

NAME \_\_\_\_\_

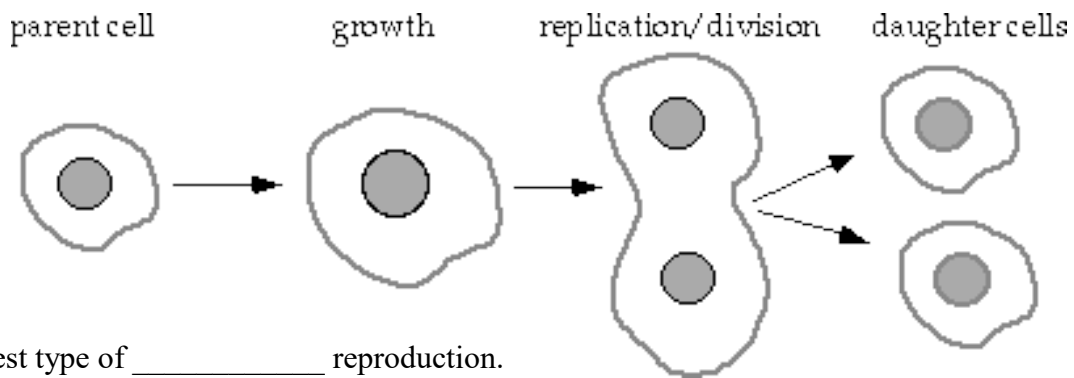
HR \_\_\_\_\_

### Asexual Reproduction Outline

#### Asexual Reproduction

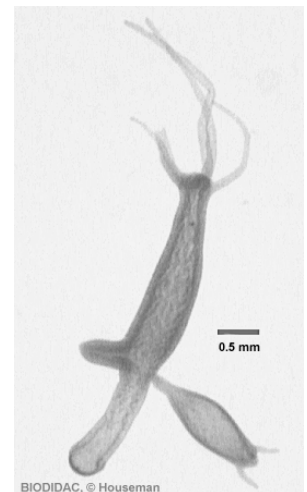
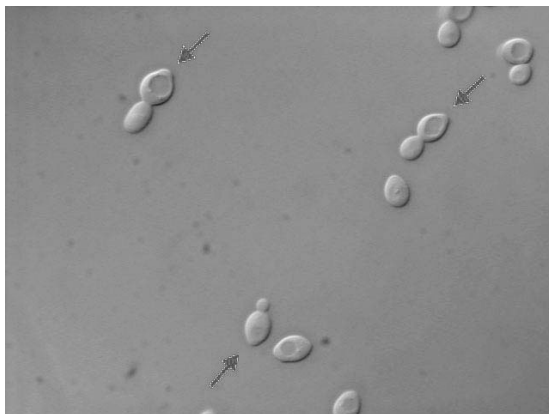
- Results from the \_\_\_\_\_ cell division (\_\_\_\_\_).
  - One cell (\_\_\_\_\_) divides into \_\_\_\_\_ identical \_\_\_\_\_ cells.
- The offspring are genetically \_\_\_\_\_ to the parent cell.
- There is no fusing (\_\_\_\_\_) of cells in this type of reproduction.
- Unicellular and multicellular plants can reproduce both \_\_\_\_\_ and \_\_\_\_\_.
- Common types of asexual reproduction include:
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#### Binary Fission



- Simplest type of \_\_\_\_\_ reproduction.
  - A \_\_\_\_\_-celled organism divides by \_\_\_\_\_ to form \_\_\_\_\_ daughter cells of equal size.
  - Both the \_\_\_\_\_ and \_\_\_\_\_ divide \_\_\_\_\_.
  - The \_\_\_\_\_ of the offspring are \_\_\_\_\_ to that of the parent.
- Example organisms:

