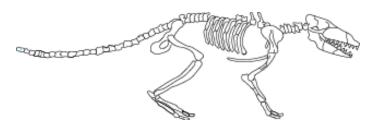


Tennessee Sample Questions 4th Grade Science

- 1. Which property of light causes white light to separate into different colors?
 - **A** absorption
 - **B** reflection
 - **C** refraction
 - **D** transparency
- 2. *Pakicetus* is an ancient four-footed land mammal that lived about 50 million years ago. The study of *Pakicetus* fossils indicates that it lived close to an ocean. The image shows a fossil of *Pakicetus*, and the table lists several characteristics of its body.



Body Part	Characteristics
skull	similar to a whale's head
ear bone	similar to ear bone present in whales
ankle bone	similar to ankle bone present in some hoofed mammals
tail	strong, used for swimming in water

Based on the information, what can be inferred about *Pakicetus*?

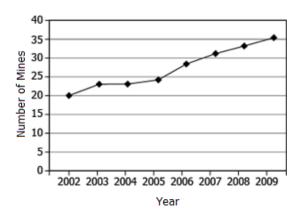
- **A** Pakicetus is an ancient relative of whales.
- **B** *Pakicetus* evolved into amphibians.
- **C** Pakicetus was the last land mammal on Earth.
- **D** Pakicetus and whales evolved at the same time.

3. In a food chain, an owl eats a mouse.



Which term best describes the role of the owl in the food chain?

- **A** consumer
- **B** decomposer
- **C** prey
- **D** producer
- 4. A student observes a graph that shows the number of coal mines in a region over several years.



The student finds that the region experiences several environmental impacts during the same time span, as shown in the chart.

- 1. Pollution increases in a stream and a lake.
- There are increases in breathing problems among citizens who work in the coal mines.
- 3. There is a decrease in the amount of rainfall.
- 4. Forest cover in the region decreases.

Which impacts are *most likely* a result of the information shown in the graph?

- A 2 and 3 only
- **B** 3 and 4 only
- **C** 1, 2, and 3
- **D** 1, 2, and 4