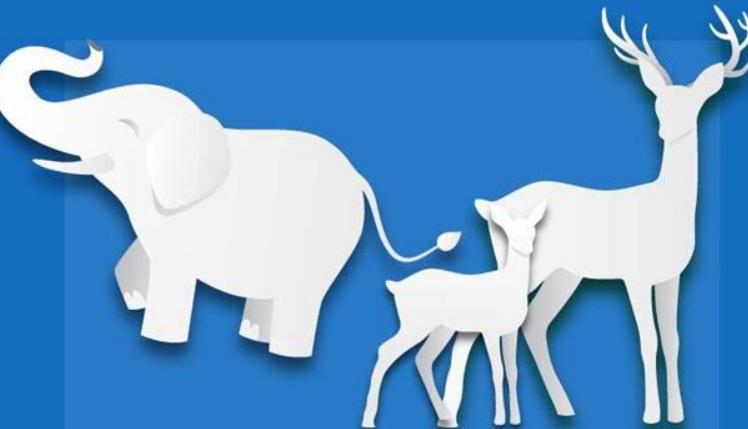


ANIMAL KINGDOM

L10

ZOOLOGY



PUSHPENDU SIR

FREE FOR 14 DAYS!



Aakash
+ BYJU'S





ANTHE

AAKASH NATIONAL TALENT HUNT EXAM

Your Gateway To Success

For Class VII to XII

Current Students & Passouts



Aakash

+ BYJU'S

**DROPPERS
BATCH**

MONDAY AND WEDNESDAY | 2 PM CHEMISTRY, 3 PM BOTANY

TUESDAY AND THURSDAY | 2 PM PHYSICS, 3 PM ZOOLOGY



VIVEK SIR

CHEMISTRY | 2:00 PM



PANKHURI MA'AM

BOTANY | 3:00 PM



ANUSHRI MA'AM

PHYSICS | 2:00 PM



SACHIN SIR

ZOOLOGY | 3:00 PM

12TH CLASS | TUESDAY, THURSDAY

11TH CLASS | MONDAY, WEDNESDAY, FRIDAY



3 PM | 4 PM | 5 PM | 6 PM



VIVEK SIR

CHEMISTRY | 3:00 PM



ANUSHRI MA'AM

PHYSICS | 4:00 PM



SACHIN SIR

ZOOLOGY | 5:00 PM



PANKHURI MA'AM

BOTANY | 5:00, 6:00 PM



PUSHPENDU SIR

ZOOLOGY | 6:00 PM



Mission MBBS 2023 | What next after the NEET 2022 result?

