

AQA GCSE Biology (Higher) For the Summer 2022 Exams

Flashcard Notes - 6.1.1 Sexual and asexual reproduction

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

What are the two processes by which cell division can happen in eukaryotes?

In eukaryotes, cell division can happen through mitosis or meiosis.

What does mitosis produce?

Mitosis produces two cells which are genetically identical to each other and to the parent cell that they were made from.

What does meiosis produce?

Meiosis produces four gametes (sex cells). These cells are **not** genetically identical to each other or to the parent cell. These cells are all haploid, meaning that their nucleus only contains one set of chromosomes.

What is sexual reproduction?

Sexual reproduction is when a female gamete and a male gamete fuse together to form a cell called a zygote, which then develops into a new organism.

In animals, what are the female and male gametes called?

In animals, the female gametes are called egg cells and the male gametes are called sperm cells.

In flowering plants, what are the female and male gametes called?

In flowering plants, the female gametes are called egg cells and the male gametes are called pollen grains.

[Note: Technically, pollen grains are not gametes - they contain gametes. However, in the specification it says that pollen is the male gamete in flowering plants, so that is what you should write if it comes up in the exam].

How does sexual reproduction create variation in a population?

Every gamete produced is genetically different to every other gamete produced. The fusing together of two gametes leads to a mixing of genetic information which leads to variation in the offspring.

What is asexual reproduction?

Asexual reproduction is a form of reproduction which produces offspring that are genetically identical to the parent (i.e. clones). It only involves one parent. It does not involve the fusion of gametes or the mixing of genetic information. Only mitosis is involved (not meiosis).