

AS Level Biology B

H022/01 Foundations of biology

Question Set 4

1 Medical practitioners can measure parameters such as PEF_R and FEV₁ to assess lung function in their patients.

(a) Explain the terms PEF_R and FEV₁

[2]

(b) Table 1 gives details of a 22-year-old male.

Weight (Kg)	Height (cm)	PEFR (dm ³ min ⁻¹)	FEV ₁ (dm ³)
110	175	400	2.9

Table 1

FEV₁ values can be compared to a predicted value calculated using the formula below:

$$FEV_1 = ((4.3 \times \text{height in metres}) - (0.029 \times \text{age in years})) - 2.49$$

Calculate the predicted value of FEV₁ for this male **and** suggest what can be concluded about his health.

Show your working and give your answer to **one** decimal place.

Answer.....dm³

[3]

3

- (c) Expired air resuscitation (EAR) is a first-aid procedure used when a person stops breathing.

When EAR is carried out on a small child the First Aider will cover both the mouth and nose of the patient, rather than just the mouth.

State one **other** way in which the procedure must differ when being carried out on a small child.

[1]

Total Marks for Question Set 4: 6



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