 21st August, 2022

 12:30 pm



Dr. Sachin Kapur
Biology Expert - NEET



Animal Kingdom

Animal Kingdom

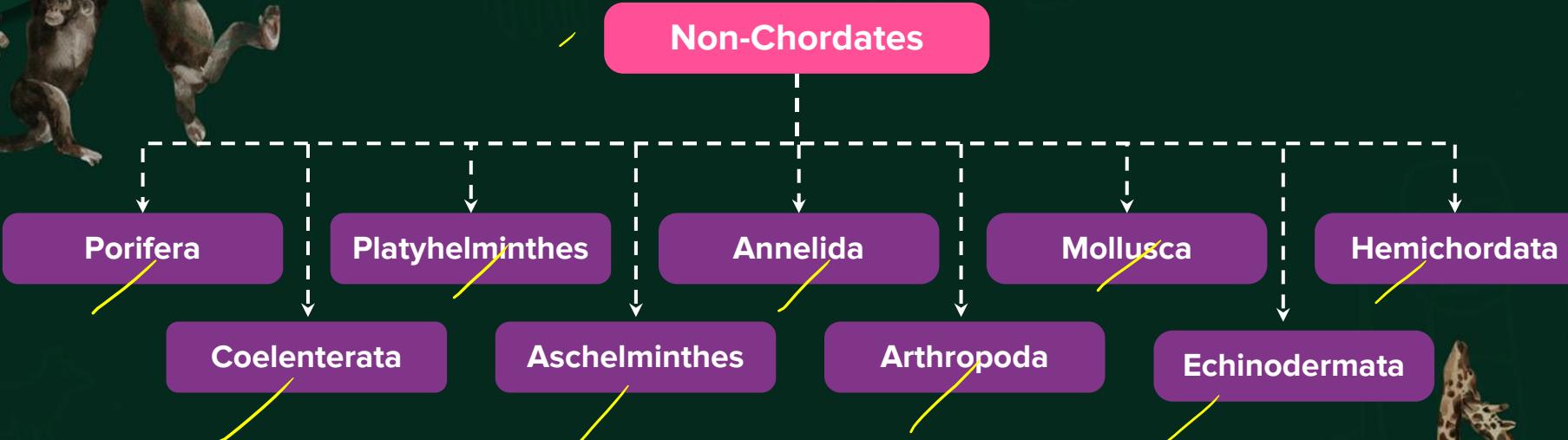
Non-chordates

Chordates





Non-Chordates





Chordata

Urochordata

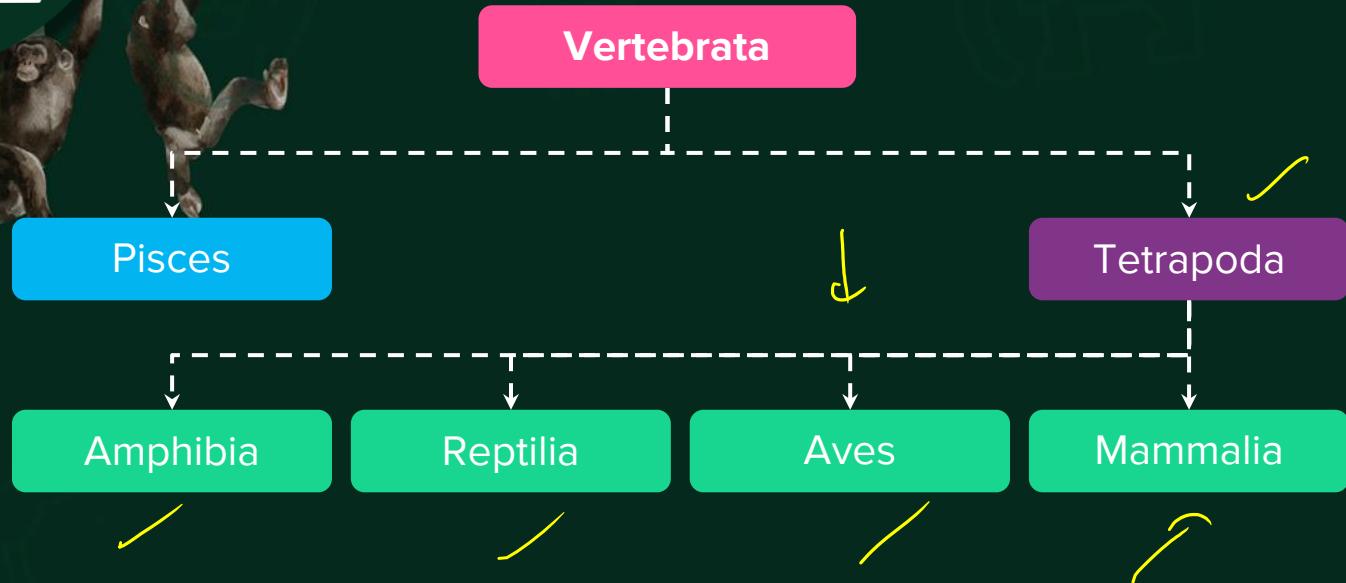
Cephalochordata

Vertebrata





Vertebrata





Vertebrata



Vertebrata

Pisces

Tetrapoda

Amphibia

Reptilia

Aves

Mammalia



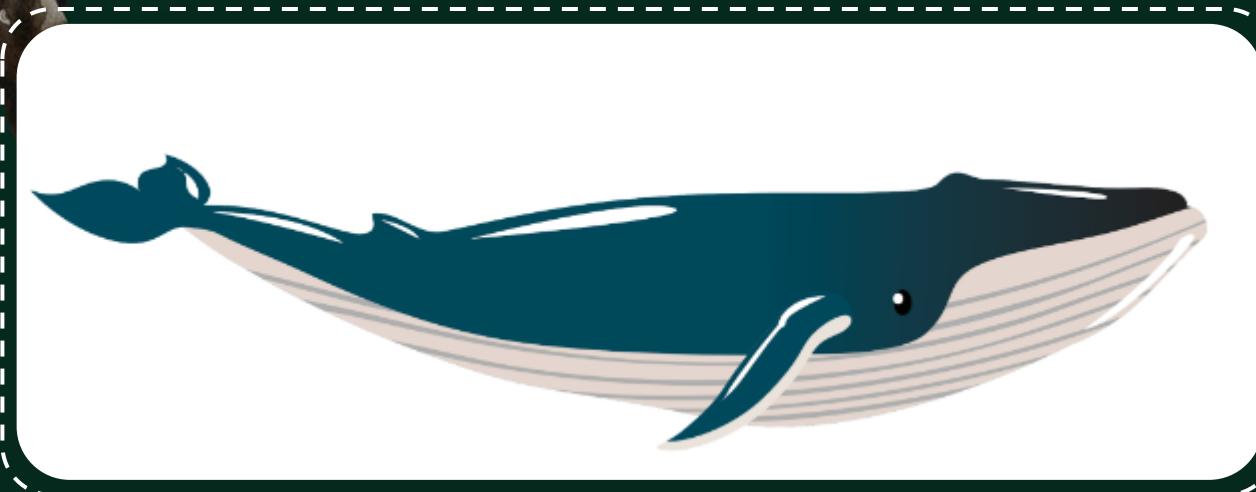


Which is the largest animal in the ocean?





Blue Whale - Largest animal in the ocean



Blue whale

(Balaenoptera musculus)

Length 29.5 m (97 feet)





Which is the largest animal on land?

