



CHAPTER-REPRODUCTION IN ANIMALS

GUIDELINES

Dear Students

- Refer to the following content of the chapter - **REPRODUCTION IN ANIMALS**.
- These notes will help you understand the concept of the lesson and complete the assignment that follows, which will be graded on submission.
- Do the assignment questions in the Biology notebook.
- Watch the videos related to the subtopics for which the links have been provided to you for further clarification.
- You may follow the following link to refer to class 8 Science NCERT book for this chapter:
<http://ncert.nic.in/textbook/textbook.htm?hesc1=9-18>

SUBTOPICS:

- **INTRODUCTION TO REPRODUCTION**
- **MODES OF REPRODUCTION**
- **SEXUAL REPRODUCTION**
- **FERTILISATION**

REPRODUCTION

- It is the process by which living organisms produce more living organisms of its own kind.
- It is essential for the continuation of a species.
- It is very important as it ensures the continuation of similar kinds of individuals, generation after generation.

MODES OF REPRODUCTION

You must have seen the young ones of various animals being born. Based on your knowledge, answer the following questions orally:

- ❖ Can you tell how chicks and caterpillars are born?
- ❖ How are kittens and puppies born?
- ❖ Do you think that these young ones looked the same before they were born as they do now?
- ❖ **Look at the picture of animals and their babies and complete the given table by giving oral replies:**

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Table 9.1

S. No.	Animal	Young one
1.	Human	Baby
2.	Cat	
3.	Dog	
4.	Butterfly	
5.	Hen	Chick
6.	Cow	
7.	Frog	



There are two main types of reproduction in living organisms:

1. Asexual Reproduction: The process of reproduction in which new individuals are produced from a single parent. E.g., Bacteria, Amoeba, Yeast. Asexual reproduction is found in the single-celled organisms such as the Amoeba, Bacteria etc.

NOTE:- Many plants and fungi reproduce asexually.

2. Sexual Reproduction: The process of reproduction in which two individuals are involved to produce a new individual. E.g., human, tiger and so on

Watch the video in given link for better understanding:
<https://www.youtube.com/watch?v=4h4tdQxgWP0>

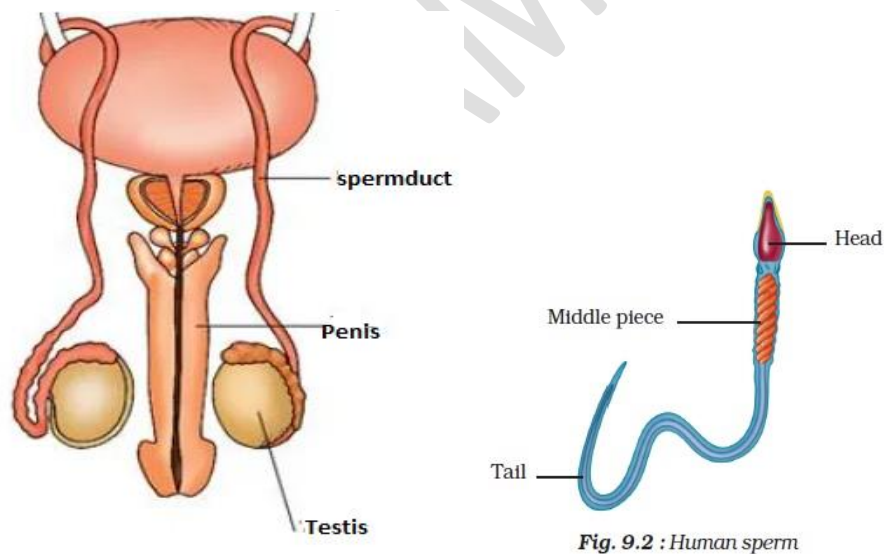
SEXUAL REPRODUCTION

In animals, males and females have different reproductive parts or organs. The reproductive parts in animals produce gametes that fuse to form a zygote. It is the zygote which develops into a new individual. This type of reproduction beginning from the fusion of male and female gametes is called sexual reproduction.

