



CREST Science Olympiad (CSO) Worksheet *for* Class 9



Topic

Classification of Kingdom Animalia



@crestolympiads



info@crestolympiads.com



+91-98182-94134

Worksheet on Classification of Kingdom Animalia

1. **Amphibians have a unique life cycle involving metamorphosis. What is the ecological significance of this life cycle adaptation?**
 - a. Amphibians can survive in both aquatic and terrestrial environments
 - b. Amphibians have a shorter lifespan due to metamorphosis
 - c. Amphibians are less susceptible to predation during metamorphosis
 - d. Amphibians experience reduced competition during their aquatic larval stage.
2. **Researchers conducted an experiment to study the effects of notochord presence on the movement of protochordates. They compared species with retained notochords to those with regressed notochords. What did they likely observe?**
 - a. Species with retained notochords moved more efficiently.
 - b. Species with regressed notochords had better movement.
 - c. Movement was unrelated to notochord's presence
 - d. All protochordate species moved in the same way.
3. **In the context of animal classification, what is the primary characteristic that separates vertebrates from invertebrates?**
 - a. Presence of exoskeleton
 - b. Presence of true coelom
 - c. Presence of a backbone
 - d. Presence of segmented body
4. **Match the classes of animals with their defining characteristics.**

	Column I		Column II
1.	Mammalia	A.	Scales, gills, and streamlined body
2.	Reptiles	B.	Hair, mammary glands, and live birth
3.	Cyclostomata	C.	Scales, lungs, and a 3-chambered heart
4.	Pisces	D.	Jawless vertebrates with an elongated eel-like body and circular mouth

 - a. 1:B, 2:A, 3:C, 4:D
 - b. 1:A, 2:C, 3:B, 4:D
 - c. 1:B, 2:D, 3:A, 4:C
 - d. 1:B, 2:C, 3:D, 4:A
5. **In a comparative study of vertebrate circulatory systems, researchers find that a particular group has a three-chambered heart and exhibits oviparous reproduction. Which group of organisms fits this description?**
 - a. Lamprey, Hagfish, Newt
 - b. Frog, Toad, Salamander
 - c. Whales, Bats, Platypus
 - d. Lizard, Turtle, Chameleon

Answer Key

1. a - The metamorphosis in amphibians allows them to change from aquatic larvae to terrestrial adults. This adaptation is ecologically significant as it enables them to exploit different habitats for feeding and avoiding predators, increasing their chances of survival.
2. a - The notochord provides structural support and the basis for body movement. Species with retained notochords would likely have better movement capabilities compared to those with regressed notochords, as the notochord contributes to their locomotion.
3. c - The primary characteristic that separates vertebrates from invertebrates is the presence of a backbone or vertebral column. Vertebrates belong to the subphylum Vertebrata and have a well-developed internal skeleton made of bone or cartilage, which includes a vertebral column that surrounds and protects the spinal cord. In contrast, invertebrates do not possess a backbone and include a wide variety of animals without this specific feature.
4. d - Mammalia: Hair, mammary glands, and live birth
Reptiles: Scales, lungs, and a 3-chambered heart
Cyclostomata: Jawless vertebrates with an elongated eel-like body and circular mouth
Pisces: Scales, gills, and streamlined body
5. d - Lizard, turtle, and chameleon are all reptiles with a three-chambered heart and exhibit oviparous reproduction, making them the correct choice.

More Questions Coming Soon – Keep Learning!

Difference between Ordinary & Extra-Ordinary is that "Little Extra"

Discover Our Ultimate Prep Kits!

Buy Previous Years Papers

1. Login at www.crestolympiads.com/login
2. Go to Dashboard -> Additional Practice -> Buy



Buy Physical & Digital Workbooks at

<https://www.crestolympiads.com/olympiad-books>



Buy Additional Practice

1. Login at www.crestolympiads.com/login
2. After login, go to Dashboard -> Additional Practice -> Buy



@crestolympiads



info@crestolympiads.com



+91-98182-94134