

## Kingdom Animalia:

Amongst the five kingdoms, the largest kingdom is the animal kingdom. Kingdom Animalia is a taxonomic kingdom of living and extinct animals. Members of this kingdom are characterized by being eukaryotic, multicellular, heterotrophic, lacking a cell wall, and mostly are motile.

## Characteristics of kingdom Animalia:

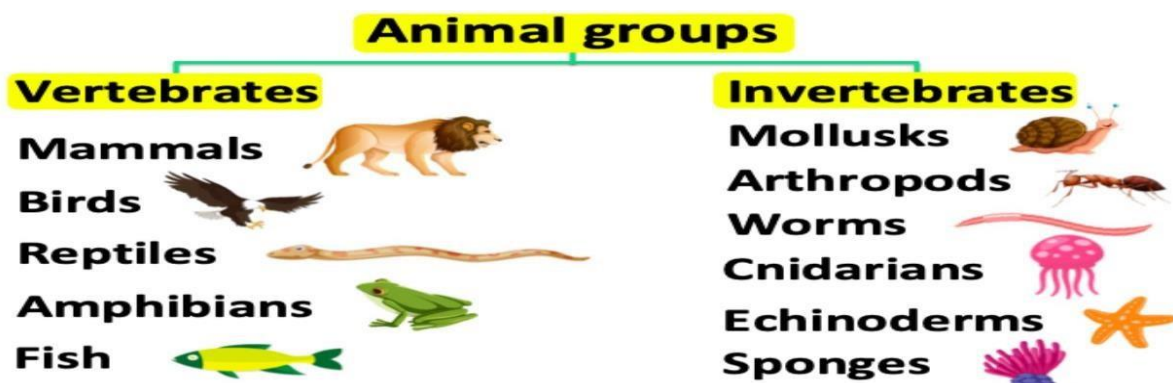
- 1) They can move and so have locomotion.
- 2) They lack a cell wall and plastids.
- 3) They are heterotrophic since they cannot prepare their own food.
- 4) They have excretory and sensory organs, as well as a neurological system.
- 5) Reproduction is generally sexual.
- 6) Example: Pleurobrachia, Hookworm, apple snails, turtles, peacocks, and humans.

## Kingdom Animalia Classification

In general, animals are separated into two groups:

- 1) **Vertebrates** (animals with a backbone)
- 2) **Invertebrates** (animals without a backbone)

They are, however, separated into various phyla.