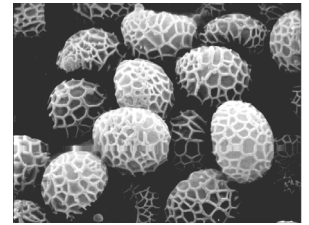
#### Budding



- A new organism develops as an \_\_\_\_\_ of the parent.
- The new organism, called the \_\_\_\_\_, is a tiny \_\_\_\_\_ of the parent organism.
- The \_\_\_\_\_ divides \_\_\_\_\_ and the \_\_\_\_\_ divides \_\_\_\_\_.
- The bud and the parent may \_\_\_\_\_ from each other or may remain \_\_\_\_\_ and form a colony.
  - Unicellular organism:
  - Multicellular organism:

**Sporulation**

- **Spores** are specialized \_\_\_\_\_ reproductive cells that contain a \_\_\_\_\_ and a small amount of cytoplasm.
- Spores are surrounded by tough protective \_\_\_\_\_ that enable them to survive in extreme \_\_\_\_\_ or \_\_\_\_\_, for long periods of time.
- When environmental conditions become \_\_\_\_\_, each spore can develop into a \_\_\_\_\_ organism.
- Formation of \_\_\_\_\_ occurs in



**Regeneration**

- The development of a new organism from a \_\_\_\_\_ of the \_\_\_\_\_ organism.
  - **Example:** In \_\_\_\_\_, a single arm can develop into a new \_\_\_\_\_.
  - Starfish eat oysters and oyster fishermen once tried to kill starfish by cutting them into pieces. Instead of dying, each starfish piece grew into a new starfish.
- Regeneration can also mean the \_\_\_\_\_ of lost \_\_\_\_\_ parts.
- Regeneration of lost body \_\_\_\_\_ occurs mostly in \_\_\_\_\_.
  - Example: \_\_\_\_\_ are able to grow a new claw to replace one that has been lost.
  - **Other Examples:**

**Vegetative Propagation**

- A form of \_\_\_\_\_ reproduction.
- A part of a \_\_\_\_\_ – a root, stem, or leaf, grows into a \_\_\_\_\_ plant.
- The new plant is \_\_\_\_\_ the same as the \_\_\_\_\_ plant.
- \_\_\_\_\_ fruits and vegetables have to be reproduced by this method.
- Growers use this type of \_\_\_\_\_ because it is \_\_\_\_\_, easy to use, and usually successful.

**Natural Vegetative Propagation**

**Tubers** – Underground \_\_\_\_\_ that contain stored \_\_\_\_\_.

- White potatoes are \_\_\_\_\_. The “\_\_\_\_\_” of the potato are \_\_\_\_\_, which can develop into new \_\_\_\_\_.



**Runners** – \_\_\_\_\_ that grow out over the surface of the \_\_\_\_\_ from the existing stem.

- At points along the \_\_\_\_\_, new \_\_\_\_\_ grow.
- Runners occur in \_\_\_\_\_ and some \_\_\_\_\_.

**Rhizomes** – Long, modified \_\_\_\_\_ that grow horizontally \_\_\_\_\_ the \_\_\_\_\_.

- New plants are produced at \_\_\_\_\_ along the \_\_\_\_\_.
- Lawn grasses, ferns, and irises reproduce by \_\_\_\_\_.

**Bulbs** – Underground \_\_\_\_\_ specialized for \_\_\_\_\_ storage.

- The food is stored in the thick \_\_\_\_\_ of the bulb.
- Each bulb can develop into a new \_\_\_\_\_.
- \_\_\_\_\_ are bulbs.

### **Artificial Vegetative Propagation**

- Occurs as the result of \_\_\_\_\_ activities.

**Cuttings** – pieces of \_\_\_\_\_, \_\_\_\_\_, or \_\_\_\_\_ develop into new plants under proper conditions.

- Roses, sugar cane, and bananas are \_\_\_\_\_ this way.

**Grafting** – A \_\_\_\_\_ from one \_\_\_\_\_, called the scion, is attached to the main \_\_\_\_\_ of a rooted \_\_\_\_\_, the stock.

- The scion keeps its own identity.
- Seedless \_\_\_\_\_ and \_\_\_\_\_ are \_\_\_\_\_ by grafting.