
ZOOLOGY

Study Guide: Chapters 25-32

The Animal Kingdom - Invertebrates and Vertebrates

Define the following terms.

Amniotic egg	Gizzard	Nematocyst
Closed circulatory system	Invertebrate	Nymph
Coelem	Larva	Placental mammal
Ectoderm	Marsupial	Pupa
Ectotherm	Mesoderm	Sessile
Endoderm	Metamorphosis	Symmetry
Endotherm	Molting	Vertebrate
Gestation	Monotreme	Exoskeleton

Draw a picture of a fish that illustrates the following terms

Anterior	Dorsal	Endoskeleton
Lateral	Posterior	Ventral

Chapter 25 - What is an Animal

1. Describe the three main characteristics of Animals.
2. Trace the developmental plan of animals from fertilization to gastrula. Describe each phase briefly.
3. Name an animal that is sessile. What is the disadvantage of being sessile?
4. For each of the following types of symmetry, describe the appearance, then give an example.
asymmetry - radial symmetry - bilateral symmetry

Chapter 26 - Sponges - Cnidarians

5. Explain the difference between external and internal fertilization. Which would be more efficient?
6. Nematocyst, what is it good for?
7. Do the Analyzing data lab on page 674 .

Chapter 27 - Mollusks and Worms

8. Explain why cephalopods are effective predators.
 9. Do the Issues in Biology reading on page 700.
 10. After reading about parasitic worms, why have you been taught to wash your hands before you eat?
 11. What is the advantage of segmentation?
 12. Explain why earthworms are an important part of the soil ecosystem.
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Chapter 28 - Arthropods and Echinoderms

13. What are two features of arthropods that make them distinct?
14. Describe the advantages and disadvantages of exoskeletons.
15. Distinguish between spiders and insects.
16. Compare complete and incomplete metamorphosis. Give an example of each.

Chapter 29 - Comparing Invertebrates

17. What makes Echinoderms closely related to the chordates?
18. Complete the chart comparing the Invertebrate phylums.

Chapter 30 - Invertebrate Chordates, Fish and Amphibians

19. What are the structures of fish that make them well adapted to their environment?
20. Describe the events or conditions on Earth that may have led amphibians to make the move to land.
21. Name two ways amphibians depend on water.

Chapter 31 - Reptiles and Birds

22. What was the most important adaptation of reptiles that enabled them to make a complete break from water?
23. Draw a picture of an amniotic egg, and then label the various parts.
24. Explain the current view on the origin of birds.

Chapter 32. - Mammals

25. How have the characteristics of mammals enabled them to adapt to most habitats on Earth?
 26. What might be an explanation for why marsupials are so concentrated in, and monotremes are found only in Australia?
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