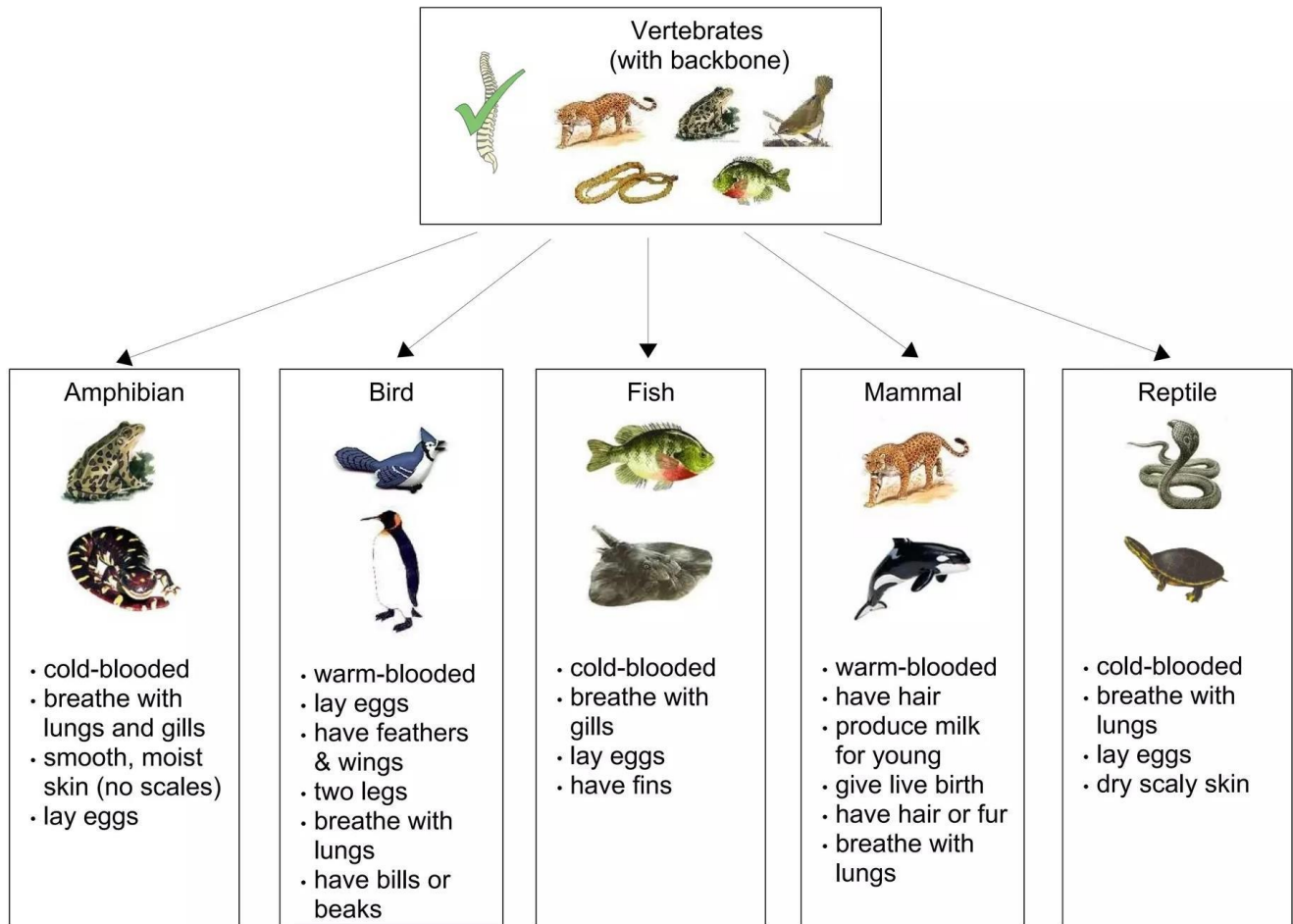


### 1) Vertebrates:

#### Characteristics of Vertebrates:

- 1) They have a backbone,
- 2) They have a nervous system.
- 3) They have a distinct head
- 4) Enclosed circulatory system .
- 5) They mainly reproduce sexually.

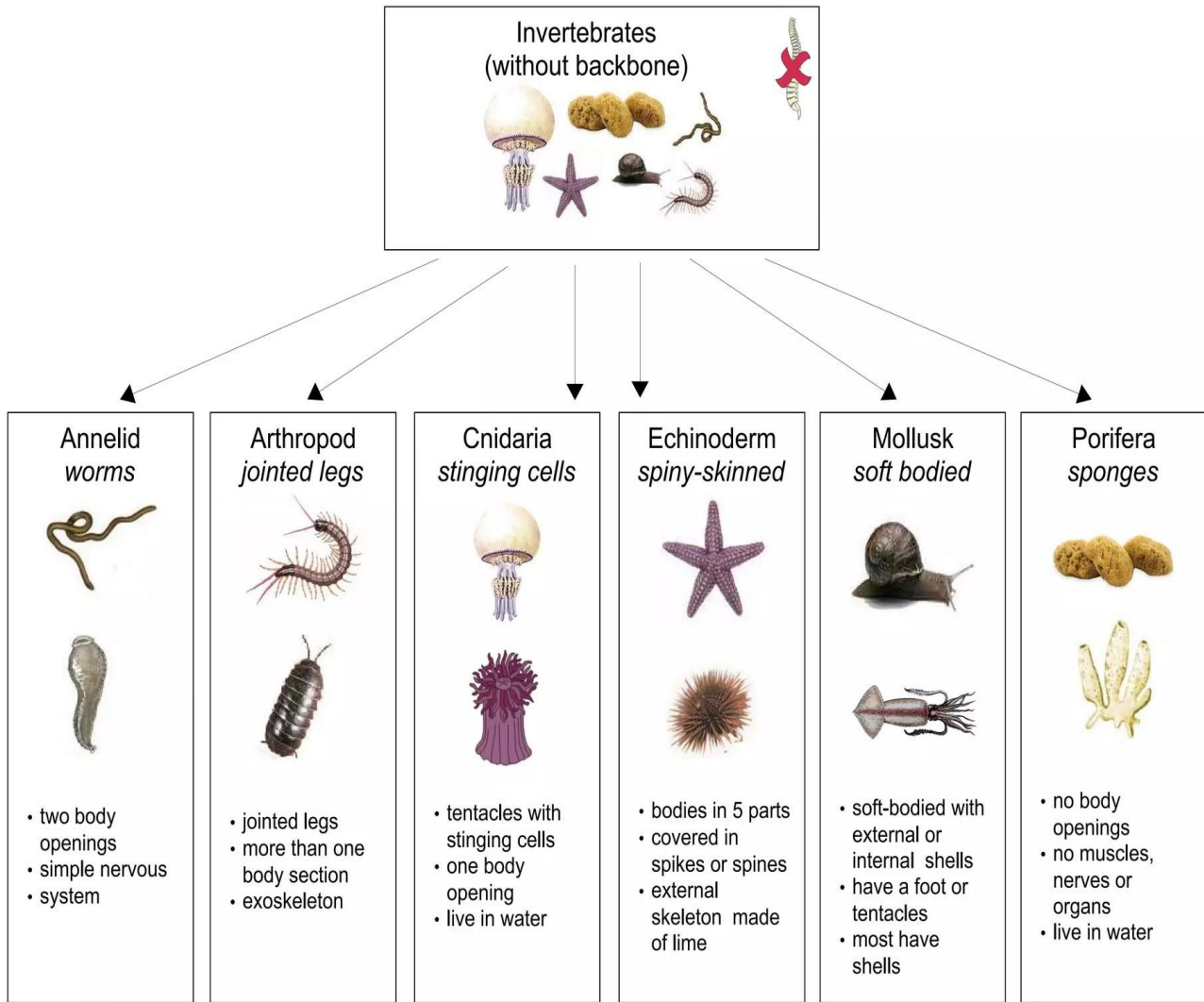
**The five main groups of vertebrates are :**



