

B15.1 Asexual reproduction

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Core

- 1 Describe asexual reproduction as a process resulting in the production of genetically identical offspring from one parent
- 2 Identify examples of asexual reproduction in diagrams, images and information provided

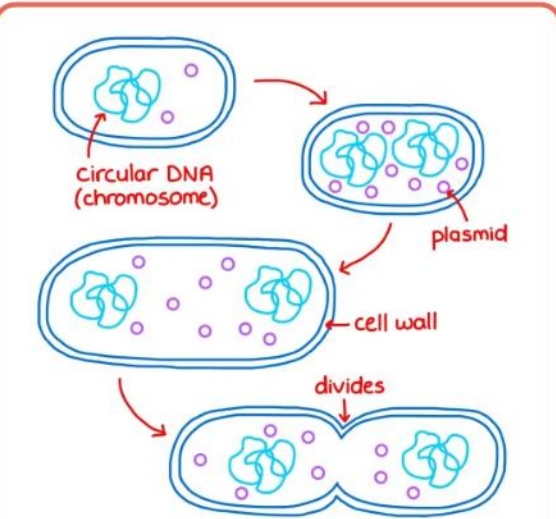
Supplement

- 3 Discuss the advantages and disadvantages of asexual reproduction to a population of a species in the wild

Asexual reproduction is the production of **genetically identical** offspring from **one parent**

No gametes involved, no fertilisation

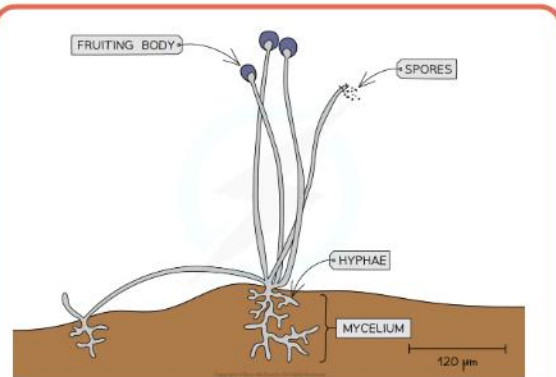
Examples



Bacteria reproduce asexually via **binary fission**

They copy their genetic material and split into two.

Occurs very quickly



Almost all **fungi** reproduce asexually

When there are nutrients, **hypha** grow vertically.

The tip swells with cytoplasm to form the fungus body, containing many identical nuclei

The tip releases **spores** containing the nuclei and each can form a new **mycelium** (threads)

Asexual reproduction in plants		
Example	Function	Plants
Bulbs	Underground food storage organ with fleshy leaves that store food and can grow and develop into new plants	Onions, garlic
Tubers	Underground food stores. Groups of cells use this food to produce the energy needed for cell division. Then cells grow and develop into new plants.	Potatoes
Runners	Horizontal stems	Strawberry, spider plants
Cuttings	Artificial propagation Cuttings of a plant are taken to produce a genetically identical copy	Every plant

Advantages

Energy-efficient

Only one parent needed so no need to find a mate or a third party for pollination

Fast

Disadvantages

No genetic variation

Difficult to **adapt** to environment

Slower evolution