

# Importance of Reproduction

## Science 9 Learning Guide

Identify whether the reproductive strategy in each scenario is related to asexual reproduction or sexual reproduction. Give reasons for your answer.

- A) A female komodo dragon lays a clutch of eggs that requires fertilization from a male dragon.
  
- B) A male great blue heron carries out elegant courtship displays to attract a female heron to his nest.
  
- C) A purple PISAASTER sea star is chopped into two pieces, but is able to regenerate into two sea stars.
  
- D) The houseplant "mother of thousands" produces new miniature plantlets from its leaves.
  
- E) Male wood frogs make distinctive duck-like quacking sounds all day and night to let female wood frogs know that they are interested in breeding.
  
- F) A female copperhead snake in captivity gives birth to a litter of snakes without fertilization of her eggs. The offspring are genetically identical to their mother.
  
- G) During the fall rut, bulls (male moose) will fight with their antlers to determine the dominant male in the group. The noise from the sparring moose will attract the cows (female moose). The bulls will let out grunting noises to let the cows know that they are interested in mating.

**Binary Fission:** Draw pictures detailing the different phases.

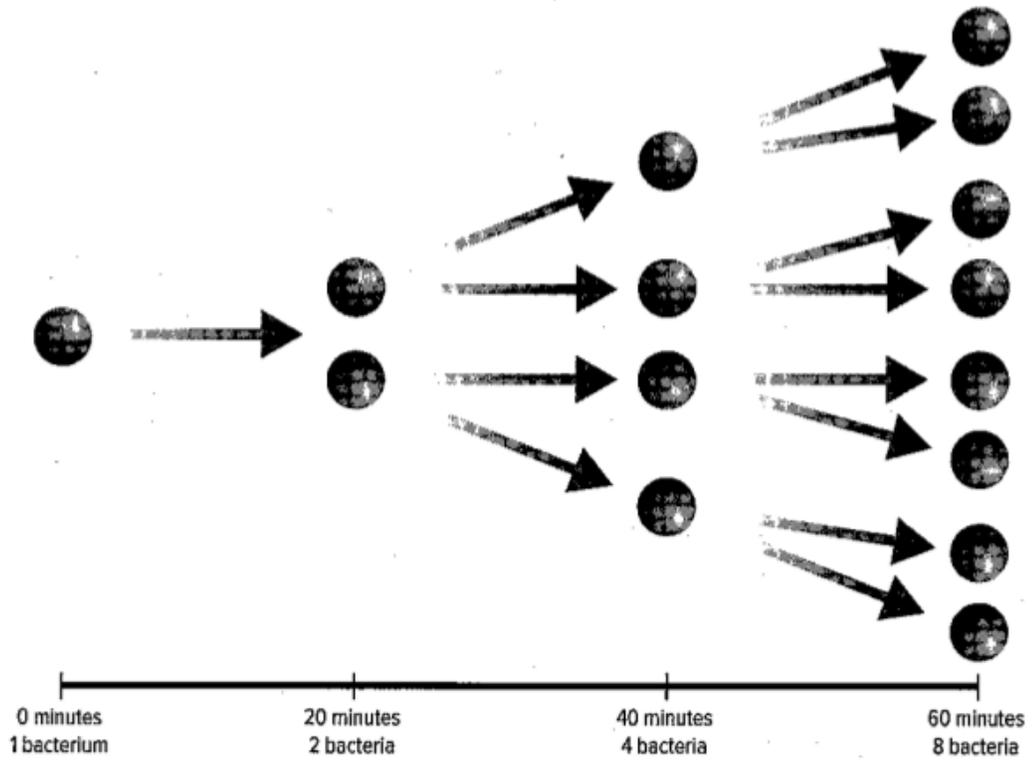
Interphase	Prophase	Metaphase
Anaphase	Telophase	Cytokinesis

Define these types of asexual cell reproduction and give an example.

