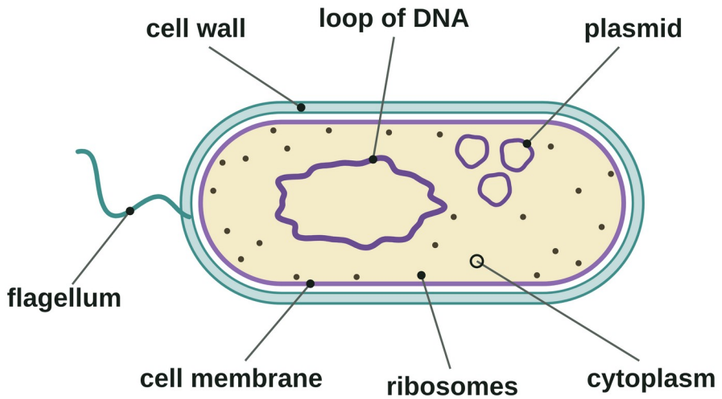
B1 L2 Alternative worksheet: Bacterial cells

Name: _____ Class: _____

Key facts

- A **bacterium** is a living thing made of **one cell**.
- Bacteria are tiny: about **2 µm** long. An animal cell is about 20 µm, so it is **10 times** bigger: **divide**, 20 ÷ 2 = 10. (1 mm = 1000 µm.)
- A bacterial cell has a **cell wall**, a **cell membrane**, **cytoplasm** and **ribosomes**.
- It has **no nucleus**. Its DNA is a single **loop**, free in the cytoplasm.
- Some bacteria have **plasmids**: small rings of DNA.
- Some bacteria have a **flagellum**: a tail used to move.
- The cell wall is **not made of cellulose**.
- No nucleus: **prokaryotic** (bacteria). A nucleus: **eukaryotic** (animal and plant cells).
- Most bacteria are **harmless** or useful. Bacteria are **not viruses**.
- Electron micrographs are black and white: the colours are added.



A bacterial cell (a diagram).

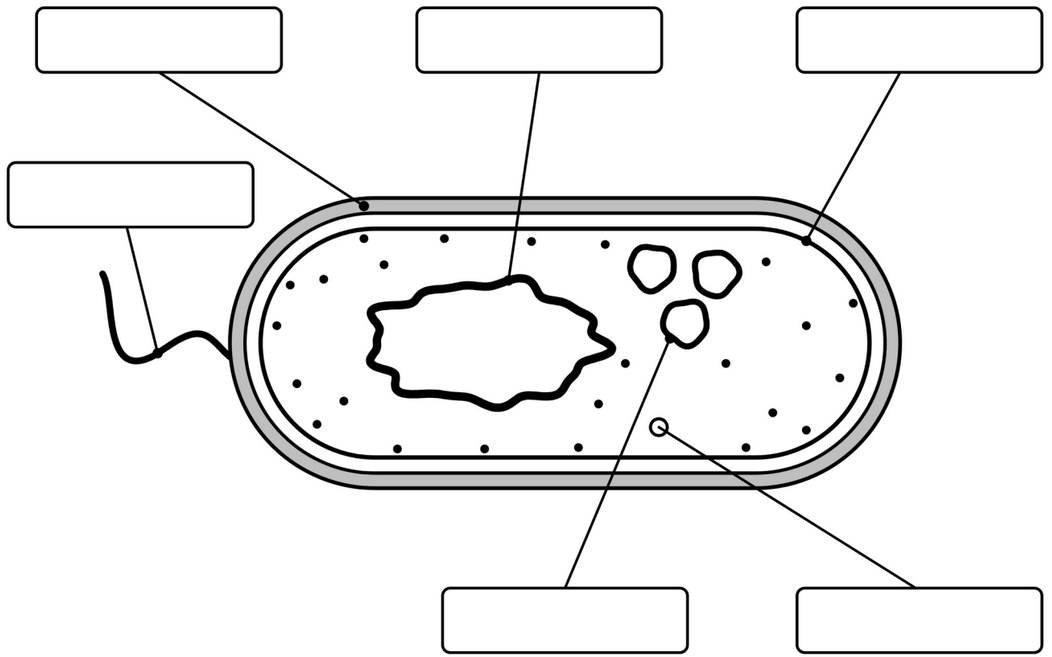
A diagram is simplified. The colours help you tell the parts apart.

A. Label the bacterial cell

Help: online screens 1 and 3 [6]

Write a word from the box in each label box.

cell membrane	**cell wall**	**cytoplasm**
flagellum	**loop of DNA**	**plasmid**



Tip: the cell wall is the outside layer. The cell membrane is just inside it.

B1 L2 Alternative worksheet: Bacterial cells

Name: _____ Class: _____

B. Match the word to its meaning

Help: online screens 1, 3, 6 and 9 [5]

Draw a line from each word to its meaning.

bacterium	●	● where proteins are made
plasmid	●	● a tail used to move
flagellum	●	● describes a cell with no nucleus
ribosome	●	● a living thing made of one cell
prokaryotic	●	● a small ring of DNA

C. Fill the gaps

Help: online screens 3, 4, 6 and 7 [6]

Use the words in the box. Use each word once.

cellulose **loop** **nucleus** **plasmids** **ribosomes** **smaller**

1. A bacterial cell has no _____.
2. Its DNA is a single _____.
3. Some bacteria have small rings of DNA called _____.
4. Proteins are made at the _____.
5. The cell wall of a bacterium is not made of _____.
6. A bacterium is much _____ than an animal cell.

D. Yes or no? Then work it out

Help: online screens 3, 6 and 7 [6]

Does a bacterial cell have it? Tick (✓) Yes or No for each part.

Part	Yes	No
1. nucleus		
2. cell membrane		
3. ribosomes		
4. mitochondria		
5. cell wall		

6. An animal cell is 12 µm across. A bacterium is 3 µm long. How many times bigger is the animal cell?

12 ÷ 3 = _____ times [1]

E. True or false?

Help: online screens 2, 4, 7, 9 and 10 [6]

Tick (✓) True or False for each sentence.

Sentence	True	False
1. Bacteria have DNA.		
2. All bacteria have plasmids.		
3. A bacterium is smaller than an animal cell.		
4. Bacteria are viruses.		
5. The colours in a coloured electron micrograph are real.		
6. Most bacteria are harmful.		