Reproductive Organs in Humans:

1. Male Reproductive Organs:

A pair of **testes (singular, testis)**, **two sperm ducts** and a **penis**, these are the male reproductive organs. The testes produce the male gametes called **sperms**. Millions of male gametes (sperms) are produced by the testes. Though sperms are very small in size, each has a head, a middle piece and a tail. Sperm is a single cell with all the usual cell components.

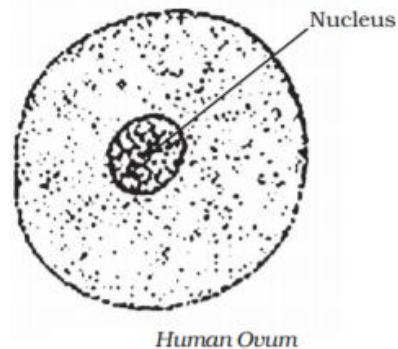
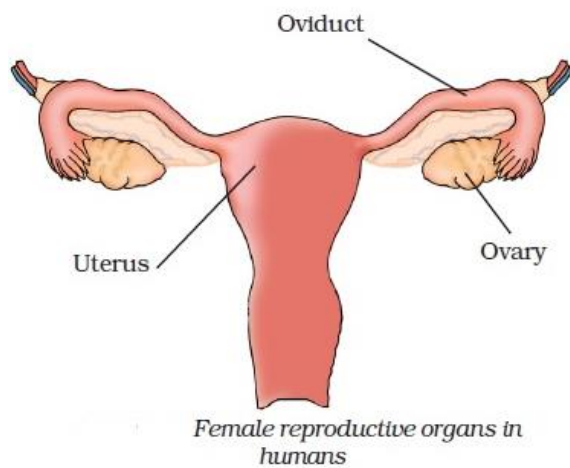


Human Male Reproductive System

Watch the video in the given link for better understanding:
<https://www.youtube.com/watch?v=T8q3JpTWhrY>

2. Female Reproductive Organs

A pair of **ovaries**, **oviducts (Fallopian tubes)** and the **uterus**, these are the female reproductive organs. Ovary produces female gametes called **ova (eggs)**. In human beings, a single matured egg is released by one of the ovaries, into the oviduct every month. Uterus is the part where development of the baby takes place. An egg is also a single cell.



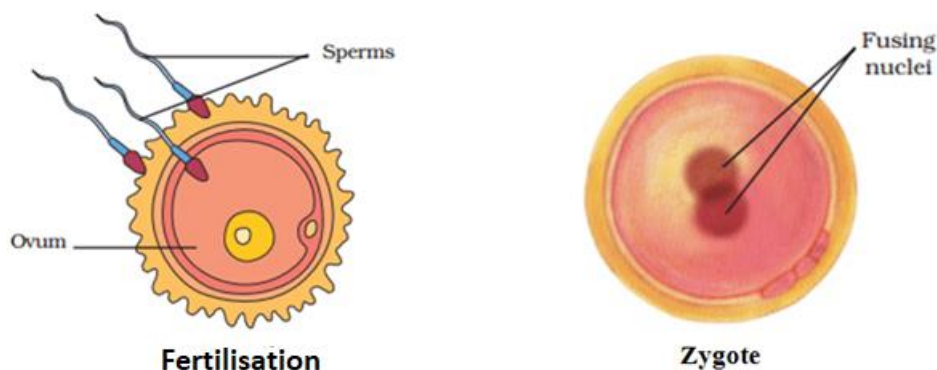
Watch the video in the given link for better understanding:
https://www.youtube.com/watch?v=-5SOvWaW_OY

The size of eggs in animals varies. The egg may be very small, as in humans, or much larger as in hens.

Ostrich egg is the largest cell!

Fertilisation

The process of fertilisation is fusion of a male gamete (Sperm) with a female gamete (Ovum). Zygote is formed after fertilization.