A decorative illustration in the bottom right corner showing a white rhinoceros standing next to two giraffes. There are also some tropical leaves in the foreground.



Elephant - Largest land animal





Which is the fastest animal on land?





Cheetah - Fastest animal on land





Which is the tallest animal on
land?



!

Giraffe - Tallest animal on land

=



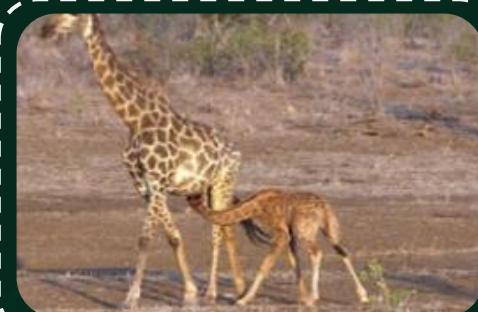


What is the common feature among all these different animals ?





What is the common feature among all these different animals ?



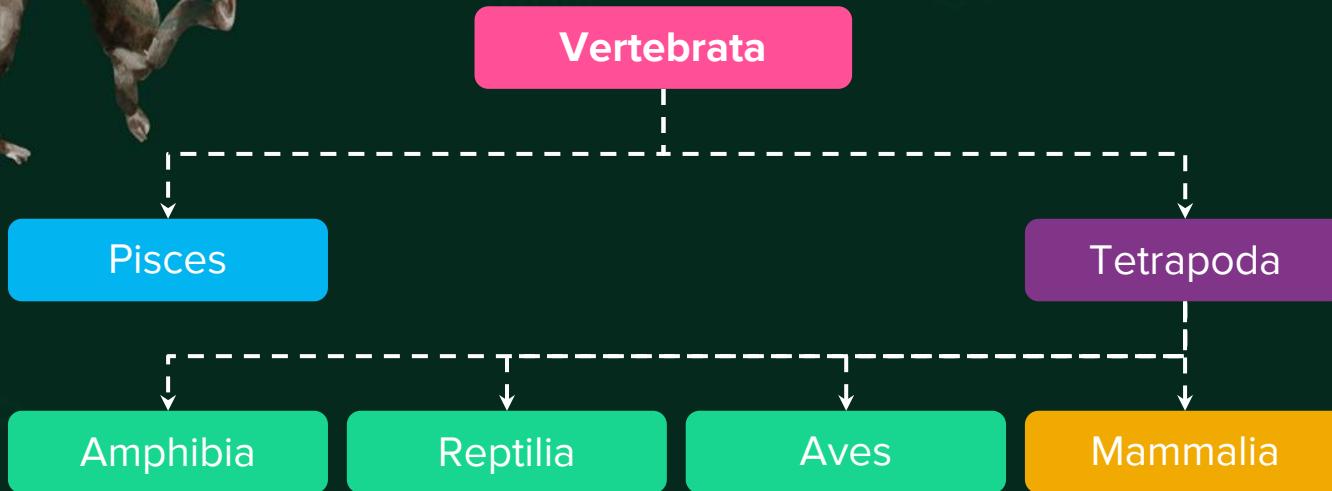
→ **Mammary glands** to feed their young ones



Class Mammalia



Vertebrata



Where do mammals live?

Habitat

- **Variety** of habitats

Forests



Lion (*Panthera leo*)



Elephant (*Elephas*)



Habitat

- **Variety** of habitats

Deserts



Camel (*Camelus*)



Kangaroo rat (*Dipodomys*)



Habitat

- **Variety** of habitats

Polar Regions



Polar bear (*Ursus maritimus*)



Snow leopard (*Panthera uncia*)



Habitat

- **Variety** of habitats

Mountains



Mountain goat
(Oreamnos americanus)



Mountain lion
(Puma concolor)



Habitat

- **Variety** of habitats

Grasslands



Zebra (*Equus quagga*)



Giraffe (*Giraffa*)



Habitat

- **Variety** of habitats

Water



Blue whale (*Balaenoptera*)



Dolphin (*Delphinus*)



Habitat

- **Variety** of habitats

Caves



Bat (*Pteropus*)



Bear (*Ursidae*)



Did You Know?





