

Earthworm Dissection Pre Lab

Name: _____ Period: _____ Date: _____

Before dissection, watch the Earthworm video and use the matching guide headings. Video times below are approximate.

Meet the Earthworm

An annelid body plan

1. [Video 3:20–3:35] What phylum does the earthworm belong to?

2. The annelids are considered ____ worms. _____

Materials

3. Name 6 of the materials required:

Work Safely

4. What two safety items must you wear when working with preserved worms?

5. What must you do before leaving the lab? _____

External anatomy

Orient your specimen

6. [Video 6:21–6:38] Which is the darker surface? _____

7. [Video 4:58–5:08] What is the external landmark we use on the earthworm?

8. Is the clitellum located closer to the anterior or posterior end? _____

Segments and setae

9. What are the individual segments called? _____

10. What genus does the earthworm we are dissecting belong to? _____

11. What are the tiny bristles called? _____

Draw what you see

12. What are the nine labels required on the external drawing?

Open, observe, identify

Open the dorsal body wall

13. What side of the worm faces up when placed in the tray? _____

14. What is the function of the clitellum? _____

15. Where is the first “shallow snip” made? _____

16. [Video 12:56–13:12] What dissecting instrument is used to separate the septa?

17. After pinning both ends dorsal side up, what is the next step? _____

18. Describe the cut that is to be made to the worm, what instrument is to be used?

Internal Landmark

19. Once the worm is opened and pinned, what internal landmark are you identifying? _____

Follow the digestive pathway

20. List the digestive organs in order from mouth to anus:

21. In approximately which segments is the pharynx located? _____

22. In approximately which segments is the crop located? _____

23. In approximately which segments is the gizzard located? _____

Circulation and Excretion

24. Is the worm's circulatory system open or closed? _____

25. Where do you find the dorsal blood vessel? _____

26. How many pairs of aortic arches are present? _____

27. Describe what the nephridia look like: _____

28. What is the body cavity called? _____

Reproduction and Nervous System

29. What are animals with both male and female reproductive organs within the same animal called?

30. What are species with separate male and female individuals called? _____

31. Describe the seminal vesicles. In approximately which segment region are they found?

32. Describe what the brain looks like. _____

33. Describe how nerves pass from the brain to the ventral nerve cord. _____

34. What should you do to be able to view the ventral nerve cord? _____

35. When you finish the dissection, how do you dispose of your worm? _____

36. You will be required to locate these external features on your drawing of the earthworm.

- a. Dorsal, Ventral, Anterior, Posterior, Mouth, Anus, Clitellum, Setae, Metameres

37. You will be required to locate these internal features on your drawing of the earthworm.

- a. Brain (cerebral ganglia), Pharynx, Esophagus, Septa, Aortic arches (hearts), Seminal vesicles, Crop, Gizzard, Anterior intestine ("stomach"), Intestine, Dorsal blood vessel, Ventral nerve cord, Nephridia, Coelom