Budding:

Spore Formation:

Vegetative Propagation:



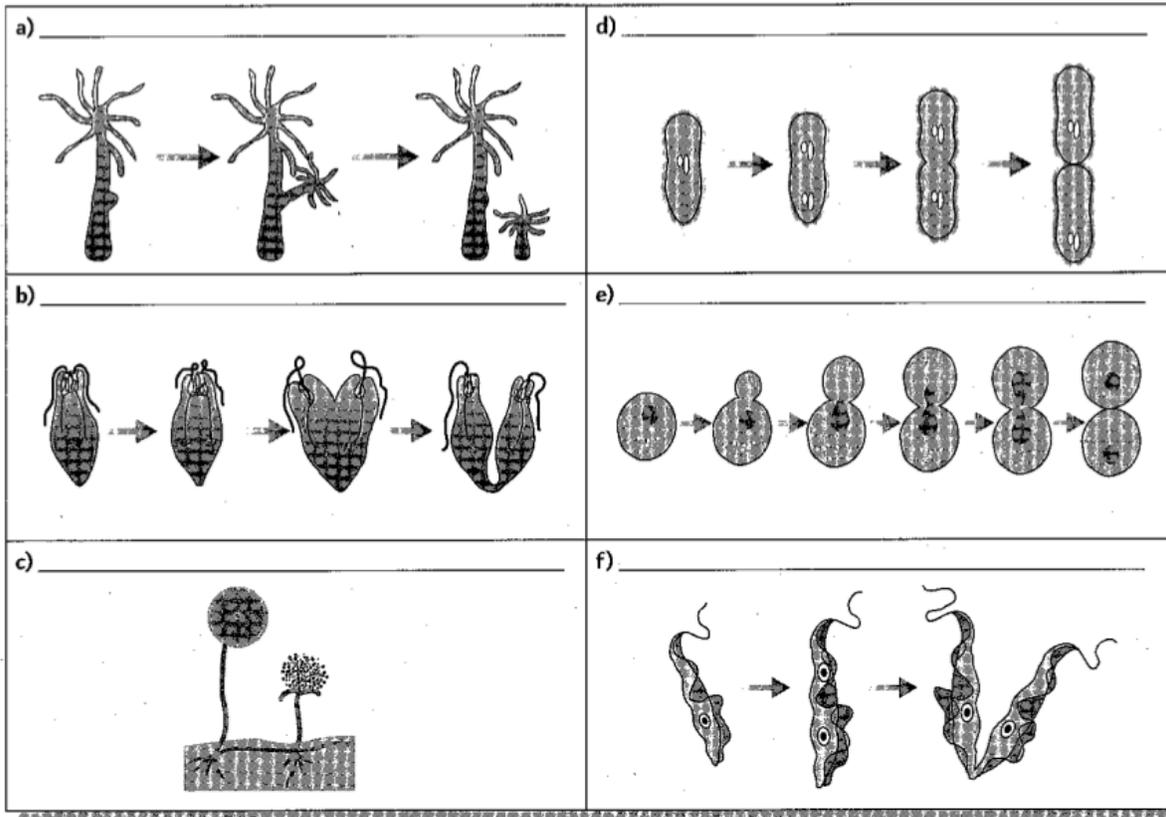
What type of reproduction is shown above?

This bacteria doubles every 20 minutes under favourable conditions. Complete the following table to display the reproduction data shown in the diagram. Then graph it.

Time (min)	# of Bacteria
0	1
20	
40	
60 (1 hour)	
80	
100	
120	
140	

How many bacteria would you expect after 12 hours? After 3 days?

1. Identify the type of asexual reproduction shown in each diagram.



Match the numbers to the corresponding letter:

1. _____ clone	A. Identical copy of a cell
2. _____ spore	B. Series of events that make up the life cycle of a cell
3. _____ budding	C. Structure released by sporangium during asexual reproduction
4. _____ cell wall	D. Type of asexual reproduction where plants grow from parts of its roots, stems, or leaves
5. _____ binary fission	E. Type of asexual reproduction where a bud forms from the parent
6. _____ vegetative propagation	F. Type of asexual reproduction where the parent cell splits into two identical daughter cells