

# 6.2.3 Selective breeding

## 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.

### What is selective breeding?

Selective breeding is when humans change the characteristics of a population of plants or animals by repeatedly choosing which individuals to breed over many generations. In each generation, the humans choose individuals who have desired characteristics and breed them with each other. This leads to the desired characteristics becoming more and more common in the population with each generation.

### What is selective breeding also known as?

Selective breeding is also known as artificial selection.

### What are crops?

Crops are plants that are grown by humans for food or for their appearance.

**What are domesticated plants and animals?**

Domesticated plants and animals are plants and animals that have been selectively bred by humans to have characteristics that humans desire. This includes plants that have been bred to be crops and animals that have been bred to be farm animals or household pets.

**What are wild plants and animals?**

Wild plants and animals are plants and animals that have not been domesticated.

**Where did domesticated plants and animals first come from?**

Thousands of years ago, humans first started the process of selective breeding using wild plants and animals. This process created domesticated plants and animals.

**What are some examples of desirable characteristics that organisms might be selectively bred for?**

Examples of desirable characteristics that organisms might be selectively bred for include:

- Disease resistance in crop plants
- Greater meat or milk production in animals
- A gentle nature in domestic dogs
- Large or unusual looking flowers in plants

**What is the main problem with selective breeding?**

The main problem with selective breeding is that it often involves breeding together individuals that are closely related to each other. When repeated over many generations, this can lead to offspring that are prone to disease or inherited defects. This is called inbreeding.