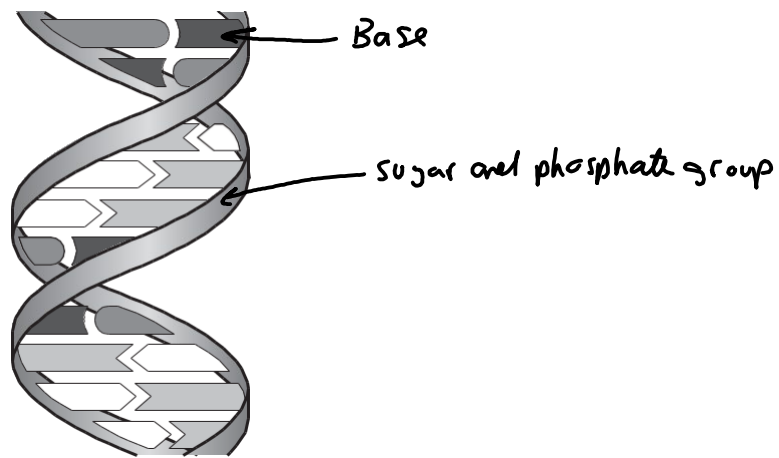


**GCSE Biology B (Twenty First Century Science)**  
**J257/01 Breadth in Biology (Foundation)**

**Question Set 2**

Multiple Choice Questions

1. DNA is a polymer made of nucleotides. A nucleotide is made of a sugar, a phosphate and a base.  
The diagram shows the structure of DNA.



- (a) (i) On the diagram label the location of a base. [1]  
(ii) On the diagram label the location of the sugar and phosphate group. [1]  
(b) DNA has four different bases.

A always pairs with T.  
C always pairs with G.

A scientist is analysing a sample of DNA. She works out that 23% of DNA is made up of the base A.

Which **two** statements about the sample are correct?

Tick (✓) **two** boxes.

- |  |   |                                     |
|--|---|-------------------------------------|
| <u>23% of the sample will be the base T.</u> | ✓ | <input checked="" type="checkbox"/> |
| 23% of the sample will be the base C.        |   | <input type="checkbox"/>            |
| 27% of the sample will be the base T.        |   | <input type="checkbox"/>            |
| <u>27% of the sample will be the base C.</u> | ✓ | <input checked="" type="checkbox"/> |
| 77% of the sample will be the base T.        |   | <input type="checkbox"/>            |

[2]

**Total Marks for Question Set 2: 4**

---

**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](http://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