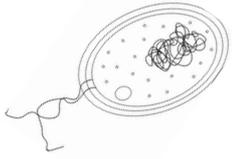


# Prokaryotic and eukaryotic cells

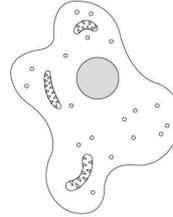


## Task 1: Define prokaryotic and eukaryotic cells

a) Complete the label to say if the cell is eukaryotic or prokaryotic.



\_\_\_\_\_



\_\_\_\_\_

b) Fill in the missing words below.

\_\_\_\_\_ cells **do not** have a membrane bound \_\_\_\_\_.

\_\_\_\_\_ cell **do** have a membrane bound \_\_\_\_\_.

*prokaryotic*

*nucleus*

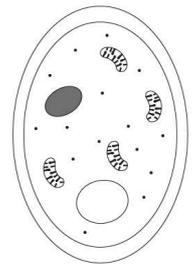
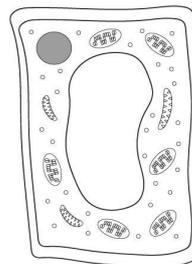
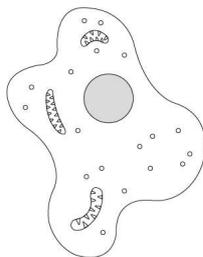
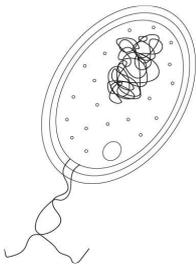
*eukaryotic*

## Task 2: Identifying examples of prokaryotic and eukaryotic cells

a) Complete the table to give examples of prokaryotic and eukaryotic organisms.

Eukaryotic	Prokaryotic

b) Name the cell in each diagram.



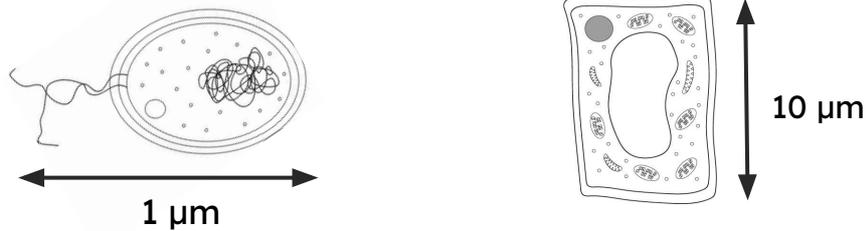


### Task 3: Comparing prokaryotic and eukaryotic cells

a) Complete the table to compare the features of prokaryotic and eukaryotic cells.

Feature	Prokaryotic	Eukaryotic
Membrane bound subcellular structures		
DNA		
Size		
Cell division		
Cell walls		

b) Use these diagrams to answer the questions.



i) Identify three similarities between the prokaryotic cell and the eukaryotic cell in the diagram.

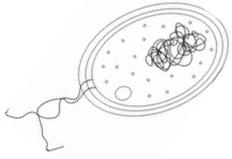
i) Identify three differences between the prokaryotic cell and the eukaryotic cell in the diagram.

# Prokaryotic and eukaryotic cells

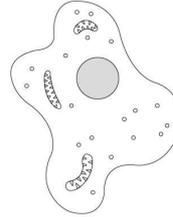


## Task 1: Define prokaryotic and eukaryotic cells

a) Complete the label to say if the cell is eukaryotic or prokaryotic.



prokaryotic



eukaryotic

b) Fill in the missing words below.

Prokaryotic cells **do not** have a membrane bound nucleus.

Eukaryotic cell **do** have a membrane bound nucleus.

*prokaryotic*

*nucleus*

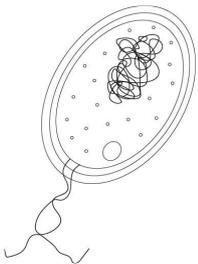
*eukaryotic*

## Task 2: Identifying examples of prokaryotic and eukaryotic cells

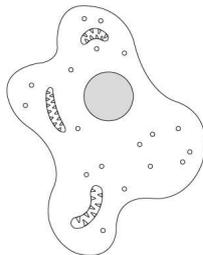
a) Complete the table to give examples of prokaryotic and eukaryotic organisms.

Eukaryotic	Prokaryotic
<i>animal</i> <i>plant</i> <i>fungi (yeast)</i>	<i>bacteria</i>

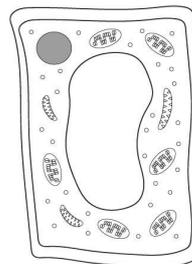
b) Name the cell in each diagram.



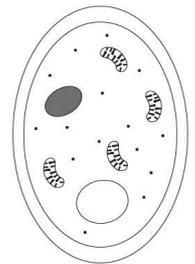
*bacteria*



*animal*



*plant*



*fungi (yeast)*

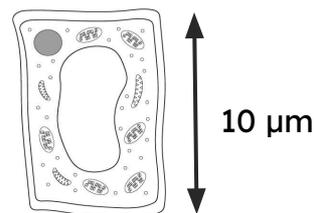
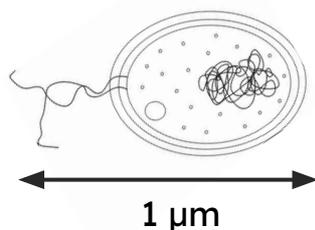


### Task 3: Comparing prokaryotic and eukaryotic cells

a) Complete the table to compare the features of prokaryotic and eukaryotic cells.

Feature	Prokaryotic	Eukaryotic
<b>Membrane bound subcellular structures</b>	<i>do not have any membrane bound sub-cellular structures</i>	<i>have membrane bound sub-cellular structures such as a nucleus, mitochondria and chloroplasts</i>
<b>DNA</b>	<i>DNA floating in cytoplasm</i>	<i>DNA inside membrane bound nucleus</i>
<b>Size</b>	<i>smaller 1-5 <math>\mu\text{m}</math></i>	<i>bigger 5-100 <math>\mu\text{m}</math></i>
<b>Cell division</b>	<i>binary fission</i>	<i>mitosis</i>
<b>Cell walls</b>	<i>cell walls made of peptidoglycan</i>	<i>Animal cells do not have cell walls. Plants have cell wall made of cellulose.</i>

b) Use these diagrams to answer the questions.



i) Identify three similarities between the prokaryotic cell and the eukaryotic cell in the diagram.

- *both have cytoplasm*
- *both have a cell membrane*
- *both have DNA*
- *both have ribosomes*

i) Identify three differences between the prokaryotic cell and the eukaryotic cell in the diagram.

- *Prokaryotic cell has no nucleus **OR** DNA is free in the cytoplasm*
- *Prokaryotic cell has no mitochondria*
- *Prokaryotic cell has loop of DNA*
- *Prokaryotic cell is smaller*