B1 L2 Bacterial cells: Exam questions worksheet

AQA GCSE Combined Science: Trilogy (8464) and Biology (8461)
Biology Paper 1 · Topic B1 Cell biology

Name _____ Class _____

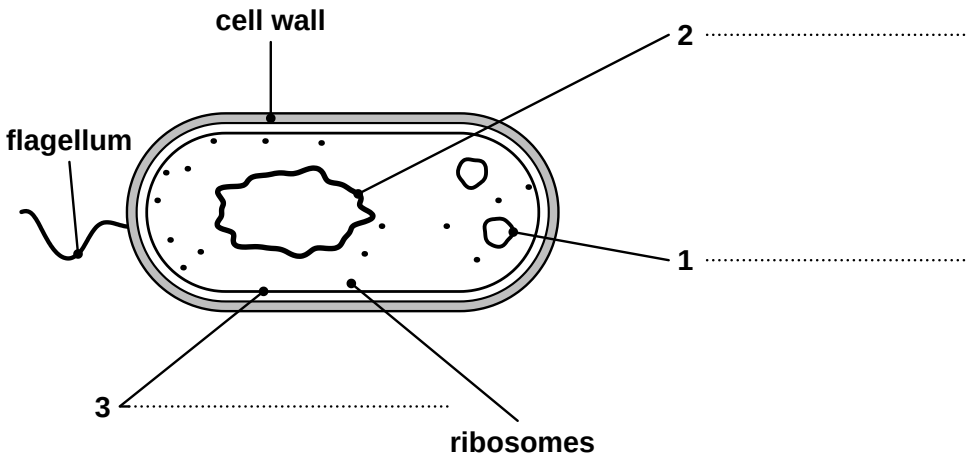
Total: ..... / 20

Instructions
- Answer **all** questions in the spaces provided.
- Use black ink or black ball-point pen.
- The marks for each question are shown in brackets.
- In calculations, show clearly how you work out your answer.
- Time: about 25 minutes.

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0 1 **Figure 1** shows a bacterial cell.

Figure 1



0 1 . 1 **Complete Figure 1**. [3 marks]

Choose answers from the box.

cell membrane	chloroplast	nucleus	plasmid	single loop of DNA

0 1 . 2 What is the function of the flagellum? [1 mark]

Tick (✓) **one** box.

- To make proteins ☐
- To move the bacterium ☐
- To store extra genes ☐
- To strengthen the cell ☐

Do not write outside the box

0 1 . 3 Name **one** structure in **Figure 1** that is also found in an animal cell. [1 mark]

.....

0 2 **Table 1** shows information about two cells.

Table 1

Cell	Does it have a nucleus?	Typical length
bacterium	no	2 µm
onion epidermis cell	yes	0.2 mm

0 2 . 1 Which cell in **Table 1** is prokaryotic? [1 mark]

Give **one** reason from **Table 1** for your answer.

.....

.....

0 2 . 2 1 mm = 1000 µm [1 mark]

Calculate the length of the onion epidermis cell in micrometres (µm).

Length = ... µm

0 2 . 3 **Calculate** how many times longer the onion epidermis cell is than the bacterium. [2 marks]

..... times

0 3 Bacterial cells contain a single loop of DNA. Many bacterial cells also contain plasmids. [2 marks]

Describe two ways plasmids are different from the single loop of DNA.

1

.....

.....

2

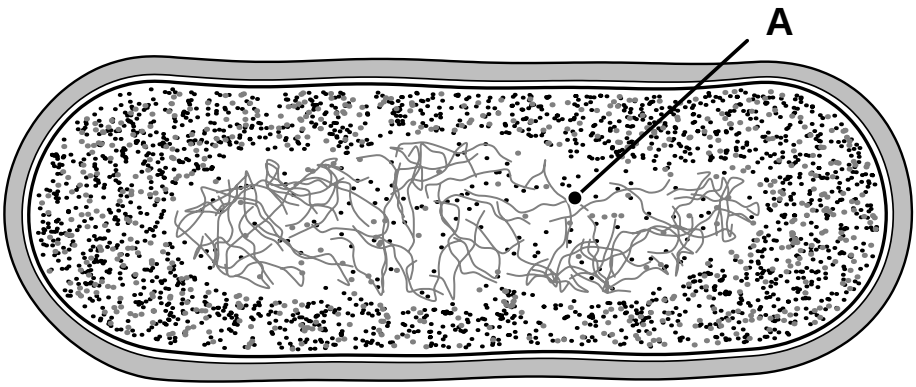
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Do not write outside the box

0 4 **Figure 2** is a drawing made from an electron micrograph of a bacterium.

Figure 2



A student looked at **Figure 2**. The student said: [3 marks]

'This cell has no nucleus, so it has no DNA.'

Explain why the student is wrong.

Use the area labelled **A** in **Figure 2** in your answer.

Do not write outside the box

Turn over for the next question

0 5 Bacterial cells and plant cells both have a cell wall. [6 marks]

Compare the structure of a bacterial cell with the structure of a plant cell.

END OF QUESTIONS

There are no more questions in this paper. Original practice paper © sciencegcse.co.uk – free to use for non-commercial education. Not an AQA paper.

Do not write outside the box