Unit B Chapter 4 Section Review Answers

Section 4.1

1. What organisms were alive in the past and how they lived, and how Earth’s environment has changed
2. The heat of molten rock destroys traces of plants and animals, but organisms may be preserved in layers of sediment
3. Tree rings show wet and dry years. Ice cores show how the air has changed and when volcanic eruptions occurred
4. The environment was probably a tropical shoreline
5. The hard parts of water organisms, such as shells, bones, and teeth, drop to the bottom and get covered by sediment in layers over time
6. A tree ring, because you could find trees dating back to 1620, and their rings would provide climate information

Section 4.2

1. You can tell the relative age of rock layers because sedimentary rock forms in layers, with the oldest at the bottom and the youngest at the top
2. When index fossils are found in a layer of rock, the approximate age of the rock can be determined from the index fossil’s age.
3. Particular radioactive elements always break down at the same rate into the same other form
4. A flat-screen digital TV is newer than a black-and-white TV but their exact ages are unknown.
5. When the lunch bell rings and when a parent comes home from work
6. 300 million years old

Section 4.3

1. The forces of change on Earth today are the same as those in the past. For example, volcanoes erupt today, just as they did in the past.
2. It measures Earth’s history by dividing it into intervals of time based on major changes.
3. For most of Earth’s history, no plants or animals existed
4. Quaternary period, Cenozoic era, Phanerozoic eon
5. No, because dinosaurs became extinct about 65 million years ago and the first modern humans appear in the fossil record only about 100,000 years ago
6. If no extinction had occurred, dinosaurs might still dominate the land. The current age might still be known as the Age of Reptiles