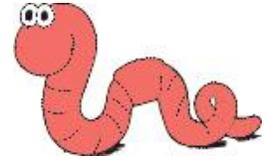


## Essential Question: Who speaks for Nature?

**Act 3: Natural History of the Red worm.** The red wiggler is an incredibly important part of our ecosystem, but it is actually an invasive species transported from Europe in the soil of plants settlers brought over! Thus, the red worm has brought both positive & negative factors into our environment.

Let's learn more about these fascinating creatures! Use complete sentences reflecting the questions.

1. How many species of earthworms are there? \_\_\_\_\_



2. How many of the earthworm species are important to cultivation? \_\_\_\_\_

3. What type of food do red worms need to survive? \_\_\_\_\_

3. What niche are red worms? (omnivore, carnivore, decomposer, producer, herbivore) \_\_\_\_\_

4. What percent protein does the average earthworm contain? (By the way, corn fed cows average about 58% or higher) \_\_\_\_\_

5. How can robins detect earthworms? \_\_\_\_\_

6. Adaptation: What adaptation do worms have that allows them to detect robins, or other birds of prey? \_\_\_\_\_

7. Tell what underground dwelling mammal is a major earthworm predator AND explain how this predator stores worms for later consumption? (eating) \_\_\_\_\_

8. Why does tilling (turning over) the soil reduce the earthworm population? \_\_\_\_\_

“Without the work of the humble worm, who knows nothing of the benefits he confers upon mankind, agriculture, as we know it, would be very difficult, if not wholly impossible” CHARLES DARWIN ON EARTHWORMS, 1881

**Student Review:** 1-Below Standard, 2-Approaching Standard, 3-Standard, 4-Above Standard  
Use the scale to evaluate completeness & correctness of the job. Put score, Initial & date in boxes.

Score

Initial/Date

9. Adaptation: What adaptations do earthworms have that allows the species to survive long periods of freezing weather? \_\_\_\_\_  
\_\_\_\_\_

10. How can you tell male earthworms apart from females? \_\_\_\_\_  
\_\_\_\_\_

11. **Challenge EC** How does a worm produce an egg case? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

12. Adaptation: What adaptation do earthworms have that allows them to breathe without lungs? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

13. Why do earthworms come to the surface when it rains? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

14. What is earthworm urine good for? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

15. What valuable elements do earthworms release to the soil? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

16. Survival: What three factors limit earthworm population growth? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

17. **Challenge EC:** Why are dry leaves not a good food for earthworms? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_