Mission Assignment: Describe the structure of animal cells

KS3-01-02

The cheek of it!

Method

1. Gently scrape the inside of your cheek with a sterile cotton bud.
2. Now, smear the scrapings onto the middle of a clean microscope slide.
3. Place your used cotton bud in a beaker of disinfectant.
4. Place a drop of dilute methylene blue on top to stain the cells.
5. Place a coverslip over the cells, lowering it carefully to avoid air bubbles.
6. Place the slide under the low-power lens of a microscope, focusing carefully. Then, switch to high power and focus using fine adjustment.
7. On your worksheet, draw (in pencil) two or three cells in detail. Try to label them using your knowledge oF animal cells.
8. Remember to note the total magnification you are using.

View your cheek cell on all 3 magnifications. For each magnification, complete the table below:

Observation 1	Magnification:
Observation 2	Magnification:
Observation 3	Magnification:

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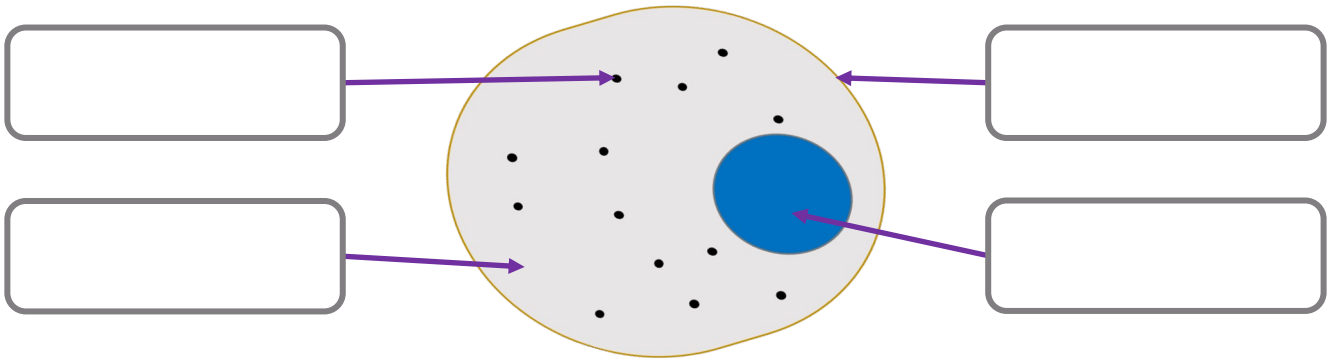
Animal cell diagram

Using the key words, label the organelles in animal cell.



Key Words

mitochondria nucleus cytoplasm membrane

For each organelle, give its function.

Cell membrane:

_____

Nucleus:

_____

Cytoplasm:

_____

Mitochondria:

_____

The function of ribosomes is to make proteins. Ribosomes are not shown on the above diagram. Can you suggest a reason why?

_____

_____

Mission Assignment: Describe the structure of animal cells ANSWERS

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Animal cell diagram

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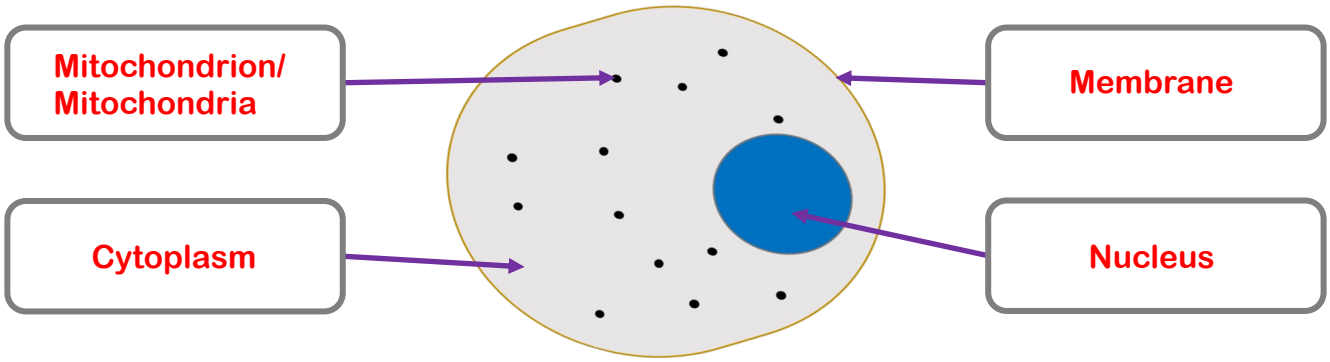

Key Words

mitochondria nucleus cytoplasm membrane

For each organelle, give its function.

Cell membrane: Controls which substances enter and leave the cell.

Nucleus: The control centre of the cell which contains the genetic information.

Cytoplasm: A jelly like substance that holds the organelle in place. It is also where chemical reactions take place.

Mitochondria: Where respiration takes place. During respiration, energy is transferred to the organism so that it can carry out basic functions.

The function of ribosomes is to make proteins. Ribosomes are not shown on the above diagram. Can you suggest a reason why?

The ribosomes are not on the diagram as it is so small. If the diagram showed the organelles magnified further, then they would be seen.