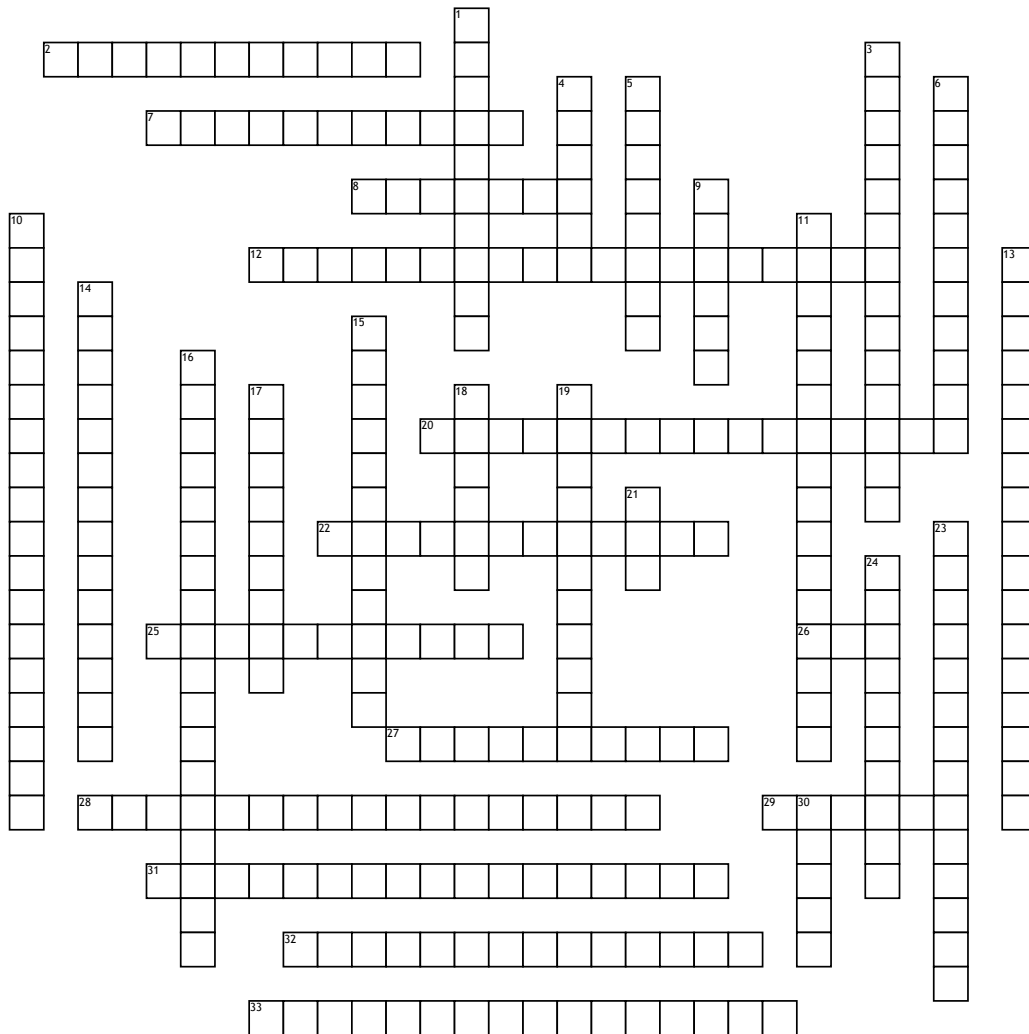


# Origins of Life



**Across**

- 2. era that began 245 million years ago, known as the age of the dinosaurs
- 7. a fossil found in a narrow time range but widely distributed around the earth; used to date rock layers
- 8. the most specific classification of living things
- 12. the standard method used to divide the Earth's long natural history into manageable parts
- 20. survival of the fittest organisms that are the best adapted to their environment and the ones that will live long enough to reproduce and pass on their favorable adaptations
- 22. the complete body of fossils that shows how species and ecosystems change over time.
- 25. era that began about 66 million years ago, known as the "Age of Mammals"
- 26. a unit of geologic time that includes two or more periods
- 27. the process of becoming a fossil
- 28. the process by which the age of a rock is determined by measuring the amount of radioactive isotopes present in the rock or rock sample
- 29. a subdivision of the eras in geologic time
- 31. the boundary between two tectonic plates that are moving away from each other.

- 32. occurs when a large proportion of the earth's species go extinct in a relatively short period of time.
  - 33. theory that states that the gradual shifting of Earth's plates causes continents to change their global positions over time
- Down**
- 1. The evolutionary termination of a species caused by the failure to reproduce and the death of all remaining members of the species; the natural failure to adapt to environmental change.
  - 3. the theory that explains how large pieces of the Earth's outermost layer called tectonic plates move and change shape.
  - 4. evidence of past life preserved in rock.
  - 5. the time needed for half of a sample of radioactive substance to undergo radioactive decay.
  - 6. the matching up of rock layers from different locations
  - 9. an explanation that ties together many hypothesis and observations.
  - 10. the boundary formed by the collision of two lithospheric plates
  - 11. the process in which a radioactive isotope tends to break down into a stable isotope of the same element or another element.
  - 13. the method used for absolute dating.

- 14. uses information about rock layers and the fossil record to determine the age relationships between rocks
- 15. gaps in the rock record.
- 16. states that the oldest rocks lie on the bottom and the youngest rocks are on top of any undisturbed sequence of sedimentary rocks.
- 17. the change in population of a species over time.
- 18. was a naturalist who proposed and provided scientific evidence that all species of life have evolved over time from common ancestors through the process he called natural selection.
- 19. a fossilized mark that is formed in soft sediment by the movement or actions of an animal.
- 21. the largest division of geologic time
- 23. any method of measuring the age of an event or object in years. the actual age for a rock or mineral
- 24. a trait that increases the chances that an organism will survive and reproduce
- 30. a subdivision of a geologic period

**Word Bank**

- |                      |                   |                       |                    |                     |              |
|----------------------|-------------------|-----------------------|--------------------|---------------------|--------------|
| relative dating      | fossilized        | continental drift     | fossil             | unconformity        | evolution    |
| fossil record        | absolute dating   | geological time scale | darwin             | natural selection   | theory       |
| era                  | epoch             | mass extinction       | divergent boundary | convergent boundary | index fossil |
| law of superposition | plate tectonics   | half life             | species            | radiometric dating  | trace fossil |
| radioactive dating   | radioactive decay | cenozoic era          | adaptation         | mesozoic era        | correlation  |
| eon                  | period            | extinction            |                    |                     |              |