Earthworms

[1] Have you ever seen an earthworm? It has a long, cylindrical body that tapers off at both ends. When you pull the wriggling worm from beneath the soil, can you tell right away which side has its head and which side marks its tail? Well, though the task seems difficult, there is a trick to solving the mystery. You see, of the two ends, one is more pointed than the other. The sharper end is the earthworm's anterior or head-end, whereas the blunter end is its posterior or tail-end.

[2] But, what if you think both tips appear identical to you? Don't worry; here is another helpful clue. An adult earthworm has a distinct, swollen, slightly light-colored band on its body. We call it a clitellum (pronounced "klei-TE-lem", plural: clitella.) The two regions on either side of the clitellum are not the same length. The tip of the shorter region is the animal's anterior.

[3] Earthworms are the so-called annelids or segmented worms because their bodies are divided into numerous segments or sections. They cannot see, hear, or smell. Yet, the shortcomings do not seem to bother them one bit! To find their way around underground, earthworms rely on sensory devices, called prostomia (singular: prostomium [pronounced "pro-STO-mee-am"]) near their mouths and sensory receptors in their skin to detect light and feel vibration.

[4] Earthworms have two layers of muscles in each segment -- the outer one is circular and the inner one longitudinal. Through a series of coordinated contractions and expansions of these muscles, they are able to move forward. While in locomotion, earthworms use setae (pronounced "see-tee", singular: seta) as anchors to help them get a good grasp of the ground or their burrows' walls. Setae are tiny bristles. Earthworms have four pairs of setae in each of their segments except the first and last.

[5] Earthworms have a small brain and five hearts. They dine on decaying organisms in the soil. When hungry, they ingest large amounts of earth with their mouths. As the soil passes through their digestive system, they absorb the food and discard the residue.

[6] Perhaps the most amazing aspect about earthworms is how they reproduce. As hermaphrodites (pronounced "her-MA-fre-daits"), earthworms possess both male and female reproductive organs. When two earthworms huddle together with their heads pointing to different directions, they fertilize each other's eggs. While the mating takes place, earthworms use their clitellum to secrete a cocoon to protect their fertilized eggs. Later on, they deposit the egg case in the soil and leave it unattended. Baby earthworms hatch after several weeks. Albeit much smaller, they look just like their parents!

[7] By burrowing earth continuously, earthworms loosen, stir up, and aerate the soil. Since they make lands more fertile, they indirectly help improve the growth of plants.

[8] Surely, we all know what earthworms do, but we often overlook their contribution. Just for fun, let's picture what the world would be like if there were suddenly no trace of them. First of all, moles, birds, and many other animals that love to dine on earthworms would immediately go hungry. Secondly, the soil we rely on so much for growing vegetation would become poor, making plant-eating animals such as cows starve.

[9] Indeed, the scenario and its consequence sound extreme, but they signify how important and critical earthworms are to the animal kingdom!

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1. Which of the following about earthworms is correct?
   (A) Like centipedes, earthworms have a pair of legs on each of their segments.
   (B) Earthworms dine on decaying organisms in the soil.
   (C) The outer layer of earthworms' muscle is longitudinal.
   (D) Earthworms have four pairs of setae on each of their segments.

2. Earthworms are segmented worms.
   (A) False
   (B) True

3. What do earthworms eat?
   (A) Mice
   (B) Insects
   (C) Frogs
   (D) Decaying organisms

4. The end farther from an earthworm's clitellum is the animal's posterior.
   (A) False
   (B) True

5. If an earthworm has 100 segments in its body, how many pairs of setae does it have?
   (A) 396
   (B) 392
   (C) 400
   (D) 402

6. Which of the following statements about earthworms is **not** correct?
   (A) They can detect light.
   (B) They cannot see.
   (C) They do not have brains.
   (D) They cannot smell.

7. How many hearts does an earthworm have?
   (A) Five
   (B) Four
   (C) Two
   (D) Three

8. Which of the following is **not** a correct earthworm terminology?
   (A) Clitellum, its head
   (B) Prostomium, the sensory device near its mouth
   (C) Setae, its bristles
   (D) Posterior, its tail-end

9. What is a hermaphrodite?
   (A) An animal with no reproductive organ
   (B) An animal with only a female reproductive organ
   (C) An animal with only a male reproductive organ
   (D) An animal with both a male and a female reproductive organ

10. How does an earthworm make a cocoon to house its eggs?
    (A) It uses its mouth to blow a cocoon and puts its eggs inside.
    (B) It collects bits of leaves to create a cocoon and hides its eggs inside.
    (C) It uses its silk glands to spin a cocoon and wraps its eggs inside.
    (D) It uses its clitellum to produce a cocoon and places its eggs inside.