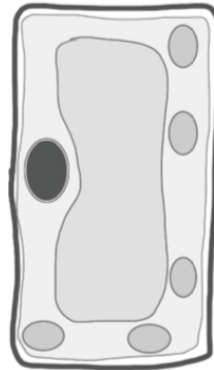


0	1
---	---

Figure 1 shows a plant cell

Figure 1



Plant Cell

0	1	.	1
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- a) Name the part of the plant cell that controls the passage of substances into and out of the cell.

Cell membrane

- b) Contains cell sap

vacuole

- c) contains a pigment that traps light for photosynthesis

chloroplast

[3 marks]

0	1	.	2
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The length of 3 plant cells like the one in Figure 1 was measured using a microscope. Cell 1 measured 71 micrometers; cell 2 measured 78 micrometers and cell 3 measured 68 micrometers. Calculate the average length of these cells. Show clearly how you worked this out

[2 marks]

$$71 + 78 + 68 = 217$$

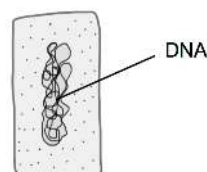
$$217/3 = 72.3$$

Average diameter = 72 or 72.3 micrometers

0	1		3
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Figure 2 shows a bacterial cell which is an example of a prokaryotic cell

Figure 2



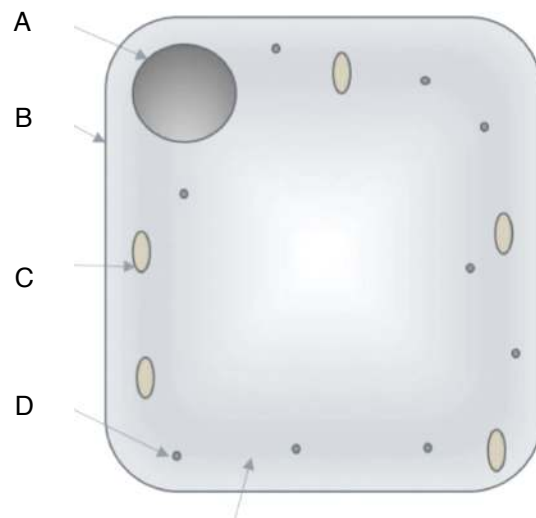
Bacterial Cell

Describe 2 ways how bacterial cells are different from eukaryotic cells

lack a nucleus [1]; lack mitochondria [1]; lack chloroplasts [1] bacteria are smaller [1] have circular DNA [1]; have plasmids (while eukaryotic cells do not) [1]

[2 marks]

0 1 . 4 **Figure 3** shows an animal cell



**TOP TIP :** All cells have a cell membrane and its always the inner line/the line around the cytoplasm

For each of the letters below, name the structure in Figure 3 and describe its function in the cell

A Nucleus \_\_\_\_\_

\_\_\_\_\_ contains the DNA/chromosomes/genes/genetic information \_\_\_\_\_

B Cell membrane \_\_\_\_\_

\_\_\_\_\_ semi-permeable/controls what enters and exits the cell \_\_\_\_\_

C Mitochondria \_\_\_\_\_

\_\_\_\_\_ where aerobic respiration occurs/transfers energy to the cell \_\_\_\_\_

D ribosome \_\_\_\_\_

\_\_\_\_\_ site of protein synthesis \_\_\_\_\_

[4 Marks]