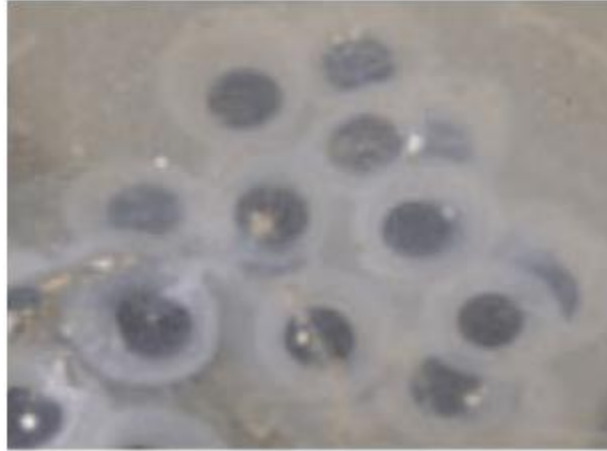
Watch the video in the given link for better understanding:
<https://www.youtube.com/watch?v=5EvnCzOpy2o>

Types of Fertilisation - There are two types of fertilization in animals, external fertilization and internal fertilization.

1. Internal Fertilisation: When fertilization takes place inside the animal's body, it is called internal fertilization. Internal fertilization occurs in many animals including humans, cows, dogs and hens.

2. External Fertilisation: In this type of fertilization, the fusion of a male and a

female gamete takes place outside the animal's body hence it is called external fertilization. It is very common in aquatic animals such as fish, starfish, etc. Example- During spring or rainy season, frogs and toads move to ponds and rivers. When the male and female come together in water, the female lays the eggs, the male deposits sperms over them. Each sperm swims randomly in water with the help of its long tail. The sperms then come in contact with the eggs.



Eggs of frog

LET'S SUMMARISE WHAT YOU HAVE LEARNT:

- There are two modes by which animals reproduce.
- These are (i) Sexual reproduction, and (ii) Asexual reproduction.
- Reproduction resulting from the fusion of male and female gametes is called sexual reproduction.
- The reproductive organs in the female include ovaries, oviducts and uterus.
- The reproductive organs in male include testes, sperm ducts and penis.
- The ovary produces female gametes called ova and the testes produce male gametes called sperms.
- The fusion of ovum and sperm is called fertilisation.
- The fertilised egg is called a zygote.
- Fertilisation that takes place inside the female body is called internal fertilisation. This is observed in human beings and other animals such as hens, cows and dogs.
- Fertilisation that takes place outside the female body is called external fertilisation. This is observed in frogs, fish, starfish, etc

ASSIGNMENT

Q1. Why do fish and frogs lay eggs in hundreds whereas a hen lays only one egg at a time?

Q2. What purpose does the tail in a sperm serve?

Q3. Explain the importance of reproduction in organisms.

Q4. Differentiate between internal fertilisation and external fertilisation.

Q5. Choose the most appropriate answer.

(a) Internal fertilisation occurs:

(i) in female body.

(ii) outside female body.

(iii) in male body.

(iv) outside male body

{b} After fertilisation, the resulting cell which gives rise to a new individual is the:

(i) embryo

(ii) ovum

(iii) foetus

(iv) zygote

Q6. Observe the figure given as Fig. 9.2 and answer the questions that follow.

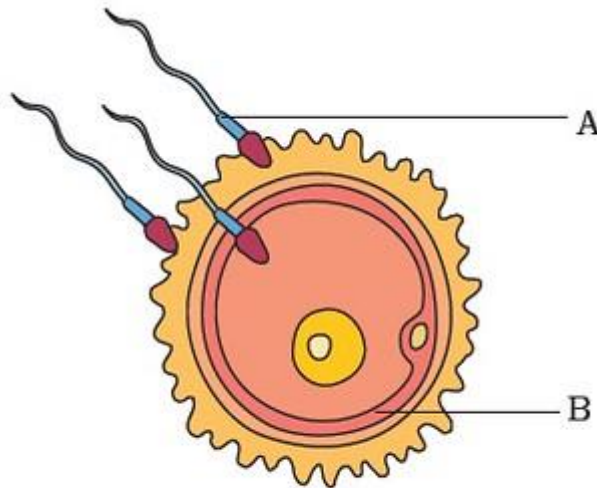


Fig. 9.2

(a) Label A and B.

(b) Identify the process.

(c) What happens during this process and what is formed?