

1.1.2 Animal and plant cells

AQA GCSE Biology (Higher) Question and answer notes

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How to use these notes

These notes cover everything you need to know for this part of the specification. They have been written in question-answer format to make them easier for you to study from.

In order to study successfully, I recommend you do the following for each question and answer:

- Read it carefully and make sure you **understand** it.
- **Memorise** the answer.
- **Practice** applying your understanding to past exam questions.

A good way to memorise information is to use **retrieval practice**. This is when you practise retrieving information from your memory. You could do this by making a flashcard for each question with the question on one side and the answer on the other. Or you could use a flashcard app. Alternatively, use a sheet of paper to cover up the answer so you can only see the question. Try to answer the question and then check how you did.

You should practise retrieving each answer from your memory until you can do it perfectly. Even once you can retrieve the answer perfectly, your ability to retrieve it will probably fade as time passes without practising. Therefore you will need to keep going back to the questions that you have previously mastered and practising them again. However, each time you re-learn the answer, the memory will be stronger and will last longer than the time before.

Which sub-cellular structures are found in animal cells?

Animal cells have a cell membrane, cytoplasm, nucleus, ribosomes and mitochondria.

Which sub-cellular structures are found in plant and algal cells?

Plant and algal cells have a cell membrane, cytoplasm, nucleus, ribosomes, mitochondria, chloroplasts, a vacuole filled with cell sap and a cellulose cell wall.

What is the function of the cell membrane?

The cell membrane controls what enters and exits the cell.

What is the function of the cytoplasm?

The cytoplasm is where most of the cell's chemical reactions take place.

What is the function of the nucleus?

The nucleus contains chromosomes, which contain genes, which contain instructions for making proteins.

What is the function of ribosomes?

Ribosomes make proteins.

What is the function of mitochondria?

Mitochondria carry out aerobic respiration.

What is the function of chloroplasts?

Chloroplasts carry out photosynthesis.

What is the function of the vacuole?

The vacuole helps to keep the cell rigid.

What is the function of the cell wall?

The cell wall strengthens the cell.

What is the function of chromosomes?

Chromosomes contain genes, which contain instructions for making proteins.

What is the function of plasmids?

Plasmids contain genes, which contain instructions for making proteins.