

Activator ? : **How do you think our cells play a role in reproduction and growth????**

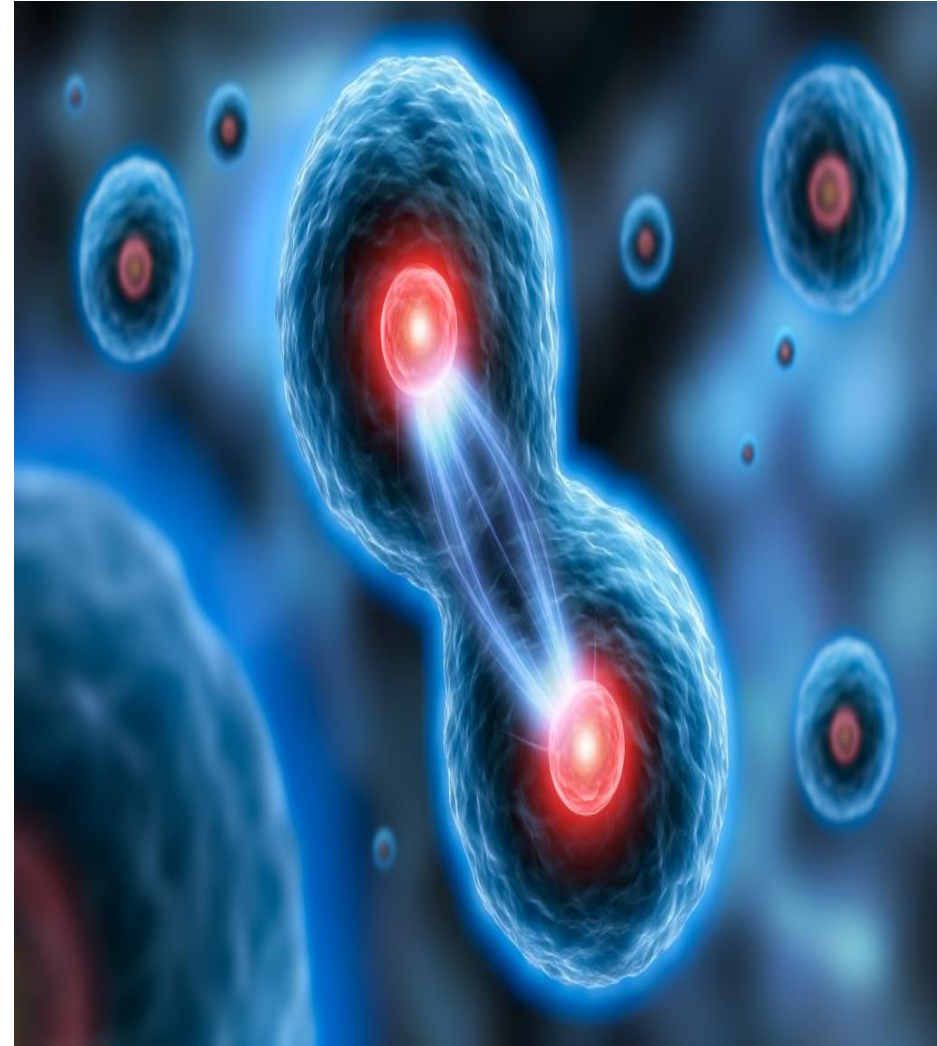
**USE THE VIDEO TO HELP WITH YOUR ANSWER!!!!**



# Cell division

One cell will enlarge and divide into a new cell.

- All cells in our body are created from other cells.



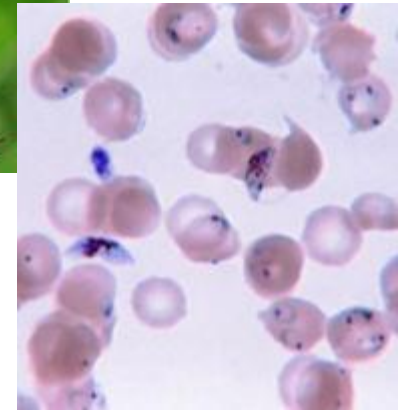
# REPRODUCTION

**When Cells Divide they create new cells**

**There are two types of Reproduction**

- 1. Asexual Reproduction- only one parent**
- 2. Sexual Reproduction- two parents**

# Types of Asexual Reproduction



# Asexual Reproduction

- **Asexual reproduction is more common in invertebrates (no spine) than vertebrates. (spine)**
- **Unicellular & multi-cellular plants can reproduce both asexually and sexually.**