Only Mammal Capable of Flight



Bats



External Features

External Features

Adaptations of Limbs

- Two pairs of limbs



External Features

Adaptations of Limbs

- Two pairs of limbs
- Adapted for different functions

Walking



External Features

Adaptations of Limbs

- **Two pairs of limbs**
- **Adapted** for different **functions**

Running



External Features



Adaptations of Limbs

- **Two pairs of limbs**
- **Adapted** for different **functions**

Climbing



External Features



Adaptations of Limbs

- **Two pairs of limbs**
- **Adapted** for different **functions**

Burrowing



External Features

Adaptations of Limbs

- **Two pairs of limbs**
- **Adapted** for different **functions**

Swimming



External Features



Adaptations of Limbs

- **Two pairs of limbs**
- **Adapted** for different **functions**

Flying / Gliding



External Features

External Ears

- **External pinna** - Outer part of the ear sticks out



External Features

Teeth

- **Heterodont** - **Different** types of **teeth** for **different functions**

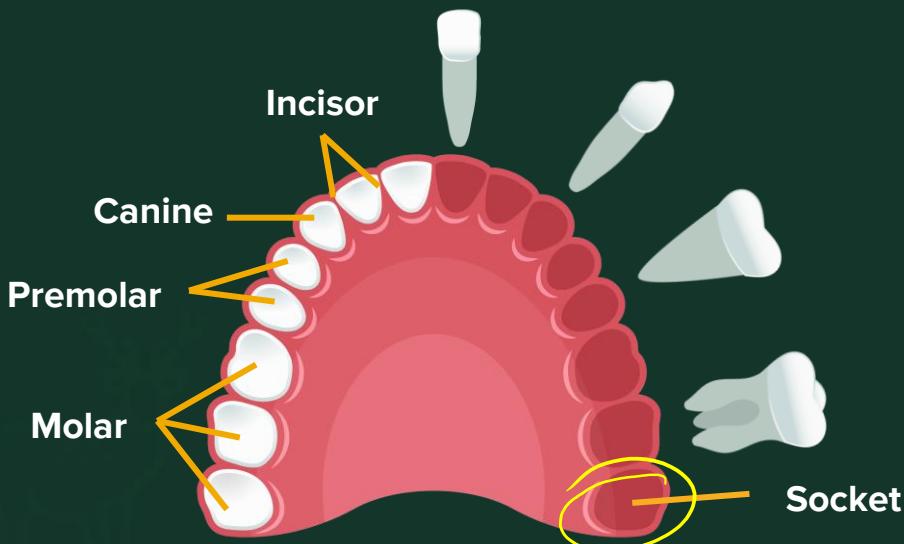
Types of Human Teeth



External Features

Teeth

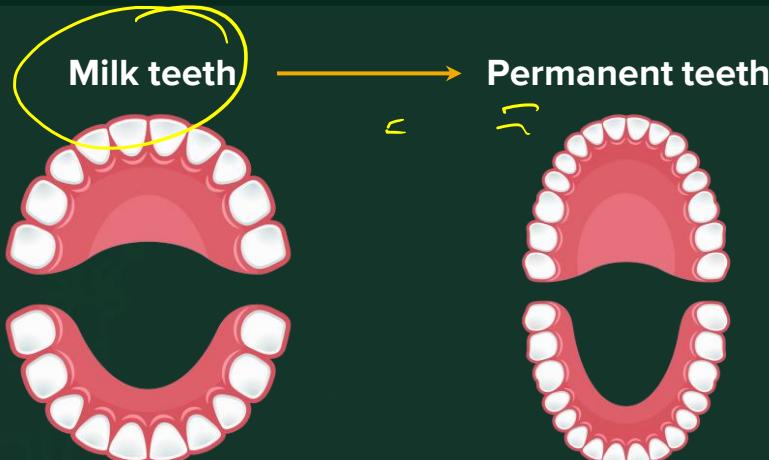
- **Heterodont** - Different types of **teeth** for different functions
- **Thecodont** - Teeth **embedded** in **sockets** in jaw



External Features

Teeth

- **Heterodont** - Different types of **teeth** for different functions
- **Thecodont** - Teeth **embedded** in sockets in jaw
- **Diphyodont** - Teeth formed **twice** during a lifetime



Internal Features

Internal Features

- **Homiotherms (warm-blooded)** - Maintain stable body temperature
 - **Body hair** - prevents heat loss





But... What about Whales and Dolphins,
do they have hair?





