

AQA GCSE Biology (Higher) For the Summer 2022 Exams

Flashcard Notes - 1.1.4 Cell differentiation

Copy the questions and answers below onto flashcards and use them to test yourself.

What is differentiation?

Differentiation is the process of an unspecialised cell becoming a specialised cell.

What changes take place within a cell as it differentiates?

As a cell differentiates, it gains new sub-cellular structures that allow it to carry out its function as a specialised cell.

How is differentiation involved in the development of multicellular organisms?

Multicellular organisms usually develop from a single, unspecialised cell called a zygote. The zygote undergoes cell division to produce more cells. As cell division repeats, cells differentiate to form different types of specialised cells. This allows the organism to develop all its tissues and organs.

How is differentiation different in animals and plants?

In animals, once a cell has differentiated to become specialised, it stays as that specialised cell type until it dies. In plants, some types of specialised cells can transform into other cell types.