

## Annelids (p. 651 – 656)

### I. The First Segmented Animals

p 651

1. Earthworms are members of the phylum Annelida.

2. What type of worms are annelids?

Circle One :            Acoelomates            Coelomates            Pseudocoelomates

*(Body cavity located entirely within mesoderm)*

3. Where do two-thirds of annelid species live? ocean

4. What is the size range of annelids? Less than mm - 3 meters

5. What is the defining characteristic of annelids?

They are segmented

6. Circle the letter of each organ located in annelid segments.

One-way →

- a. Digestive *(mouth - pharynx - esophagus - crop - gizzard - intestine - anus)*
- b. Excretory *(nephridia)*
- c. Circulatory *(aortic arches, dorsal + ventral blood vessels)*
- d. Muscular *(circular + longitudinal)*

7. Which type of circulatory system do annelids possess?

Circle One :            Open Circulatory System            Closed Circulatory System

8. Match the earthworm anatomical terms with the correct definitions. *(Up Close p. 655)*

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- |   |  |
|---|--|
| <p>1. <u>K.</u> Cerebral Ganglion</p> <p>2. <u>B.</u> Ventral Nerve Cord</p> <p>3. <u>E.</u> Septum</p> <p>4. <u>J.</u> Setae</p> <p>5. <u>F.</u> Clitellum</p> <p>6. <u>C.</u> Pharynx</p> <p>7. <u>H.</u> Esophagus</p> <p>8. <u>A.</u> Crop</p> <p>9. <u>J.</u> Gizzard</p> <p>10. <u>L.</u> Aortic Arches</p> <p>11. <u>D.</u> Blood Vessels</p> <p>12. <u>G.</u> Nephredia</p> | <p>A. Stores food for digestion.</p> <p>B. Connects segments to cerebral ganglion.</p> <p>C. Muscular part that draws soil into the mouth.</p> <p>D. Transmits blood; run dorsal &amp; ventral lengths.</p> <p>E. Internal wall separating segments.</p> <p>F. Thickened glandular ring; secretes a mucous ring.</p> <p>G. Excretory structure that eliminates wastes.</p> <p>H. Connects the pharynx to the crop.</p> <p>I. Tiny external bristles located on each segment.</p> <p>J. Thick, muscular structure that grinds up soil.</p> <p>K. Primitive brain located in the anterior end.</p> <p>L. Set of 5 thickened muscles that pump blood.</p> |
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9. Define the term parapodia.

Parapodia - fleshy appendages of marine sandworms

II. Annelid Groups

p. 653

1. What type of annelids belong to the Class Polychaeta?

Marine sandworms

2. Polychaetes are the largest group of annelids.

Circle One :  True  False

3. Which type of environments do polychaetes inhabit? All ocean habitats

4. How are parapodia useful to polychaetes?

Swim, burrow, crawl (↑ surface area for gas exchange)

5. List three types of polychaetes.

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1. Nereis (sandworm) 2. Tube worms 3. Feather Dusters

6. What type of annelids belong to the Class Oligochaeta?

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Earthworms

\* Toss up 15 tons of soil per acre per year

7. Circle the letter of the sentence that is false concerning earthworms.

- a. Earthworms lack parapodia, a distinctive head region, and eyes.
- b. They do not have setae. (small in size)
- c. An earthworm is sensitive to light and touch.
- d. As earthworms burrow through soil, they aerate and fertilize the soil.

Fluid-filled coelom

8. Which type of skeleton do earthworms possess?

Circle One :  Endoskeleton  Exoskeleton  Hydrostatic Skeleton

9. What are the two major groups of body muscles in earthworms called?

1. Longitudinal 2. Circular  
(Peristalsis - contraction of muscles)

10. What type of annelids belong to the Class Hirudinea?

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Leeches

11. Circle the letter of each sentence that is true about leeches.

- a. They suck blood and body fluids from their hosts.
- b. Leeches have ~~many~~<sup>no</sup> setae and parapodia.
- c. They are typically external parasites.
- d. Leeches have been used to perform microsurgery.

\* Can swallow 10X weight in blood  
\* Slow digestion (200 days)