Hair in Aquatic Mammals

Aquatic mammals have hair on their body at some point in their life

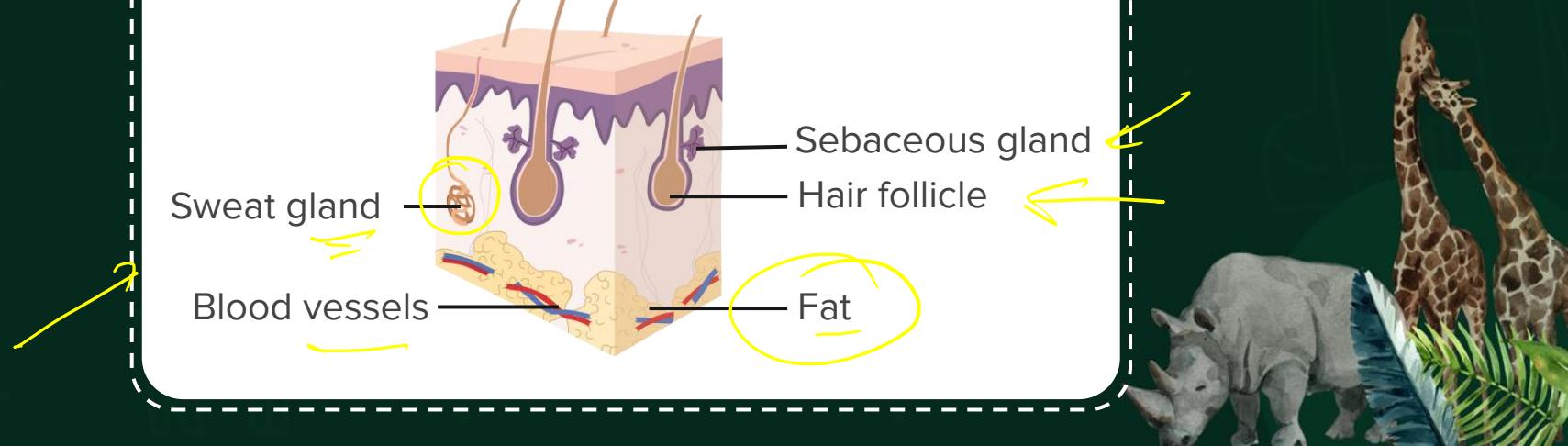
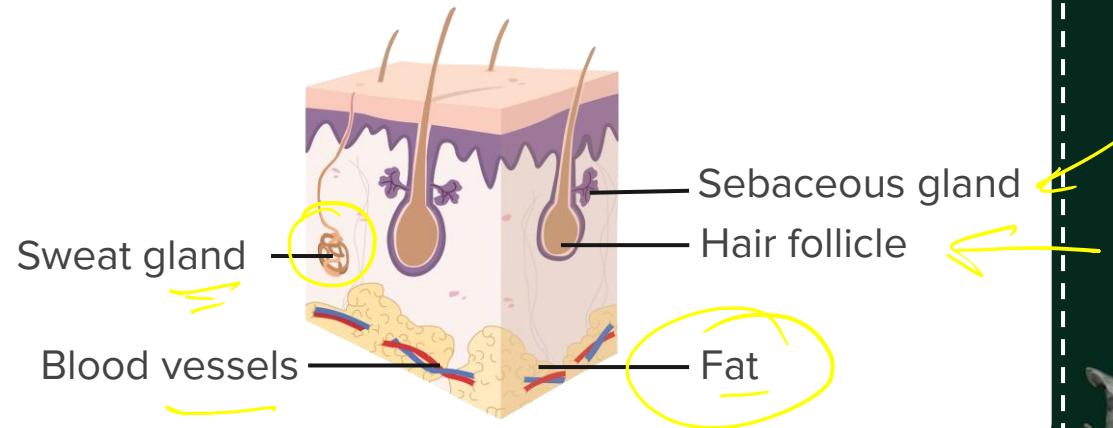
- Used for **sensory perception**



Internal Features

- **Homiotherms (warm-blooded)** - Maintain **stable** body **temperature**
 - **Body hair** - prevents heat loss
 - **Sweat glands**

Components of the skin



Internal Features

- **Homiotherms (warm-blooded)** - Maintain **stable** body **temperature**

- Body hair - prevents heat loss

- Sweat glands**

- Regulates body temperature

- Removes waste products

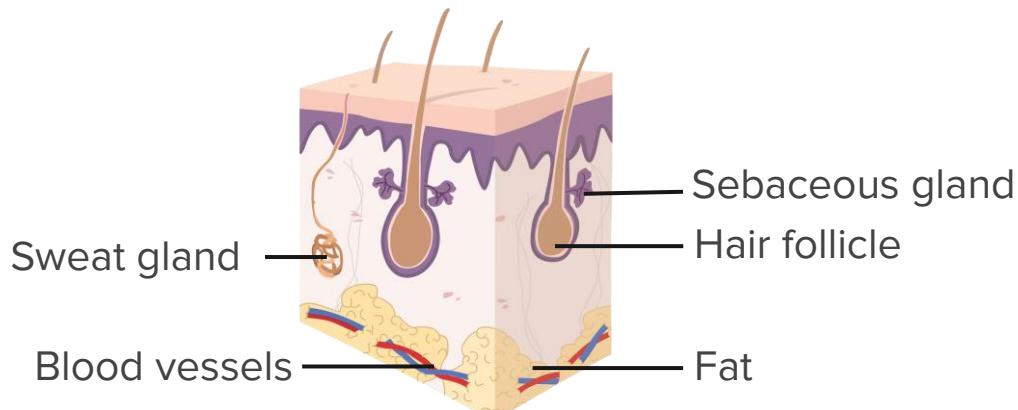


Internal Features

Characteristic Features

- They have **sebaceous glands**
 - Produce an oily secretion called **sebum** that keeps the skin moist.