# Types of Asexual Reproduction

## 1. Cloning

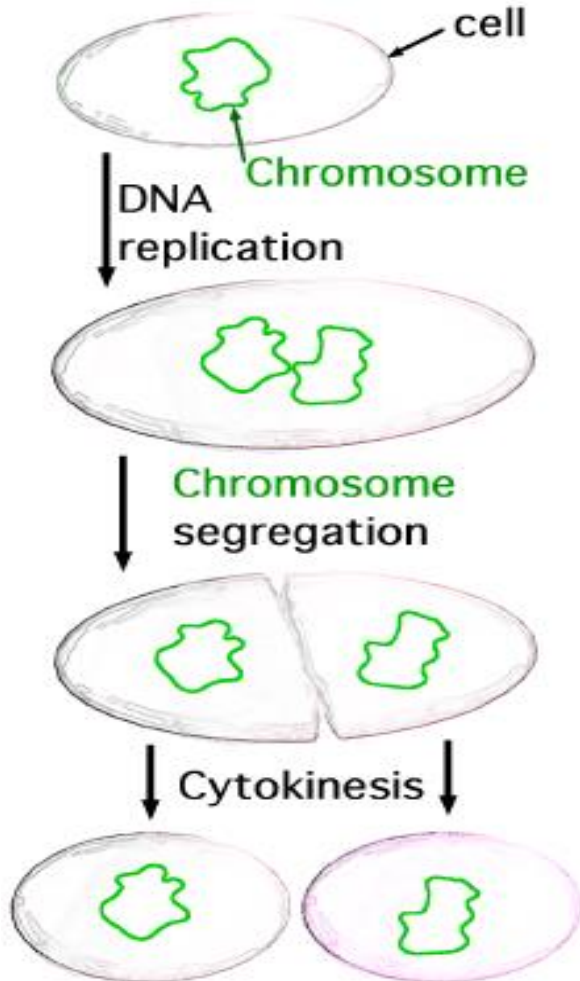
- Produces offspring from a single body cell of parent.
- New organism genetically identical to parent.



# CLONING



# Types of Asexual Reproduction



## 2. Binary Fission

- **One-celled organism undergoes mitosis to form two daughter cells of equal size.**
- **Examples: Ameba, paramecium, bacteria**



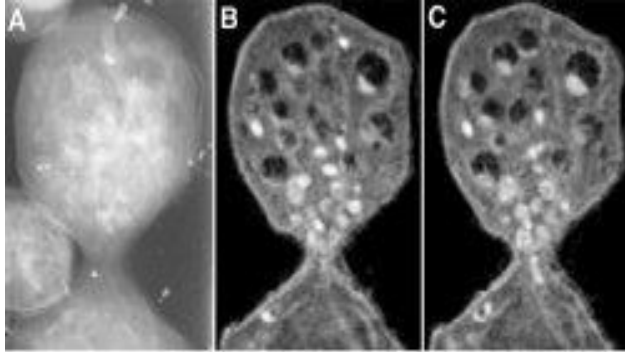
# BINARY FISSION

*Streptococcus pneumoniae*

Growth of pathogenic  
bacteria shown in time-lapse

*Speed = x540*

# Types of Asexual Reproduction



Yeast budding



Hydra budding

## 3. Budding

- **Unequal cytoplasm division**
- **Bud smaller than parent**
- **Bud may or may not remain attached**
- **Example: yeast, hydra**



# BUDDING

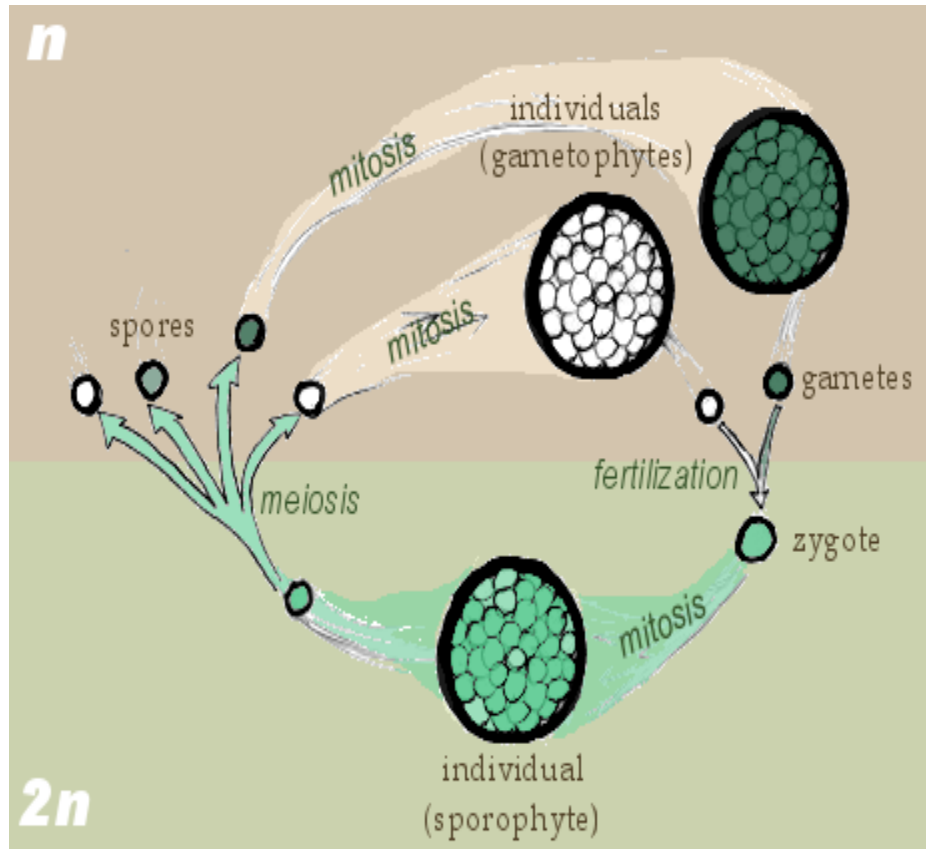


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# Types of Asexual Reproduction



