Cardiovascular System Worksheet

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Cardiovascular System Overview:

1. What are the two main functions of the cardiovascular system?
2. Which organism has the most efficient heart?
3. Fish
4. Human
5. Butterfly
6. Worm

1. What is the function of the atria?
2. What is the function of the ventricle?
3. Do all organisms have to have a heart consisting of an atrium and a ventricle?
4. Identify which orgasm does NOT have a heart consisting of at least one atrium and at least one ventricle.
5. Bird
6. Human
7. Frog
8. Sand dollar
9. Does the heart replenish or deplete oxygen in the bloodstream?
10. Which organism has a three-chambered heart?
11. Lizard
12. Bird
13. Octopus
14. Fish
15. Which gas present in blood is essential to life?
16. Give an example of an organism that does NOT have an actual heart.

Sean’s Phylums:

1. What is the name of the blood vessels that carry blood away from the heart in humans?
2. What is the name of the blood vessels that carry blood to the heart in humans?
3. What is the name of the smallest blood vessels in the human body?
4. How much can a blue whale weigh?
5. How many chambers does a bear heart have?
6. How many rings are in the circulatory system of the starfish?
7. Do sand dollars have a cardiovascular system?
8. The sea cucumber possesses a water vascular system. What is the other system named?
9. What is the color of the sea cucumber in the upper photo on the page?
10. What process do almost all porifera go through?
11. What is the exception to question #10?
12. Is the sea cucumber like a cucumber consumed by humans?
13. Echinoderms are animals found where: On land or in water?

Kraig’s Phylums:

1. A Gastrovascular system consists of all the following except:
   1. Cardiovascular System
   2. Endocrine System
   3. Digestive System
   4. Respiratory System
2. The gastrovascular system functions by:
3. Absorbing nutrients into the gastrovascular cavity, where they are collected, and have the internal structures bathe in the nutrients
4. Digesting food along a central digestive system, and having nutrients dispersed throughout the blood stream
5. Absorbs nutrients necessary to survive and diffuses them into the blood stream
6. None of the above
7. Because Cnidarians only have the gastrovascular cavity for the intake and excretion of materials:
8. Food cannot be continuously processed because it has to be excreted through the mouth
9. It is grinded up and kept within the body until fully depleted
10. All materials are absorbed and there is no need for excretion
11. It makes it easier for the constant digestion of food
12. Platyhelminthes and Nematodes have a similar system to the Cnidarians, but they:
13. Have a respiratory system
14. Have a digestive system
15. Receive nutrients through simple diffusion
16. None of the above
17. Nematodes can receive an abundance of nutrients through other methods, because a large majority of nematodes are:
18. Parasitic
19. Self-sufficient
20. Large predators
21. Micro-organisms
22. The phylum Platyhelminthes is solely comprised of:
23. Roundworms
24. Flatworms
25. Medusa
26. Polyps
27. Platyhelminthes are restricted to their flat shape because:
28. The environment they live in
29. The lack of a cardiovascular or respiratory systems
30. Evolutionary changes
31. They are unable to sustain higher pressures
32. Jellyfish and sea anemones are very similar because:
33. The environment in which they live
34. The structural similarities in their anatomy
35. The same life cycle they share that develops from a polyp into a medusa
36. All of the above
37. The Loa Loa worm is very different in behavior to other parasitic worms because:
38. It tends to burrow across the eyeball
39. This worm can be very lethal
40. The worm is very common throughout the world
41. The Loa Loa does not lay eggs in its host
42. Because of the phylum Nematode’s shape and parasitic nature, they absorb their host’s nutrients by:
43. Sucking them out of the intestinal wall of the host
44. Bathing in the intestinal liquids and lets nutrients diffuse into them
45. Eating the innards of it’s host
46. Attaches itself to the vital organs
47. When heartworm is found within the heart, and they continue to reproduce and create more, the real threat is:
48. They eat your heart
49. They absorb too much blood so there is not enough left for it’s host
50. It can clog up the pulmonary arteries of the heart
51. Cause backflow of blood within the body
52. Jellyfish and polyps maintain structure through a gel in between the inner and outer layers called:
53. Gastrodermis
54. Epidermus
55. Mesoglea
56. Exoderm
57. In corals they use an exoskeleton to protect themselves, as well as maintain shape, which is called:
58. Calcium carbonate
59. Fossilization
60. Epidermus
61. Mesoglea

David’s Phylums:

1. What organism has three hearts?
2. Why do octopuses need to maintain such high blood pressure?
3. How does the earthworm contribute to human livelihood?
4. It works on Wall Street
5. It fertilizes the soil that we farm
6. It gives off oxygen
7. It destroys parasites in the ground
8. What is the name of the pair of muscles that is attached to the walls of the chamber of the heart in grasshoppers?
9. What is the largest phylum in the Animal Kingdom?
10. How many document species of annelids exist?
11. What special structure does an apple snail have that helps it to regulate blood pressure?
12. How many pairs of aortic arches does an earthworm have?
13. What two things do the aortic arches in an earthworm connect?
14. What is the usual heart rate of an adult lobster?
15. 50-100 bpm
16. 30-75 bpm
17. 50-136 bpm
18. 100-250 bpm
19. Which phylum contains species that have exoskeletons?
20. Phylum Anthropoda
21. Phylum Cnidaria
22. Phylum Annelida
23. Phylum Mollusca
24. What are the exoskeletons of species in Phylum Anthropoda made of?
25. What is the name of an octopus’ main heart?
26. Which organism has remained unchanged for millions of years?
27. Crocodile
28. Human
29. Lobster
30. Horseshoe crab