



## What is It

### Asexual Reproduction

Asexual reproduction is defined as the formation of new individuals from the cells of a single parent. This is very common in plants less common in animals. Asexual reproduction does not involve the union of gametes (sperm cell and egg cell) and it does not change the number of chromosomes present. The resulting offspring is similar or identical to the parent and without the need for a mate, they are able to reproduce. There are different types of asexual reproduction in animals.

Activity 3 Reveal me!

Directions. Reveal the terms in grid by replacing the number with the vowels.

Use small letters only.      A(1) E(2) I(3) O(4) U(5)

1. 

1	S	2	X	5	1	L

  - Single individual produces offspring
2. 

F	R	1	G	M	2	N	T	1	T	3	4	N

  - Pieces of the parent breaks off and develops into a new animal
3. 

B	3	N	1	R	Y

  - Process in which an organism divides into two and grow into a new organism
4. 

B	5	D	D	3	N	G

  - Process outgrowth or callus projecting from the parent and eventually buds off
5. 

P	1	R	T	H	2	N	4	G	2	N	2	S	3	S


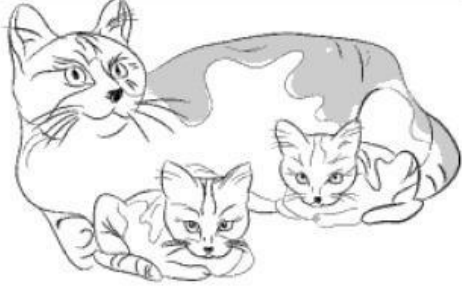
  - Mechanism of asexual reproduction in which female offspring develops from unfertilized eggs

## Sexual Reproduction

Sexual reproduction is the perpetuation of a new organism from two organism with the use gametes. In this process male gametes which is the sperm cell fuses with a female gamete known as the egg cell to form a diploid cell called zygote containing two sets of chromosomes. During sexual reproduction the genetic material contained in their chromosomes combine to produce genetically diverse offspring that is different from both parents. Humans, frogs, fish, cats and dogs all reproduce through the method of sexual reproduction.

### Activity 4 Fill In

Directions. Complete the description of the illustration in the left column by choosing the terms in the grid. Write your answer in the spaces.

INSIDE	EGG	PARENT	YOUNG
	OVIPAROUS ANIMALS that lay their _____, with little or no other embryonic development within the _____.		
	VIVIPAROUS ANIMALS bringing forth live _____ that have developed _____ the body of the parent.		



## What's More

### Types and Examples of Asexual Reproduction in Animals

#### Activity 5 Asexual Reproduction in Animals

Directions. Match animals to the type of asexual reproduction and their descriptions. Write the type of asexual reproduction and the letter of the description in each column.

Type of asexual reproduction:

PARTHENOGENESIS  
TRANSVERSE FISSION

BINARY FISSION  
BUDDING

FRAGMENTATION

Descriptions:

- A. The organism split into two separate organism.
- B. A new individual grows on the body of its parent.
- C. Multiple pieces of the parent breaks off and develops into a new organism.
- D. The organism divides into two, leaving one piece headless and the other tailless each piece grows the missing body parts.
- E. Females egg develop into a new organism without being fertilized by a sperm cell.

ANIMALS	DESCRIPTION <u>Letter only</u>	TYPES
1. honey bee ( <i>Apis mellifera</i> )		
2. hydra ( <i>Hydra oligactis</i> )		
3. amoeba ( <i>Amoeba proteus</i> )		
4. star fish ( <i>Asteroidea</i> )		
5. flat worms ( <i>plathelminthes</i> )		
6. aphids ( <i>Myzus persicae</i> )		
7. bluegreen algae ( <i>cyanobacterium</i> )		
8. black worm ( <i>Lumbriculus variegatus</i> )		
9. yeast ( <i>Saccharomyces cerevisiae</i> )		
10. paramecium ( <i>Pamecium caudatum</i> )		

### Activity 6 Fit me

Directions. Complete each statement by choosing the terms in the grid below. Write your answers in the box.

PARTHENOGENESIS  
FRAGMENTATION

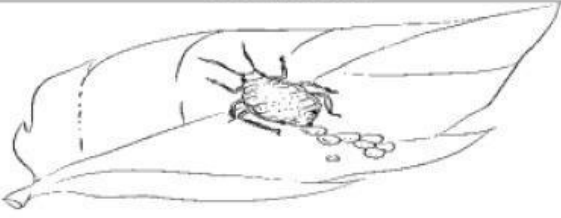

BUDDING

CLONE  
BINARY FISSION

- \_\_\_\_\_ is a term used to describe morphologically and genetically similar individuals through asexual reproduction.
- An asexual reproduction in which a new organism develops from an outgrowth or bud due to cell division at one particular site is called \_\_\_\_\_
- In multicellular organisms, \_\_\_\_\_ is a form of asexual reproduction in which an organism is split into fragments and each of these fragments develop into matured, fully grown individuals that are identical to their parents
- \_\_\_\_\_ is a form of asexual reproduction commonly seen in single-celled organisms, such as bacteria and certain protists. It's a process where a single cell divides into two identical daughter cells.
- \_\_\_\_\_ is a reproductive strategy that involves the development of a female (rarely a male) gamete (sex cell) without fertilization.

### Activity 7 Aphids Reproduction

Directions. Using the diagram, complete the statement below by choosing from the choices. Write your answer in the blank.

<p>Condition A</p> 	<p>Aphids can reproduce asexually when condition are stable and favorable during early springs, they can produce clones through _____.</p> <p>(parthenogenesis; budding)</p>
<p>With source of food</p>	
<p>Condition B</p> 	<p>In autumn, plants prepare for dormancy, food becomes scarce then aphids switch to reproductive modes to produce by _____ means.</p> <p>(sexual, asexual)</p>
<p>Scarcity of food</p>	

## Examples of Sexual Reproduction in Animals

### Activity 8 Sexual Reproduction in Animals

Directions. Classify the following animals as viviparous or oviparous. Write your answer in the space given.

ANIMALS	CLASSIFICATION
1. turtle ( <i>Eretmochelys imbricate</i> )	
2. eagle ( <i>Pithecopphaga jefferyi</i> )	
3. giraffe ( <i>Giraffa camelopardis</i> )	
4. salmon ( <i>Salmo salar</i> )	
5. monkeys ( <i>Macaca fascicularis</i> )	
6. human ( <i>Homo sapiens</i> )	
7. frogs ( <i>Ran pipens</i> )	
8. banobo ( <i>Pan paniscus</i> )	
9. clownfish ( <i>Amphiprion ephippium</i> )	
10. cattle ( <i>Bos taurus</i> )	