Spores produced in a sporic life cycle

## 4. Sporulation

- **Forming of spores**
- **Spores are single cells produced by mitotic divisions**
- **Spores have tough coats and survive unfavorable conditions**

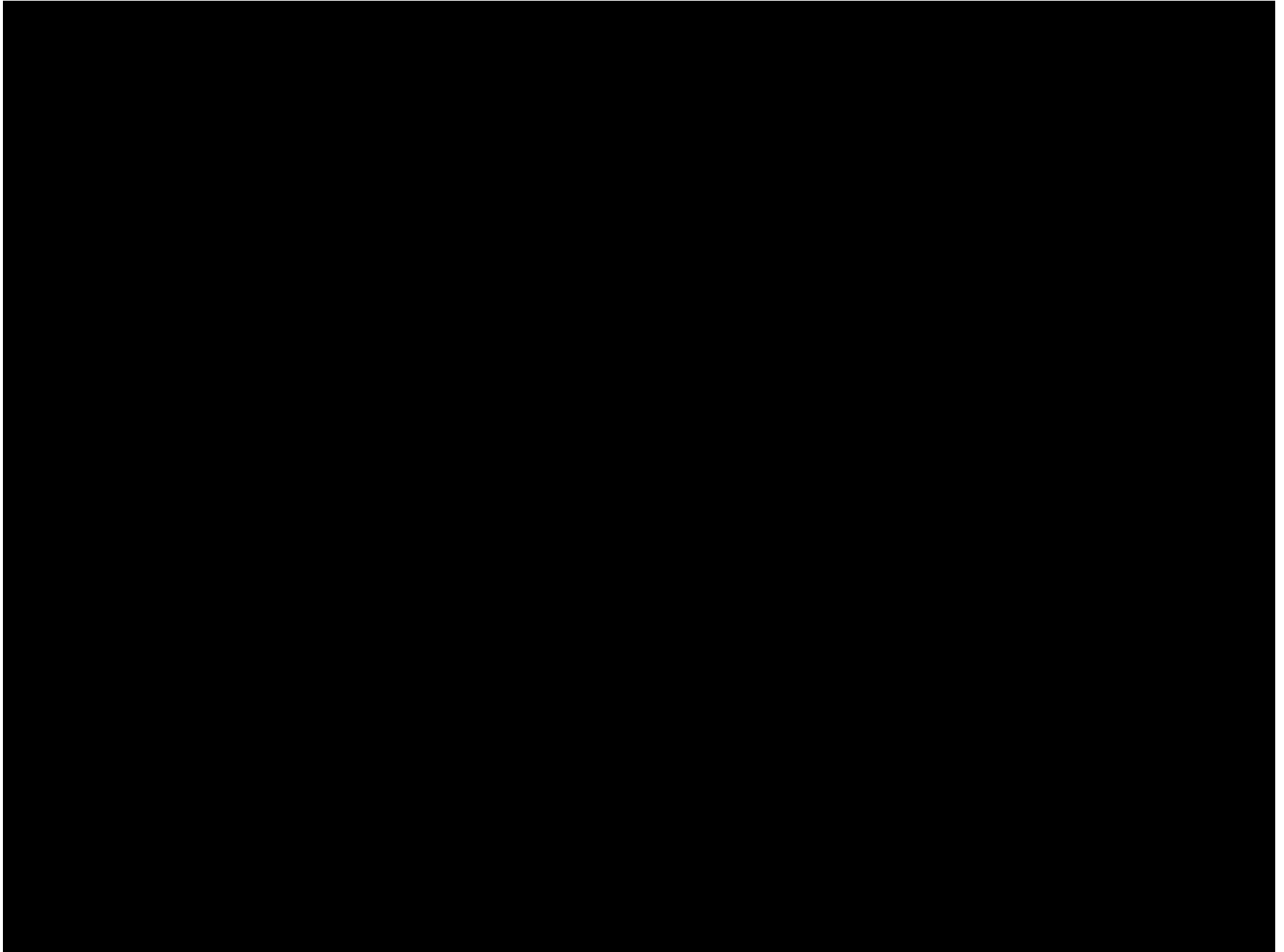
# Types of Asexual Reproduction



## 5. Regeneration

- **Development of a new organism from part of the parent organism**
  - i.e. seastar
- **Replacement of lost body parts in invertebrates**
  - i.e. lobster claw









# Types of Asexual Reproduction



## 6. Parthenogenesis

- **underdeveloped egg produced by the female develops into a new individual without the fertilization from a male**



# Summary



1/18/19

# Complete 2 vocab sets on Quizlet.

- Title: 9.1 Cellular Growth
- Title: 9.2 Mitosis and Cytokinesis
- Use text book page 244
- Use text book page 248

USE THE GLOSSARY IN THE BACK OF THE BOOK FOR DEFINITIONS