Components of the skin



Internal Features

Respiratory System

- Lungs



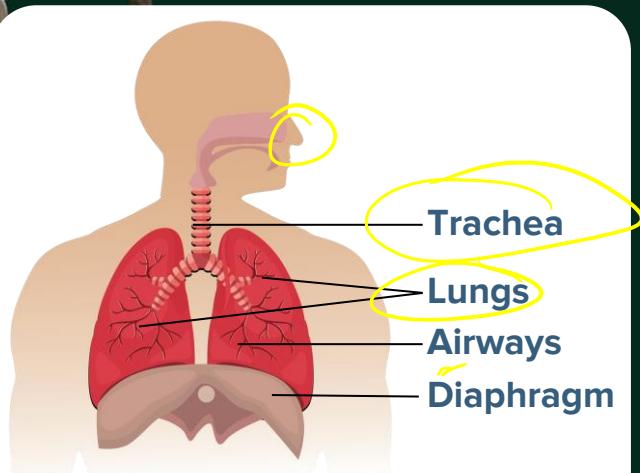
Internal Features

Respiratory System

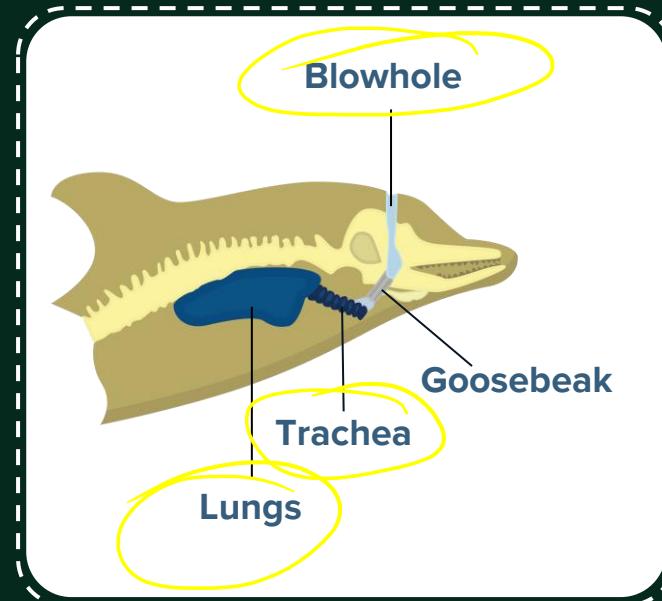
- Lungs
- **Blowholes** - Aquatic mammals



Internal Features



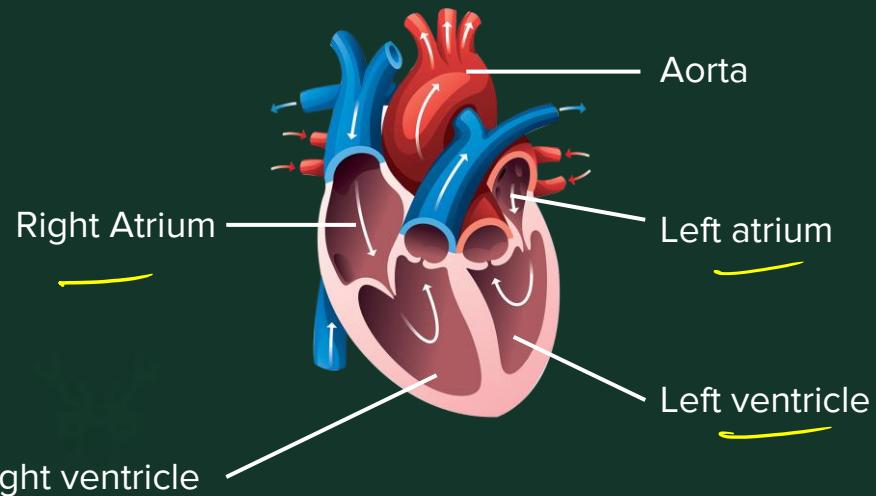
Respiratory System - Lungs



Internal Features

Circulatory System

- 4 - chambered heart

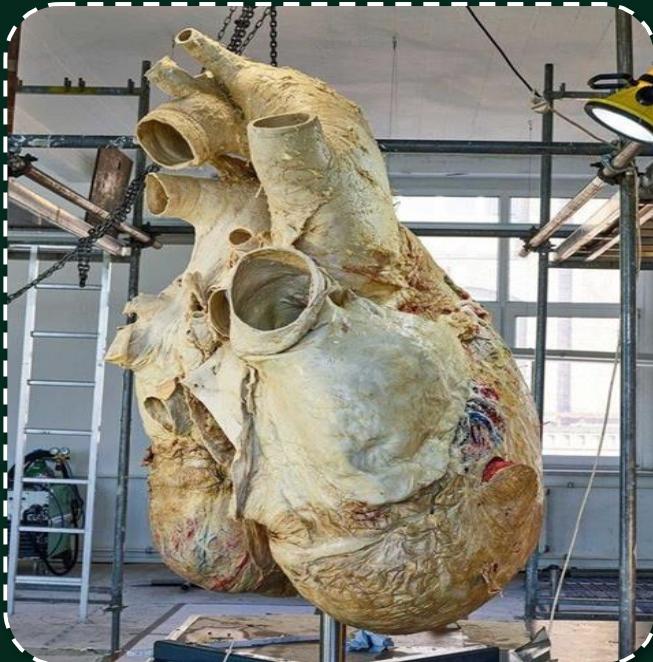


Human Heart



Did You Know?

