

Part 5. The digestive system.

18. The digestive tract, or **alimentary canal**, runs from the mouth to the anus. It consists of a number of recognizable regions that you should be able to identify.
19. The **oral cavity** extends from the mouth through the first three segments. In segments 4 and 5 the thick-walled **pharynx** is seen. The long, narrow **esophagus** is located from segment 6 to segment 14 and is usually covered in part by the **seminal vesicles** (reproductive system) and the hearts.
  - (k) What is the functional difference between the pharynx and the esophagus?
20. The **crop** is located in segments 15 and 16 while the very muscular gizzard is found in segments 17 and 18. The intestine usually commences in segment 19.
  - (l) Describe the roles of the crop, gizzard, and intestine.
  - (m) How far does the intestine extend?
  - (n) What percent of the digestive tract is the intestine?
21. Cut open the crop, the gizzard, and the intestine. Note their internal appearance.
  - (o) Record the internal appearance of these organs.

### Questions for Application and Further Research

1. How can you distinguish between the dorsal and ventral sides of the earthworm? The anterior and posterior ends?
2. How does an earthworm breathe? What evidence from the lab supports this method?
3. What kind of symmetry is illustrated by the earthworm? Explain.
4. What is the role of the clitellum in an earthworm?
5. The earthworm is a hermaphrodite. Is it self-fertilizing? Explain.
6. Why is the earthworm considered a valuable member of the terrestrial ecosystem?
7. Humans are segmented. Do we have the equivalent of a septum?
8. During and following a rainstorm, many earthworms are observed on the grass, and on roads and sidewalks. Why?