**2) Invertebrates:**

**Characteristics of Invertebrates:**

- 1) Not have a spinal cord or vertebral column,
- 2) Normally, these are tiny and don't grow very large.
- 3) Do not possess lungs since they respire through their skin.
- 4) Since they cannot produce their own food,
- 5) Invertebrates are heterotrophic.
- 6) Reproduction occurs through fission



	Invertebrates	Vertebrates
1	Not possess a backbone	Possess a backbone and
2	Not possess an internal skeleton	Possess an internal skeleton.
3	Generally smaller than vertebrates.	Generally are comparatively larger than invertebrates
4	They have open circulatory system	They have closed circulatory systems.
5	A majority have compound eyes.	Do not have them compound eyes.
6	Presence of a simple nervous system.	Presence of complex nervous system
7	Mode of nutrition includes Autotrophic, Parasitic and Heterotrophic.	Mode of nutrition is usually heterotrophic
8	Examples : Arthropods, Sponges, Insects, etc.	Examples : Mammals, Fish, Birds, etc.



Table 8.1 Properties of the five kingdoms

Kingdom	Monera	Protista	Fungi	Plantae	Animalia
Cell type	Prokaryotic	Eukaryotic	Eukaryotic	Eukaryotic	Eukaryotic
Cell organization	unicellular	unicellular	Multicellular and unicellular	Multicellular	Multicellular
Cell Wall	Present in most	Present in some absent in others	Present	Present	Absent
Nutritional Class	Phototrophic, heterotrophic or chemoautotrophic	Heterotrophic and phototrophic	Heterotrophic	Phototrophic	Heterotrophic
Mode of nutrition	Absorptive	Absorptive or ingestive	Absorptive	Mostly Absorptive	Mostly ingestive

**Q : Mention two characteristics of kingdom Animalia.**

**Q : Mention three differences between invertebrates and vertebrates**

**Q : Write T (for true) or F(for false) in beside each statement:-**

- 1) All classes of the animal kingdom have a backbone
  - A) True
  - B) **False**
- 2) Arthropods belong to the class of vertebrates
  - A) True
  - B) **False**
- 3) Vertebrates have a complex central nervous system
  - A) **True**
  - B) False
- 4) Vertebrates do not have compound eyes
  - A) **True**
  - B) False

**Q : Choose The Correct Answer**

- 1) Which of the following animals belong to the class of vertebrates?
  - A) Flatworms
  - B) **Reptiles**
  - C) Sponges
  - D) Insects
- 2) Which of the following characteristics do invertebrates possess?
  - A) Backbone
  - B) Closed Circulatory Systems
  - C) **Compound Eyes**
  - D) Internal Skeleton