The **heartbeat** of an adult Blue Whale can be detected from **2 miles** away



Internal Features

Reproduction

- **Unisexual/Dioecious** - Separate sexes



Internal Features

Reproduction

- **Unisexual/Dioecious** - Separate sexes
- **Sexual dimorphism** - Males and Females have distinct appearance

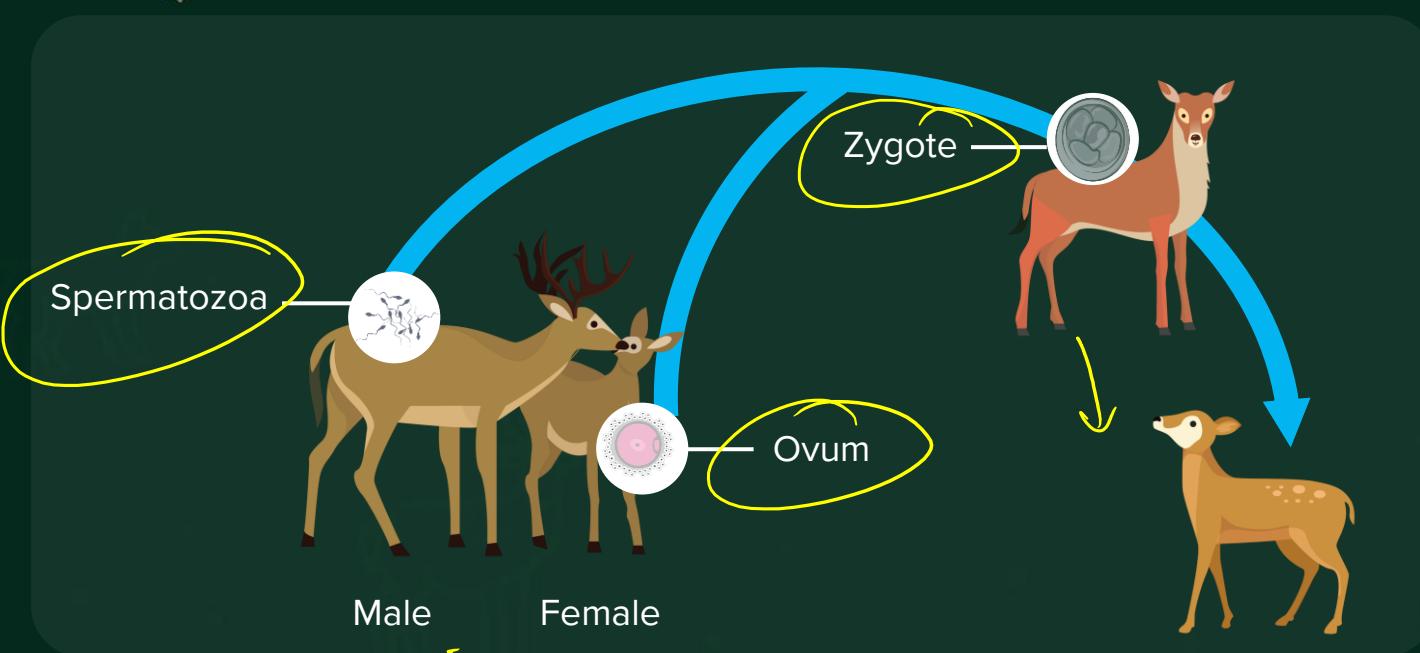
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Internal Features

