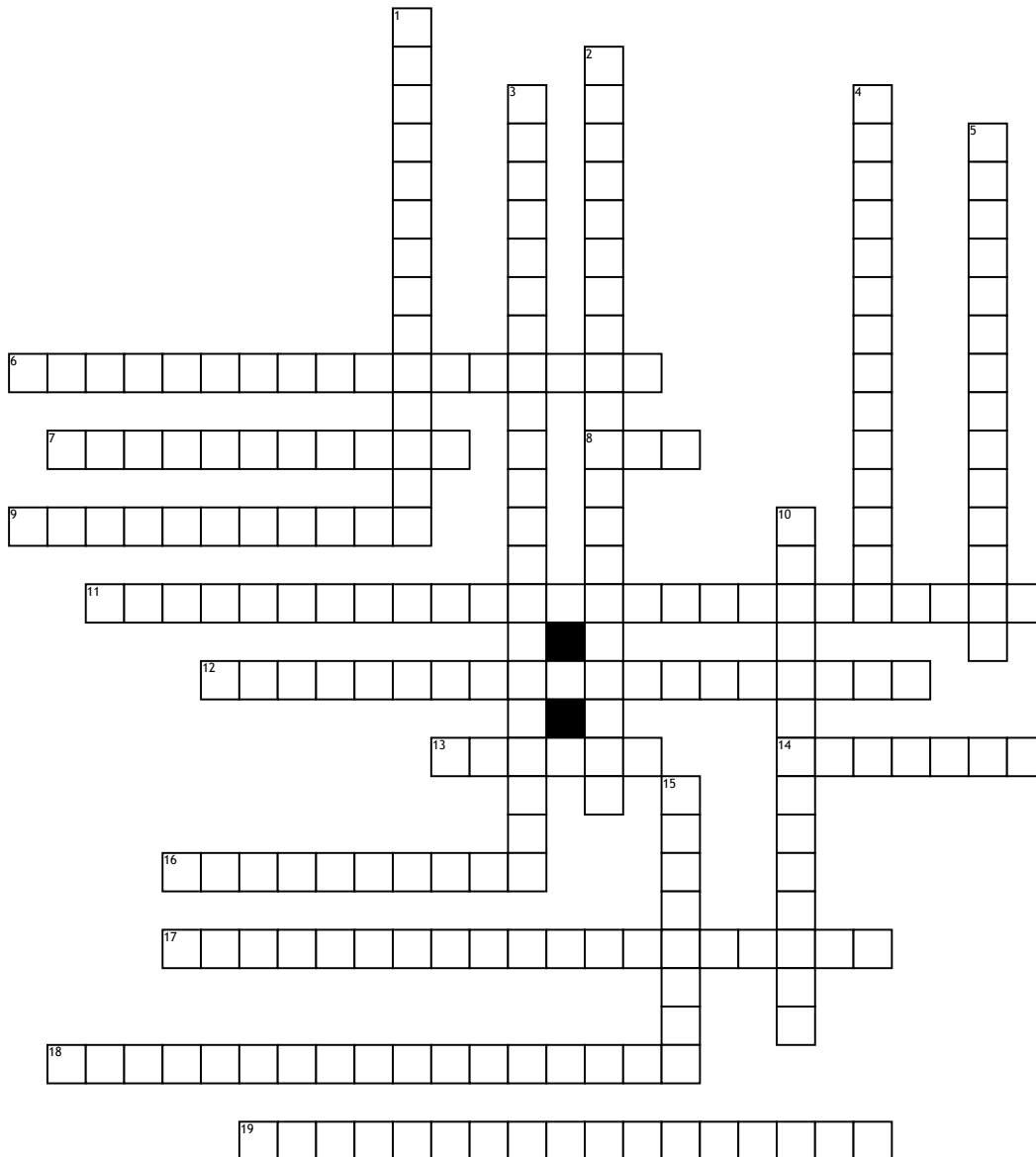


# chapter 19



## Across

6. the method for determining the age of a sample from the amount of a radioactive isotope to the non-radioactive isotope of the same element in a sample.  
 7. A distinctive fossil that is used to compare the relative ages of fossils.  
 8. A major division of geologic time; usually divided into two or more periods.  
 9. The process by which two species evolve in response to changes in each other over time.  
 11. The changes in anatomy, phylogeny, ecology and behavior that take place in clades larger than a single species.  
 12. The theory that proposes that eukaryotic cells formed from a symbiotic relationship among several different prokaryotic cells.

13. A division of geologic time into which eras are subdivided.

14. Refers to when a species has died out and has no living members.  
 16. the evolution of a species by gradual accumulation of small genetic changes over long periods of time.  
 17. The process by which unrelated organisms independently evolve similarities when adapting to similar environments.  
 18. A timeline used to represent Earth's history.  
 19. Process by which a single species or a small group of species evolves into several different forms that live in different ways.

## Down

1. An event during which many species become extinct during a relatively short period of time.  
 2. Extinction caused by slow and steady process of natural selection.  
 3. The pattern of evolution in which long stable periods are interrupted by brief periods of more rapid change.  
 4. A scientist who studies fossils.  
 5. The method of determining the age of a fossil by comparing its placement with that of fossils in other rock layers.  
 10. The geologic processes, such as continental drift, volcanoes, and earthquakes, resulting from plate movement.  
 15. The length of time required for half of the radioactive atoms in a sample to decay.