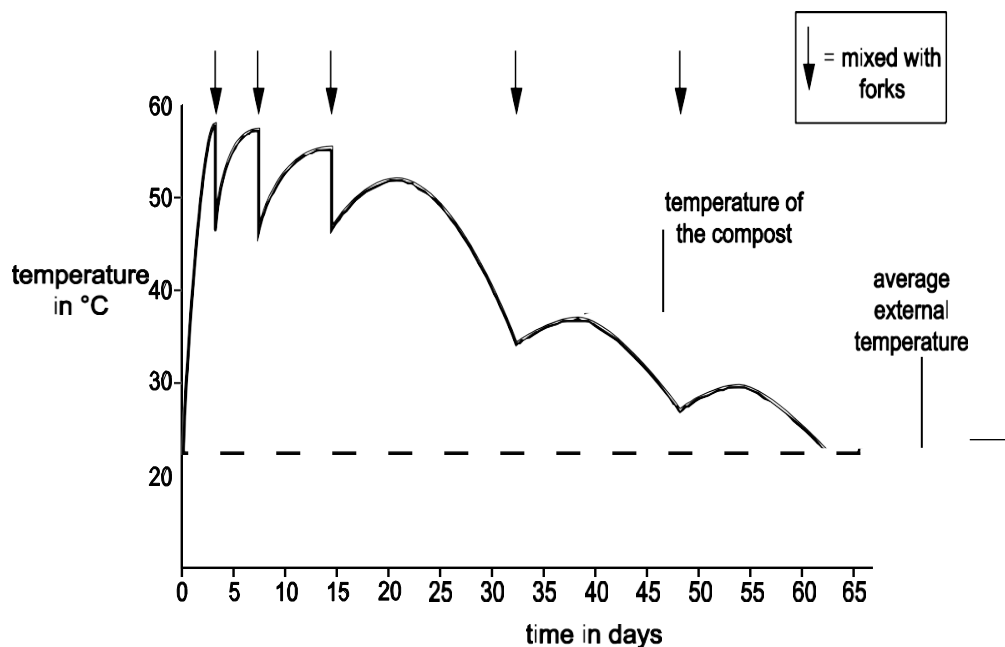
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Some students measured the temperature inside a compost heap.

They also measured 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 above 60°C or below 30°C.

Use ideas about enzymes and decomposition to explain why this is.

[2]

- (c) Use the graph to describe how the forking helps to provide the best temperature for decomposition.

[2]

**Total Marks for Question Set 2: 6**

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