

LAINAB

TARIQ

BATCH

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National

Officers Academy

Every Day Science

What do you know about the Animal Kingdom?
Differentiate b/w vertebrates and invertebrates with suitable examples?

14 Animal Kingdom:-

Animals is a group of animals which are Multicellular, diploid, heterotrophic, move from place to place at some stage of life show specialized tissues like muscles and nerves.

According to recent reports Kingdom Animalia is comprised of more than half a million (1500,000) spp of animals.

1.2:- Characteristics:-

- They are Eukaryotes
- They are diploid
- They produce haploid gametes (n) i.e. sperm or egg
- They are motile
- The outer most covering of all their cell is a cell membrane

2.1:- Difference b/w vertebrates & invertebrates:-

Vertebrates

These animals which possess a backbone

Definition :-

Complex internal skeleton made of bones or cartilage

Highly developed brain & spinal cord

Mostly medium to large animals

Mostly Sexual Reproduction

closed blood system

- Fishes
- Amphibians
- Reptiles
- Birds
- Mammals

Invertebrates :-

These animals which do not possess back bones.

Body structure :-

simple and no internal skeleton

Nervous System:

less developed nervous system

Size :-

Mostly small animals (except some like Octopus)

Reproduction

Sexual or asexual (like budding, fragmentation)

Blood system

Mostly open blood system

Examples :-

- insects
- Amoebae
- Arthropods
- Worms

"Animals are multicellular organisms that obtain energy by consuming other organisms and show diverse body forms and functions" Campbell biology

Survey of plant and Animal Kingdom a brief survey of plant and animal Kingdom to pinpoint similarities and diversities?

(1) Similarities b/w Plant And Animals:

→ Both are living Organisms

They grow, reproduce, and respond to the environment

→ Both have cells:

Plant and animals are made up of cells, although plant cell have cellwall and chloroplasts while animal cell do not

→ Both need energy:

Plant get energy from sunlight, animals get it from food. But both need energy to survive

→ Both show Adaptations:

Each group has special features to survive in their environment (e.g cactus in desert)

→ Both Maintain internal Balance

They control internal conditions like water temp and nutrients.

(2) Diversity In Nature (how plant And Animals Differ)

plant and animals show huge diversity meaning there is great variety in their structure, lifestyle and roles

Plant

Animals:-

Mode of nutrition
make their own food (autotrophic)

cannot make food; depend on plant or other animals (heterotrophic)

Movement:-
Mostly fixed in one place (sessile)

Actively move from place to place

Body structure
have roots, stem, leaves

have organ like heart, lungs, stomach, muscles

Growth Pattern
Grow throughout life

stop growing after maturity

Sensitivity
Respond slowly (e.g. sunflower turns towards sun)

Respond quickly using their nervous system

Reproduction
seeds, spores, vegetative propagation

Mostly reproduce sexually

Cell structure
Have cell wall & chloroplasts

Do not have a cell wall or chl

Food storage
store food as starch

store food as glycogen

(3) Survey Of Plant Kingdom:-

- 3-1: Algae simple plants found in water (e.g. green algae)
- 3-2: Bryophytes small plants; need water to reproduce (e.g. moss)
- 3-3: Pteridophytes have vascular tissue but produce spores e.g. ferns
- 3-4: Gymnosperm plant with naked seeds (e.g. pine trees)
- 3-5: Angiosperms Flowering plants with fruit e.g. Mango, Rose

(3) 4:- Survey OF Animal Kingdom:-

4.1:- Invertebrates:-

Animals without backbones (e.g insects, jelly fish)

4.2 vertebrates:-

Animal with backbone (e.g fish birds, mammals)

v:- Conclusion

draw the structures as well.....

Together plant and animals maintain the balance of nature. plant produce oxygen and food, while animals depend on them and help in process like pollination and seed dispersal

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