

## *Invertebrate Worksheet*

1. What are invertebrates?
2. Name the phyla of invertebrates and members of each phyla.

### *Sponges*

5. Sponges have no basic body arrangement and are said to be \_\_\_\_\_.
6. Sponges live attached to one spot as adults so they are \_\_\_\_\_.
7. Sponges reproduce asexually by internal or external \_\_\_\_\_ and by \_\_\_\_\_ whenever a piece of a sponge breaks off. This last method helps sponges form \_\_\_\_\_.
8. Sponges reproduce sexually also and are \_\_\_\_\_ producing both eggs and sperm. Sponges \_\_\_\_\_ sperm with each other and do not fertilize their own eggs.

### *Cnidarians*

9. The phylum Cnidaria includes what organisms?

10. Cnidarians all have \_\_\_\_\_ symmetry and \_\_\_\_\_ or arms that have stinging cells called \_\_\_\_\_. These stinging cells shoot out like a \_\_\_\_\_ and contain a \_\_\_\_\_ that can kill or paralyze their prey.

11. Cnidarians have a simple nerve \_\_\_\_\_ and can reproduce both \_\_\_\_\_ and \_\_\_\_\_.

### ***Flatworms***

12. Flatworms are in the phylum \_\_\_\_\_ and are flattened \_\_\_\_\_ with \_\_\_\_\_ symmetry.

13. Flatworms are said to be \_\_\_\_\_ because of their solid body.

### ***Nematodes***

14. \_\_\_\_\_ are in the phylum Nematoda and are \_\_\_\_\_ in shape and \_\_\_\_\_ at both ends.

15. Roundworms have \_\_\_\_\_ symmetry. They are found in \_\_\_\_\_.

16. The roundworm called *Trichinella* causes the disease \_\_\_\_\_ and is picked up when someone eats \_\_\_\_\_. This disease affects the \_\_\_\_\_ and \_\_\_\_\_.

### ***Rotifers***

17. Rotifers are \_\_\_\_\_ worms found in terrestrial & aquatic habitats.

18. Rotifers have separate \_\_\_\_\_, but some species reproduce by \_\_\_\_\_.

## *Mollusks*

19. Name several organisms in the phylum Mollusca.

20. Mollusks have a durable shell made of \_\_\_\_\_ and are found \_\_\_\_\_.

21. Mollusks have \_\_\_\_\_ symmetry and a \_\_\_\_\_ containing their body organs. Mollusks also have a muscular \_\_\_\_\_ for movement which can be modified into arms or \_\_\_\_\_.

22. Mollusks have a \_\_\_\_\_ heart and an \_\_\_\_\_ circulatory system.

23. Mollusks reproduce \_\_\_\_\_ and go through a free swimming larval stage called the \_\_\_\_\_.

## *Annelids*

24. Annelids are \_\_\_\_\_ worms found in \_\_\_\_\_.

25. Give two ways that segmentation is an advantage for an organism.

26. Annelids show \_\_\_\_\_ by having bilateral symmetry with an anterior head where most sense organs are found.

## *Arthropods*

27. Arthropod means \_\_\_\_\_ appendages.

28. Give 5 characteristics of all arthropods.

29. What is the exoskeleton of arthropods composed of?

30. What is meant by an open circulatory system?

31. Insects with \_\_\_\_\_ metamorphosis go through egg, larva, pupa, & adult stages; while those with incomplete metamorphosis go through \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ stages.

32. Give examples of insects with complete and incomplete metamorphosis.

## *Echinoderms*

33. Give some examples of echinoderms.

34. Echinoderms have an \_\_\_\_\_ made of movable or fixed calcium plates called \_\_\_\_\_, \_\_\_\_\_ symmetry with a \_\_\_\_\_ part body plan, no \_\_\_\_\_ or \_\_\_\_\_ as adults, and extendable \_\_\_\_\_ for movement.

35. Echinoderms reproduce asexually by \_\_\_\_\_ or sexually with \_\_\_\_\_ fertilization.