

Invertebrates – Textbook Assignment

Read Nelson Biology pages 300-309, then answer the following questions.

1. What are the characteristics of animals?
2. What is the difference between vertebrates and invertebrates?
3. Why is the evolution of body cavities important for the development of more complex animals?
4. What is cephalization, and how could it help with animal survival and evolution?
5. What is the largest phylum of invertebrates?
6. What are the common characteristics of Porifera?
7. What are the common characteristics of Cnidaria?
8. What are the major evolutionary steps from Porifera to Cnidaria?

Read Nelson Biology pages 311-316, then answer the following questions:

1. What are the major evolutionary adaptations from Cnidarians to Platyhelminthes?
2. How are the phyla Nematoda more complex? What organ systems are beginning to develop, and how are they an evolutionary adaptation?

Read Nelson Biology pages 322-342, then answer the following questions:

1. What is a coelom and how is it an important adaptation that led to increasingly complex animals? Be specific.
2. What is the major difference between the Nematoda and Annelida worms?

3. Complete the following table:

	Flatworms	Roundworms	Segmented Worms
Examples			
Habitat			
Body plan			
Reproduction			
Circulation			
Digestion			
Nervous system			

4. What is the common body plan and general characteristics of the phylum Mollusca?

5. What is the most complex group of mollusk? Provide a list of common characteristics and evolutionary adaptations.

6. What adaptations have occurred in the phylum Arthropoda?

7. What key feature separates arthropods from all other animals? Describe this feature. How might it help survival for these animals?

8. What subphyla has Arthropoda been divided into? Provide examples and common characteristics for each.

9. Describe the water vascular system found in Echinodermata.