Reproduction

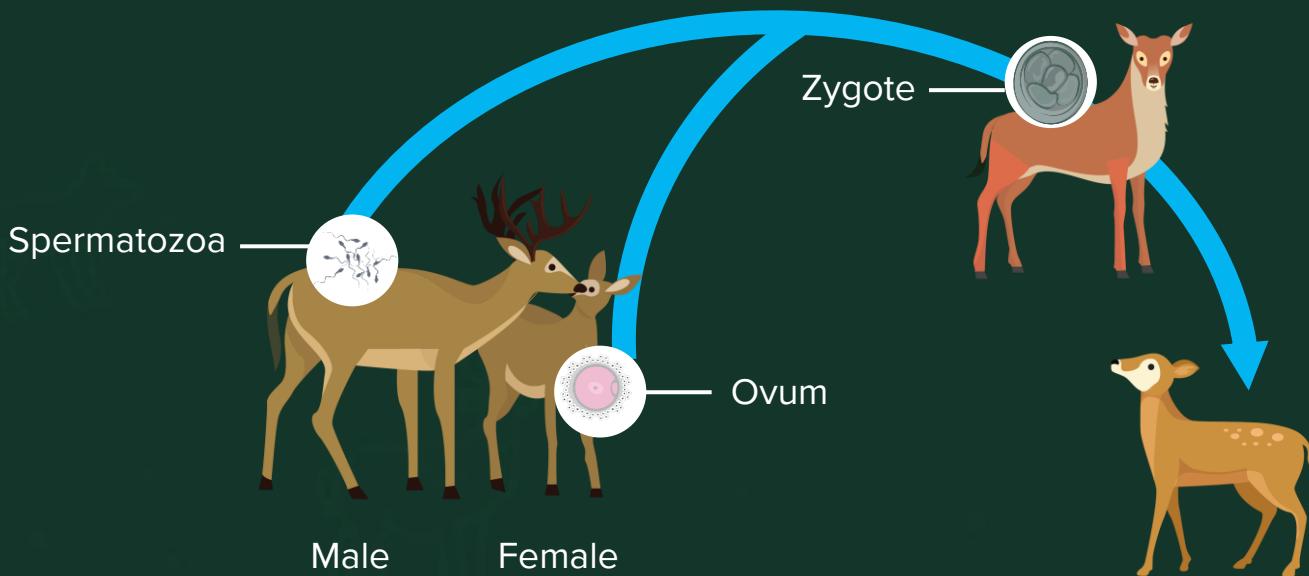
Internal fertilisation



Internal Features

Reproduction

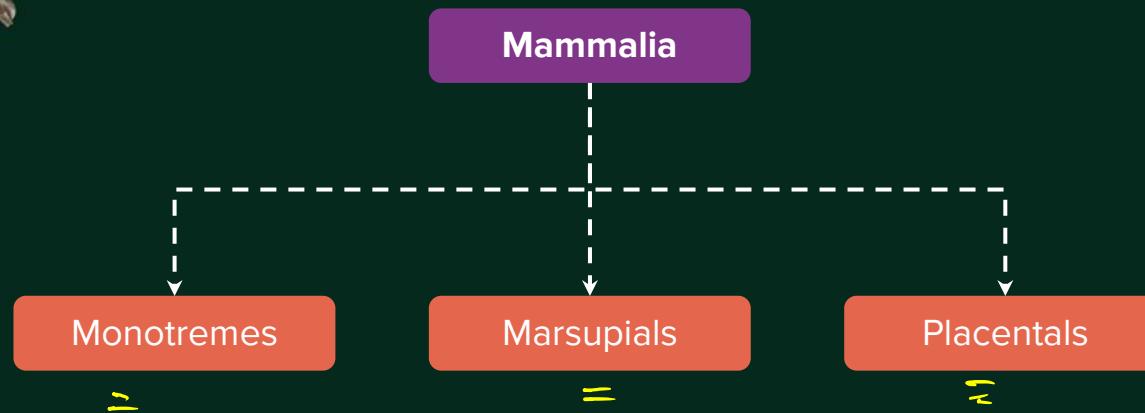
- Internal fertilisation
- Direct development



Classification of Mammals

Classification of Mammals

Based on the how the young ones develop



Monotremes

● **Oviparous** - Lay eggs



Platypus (*Ornithorhynchus*)



Monotremes

- **Oviparous** - Lay **eggs**
- **External development** - Embryo develops outside
the female body



Platypus (*Ornithorhynchus*)



Question Time



Which among the following statements is incorrect about mammals?

- I. External ears or pinnae are present in all mammals without exception.
- II. Teeth are present in jaw sockets.
- III. Presence of hair is unique feature of mammals.
- IV. All mammals are not viviparous.

- a) Only I
- b) Both I and II
- c) Both I and IV
- d) Only IV





Which among the following statements is incorrect about mammals?

- I. External ears or pinnae are present in all mammals without exception.
- II. Teeth are present in jaw sockets.
- III. Presence of hair is unique feature of mammals.
- IV. All mammals are not viviparous.

a) Only I

b) Both I and II

c) Both I and IV

d) Only IV



Marsupials

- **Viviparous** - Give birth to live offspring



Kangaroo (*Macropus*)



Marsupials

- **Viviparous** - Give birth to live offspring
- **Internal development:** Offspring are born immature and develop fully inside the **marsupium** (pouch)



Kangaroo (*Macropus*)



Examples of Marsupials



Koala
(*Phascolarctos cinereus*)



Sugar glider
(*Petaurus breviceps*)



Placentals

- **Viviparous** - Give birth to live offspring



Placentals

- **Viviparous** - Give birth to live offspring
- **Internal development** : Mother carries the foetus in the uterus where it is nourished via the placenta



Examples of a few Placentals



Monkey (*Macaca*)



Tiger (*Panthera tigris*)



Cat (*Felis*)



Did You Know?

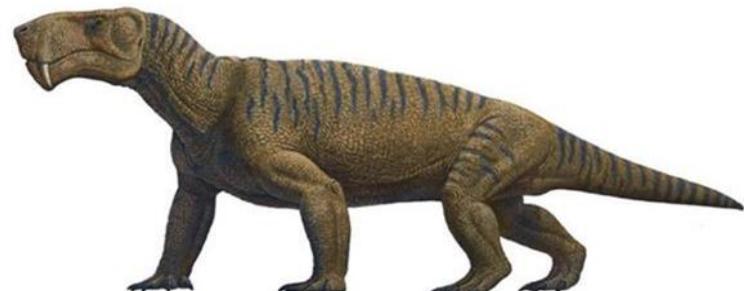




Did You Know?



- Mammals also have Reptilian ancestors
- **Therapsids** are the reptile species from which mammals evolved



Therapsid





KEEP LEARNING

