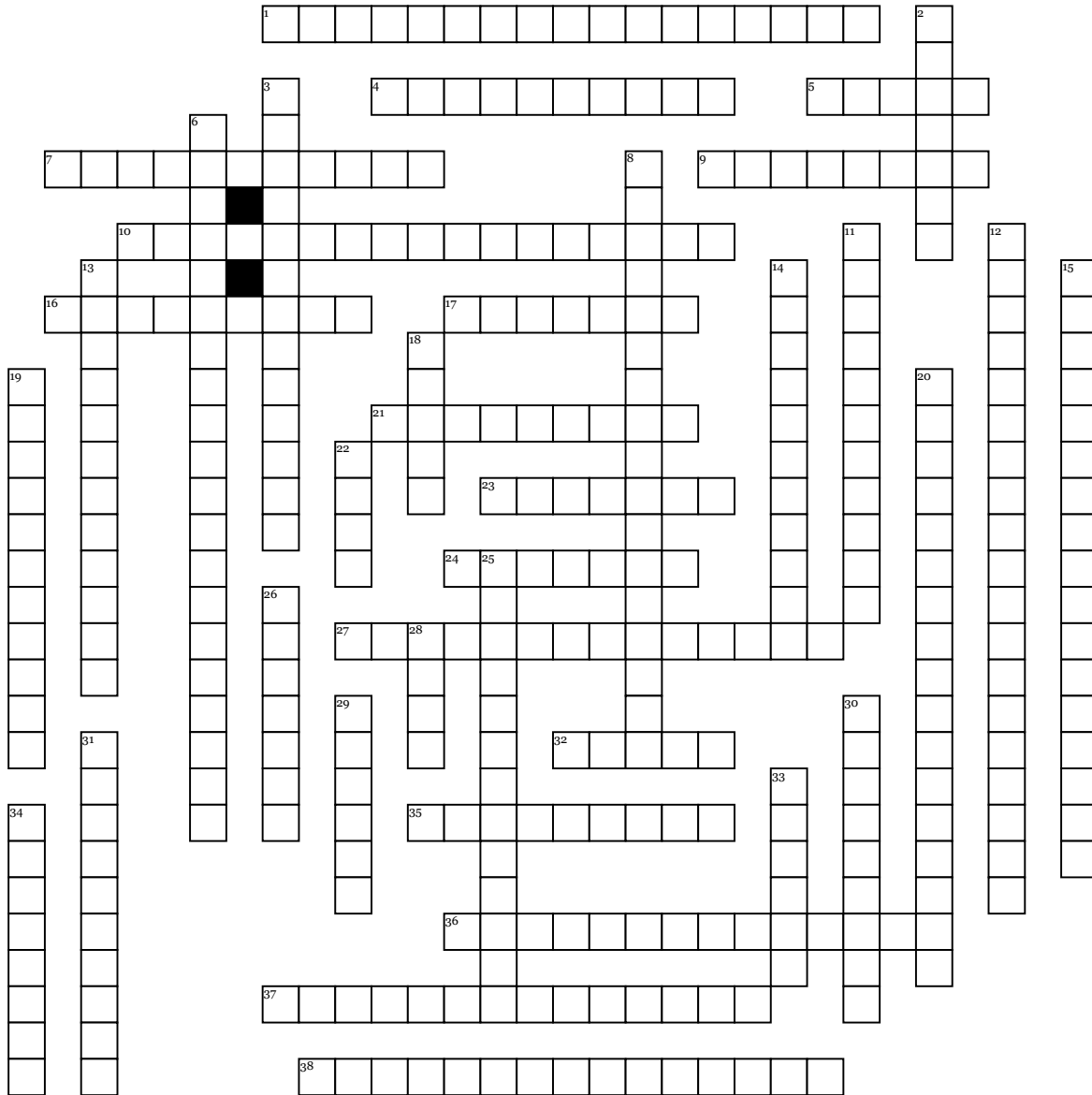


Mystery Geologist



Across

- 1. when two plates move past each other horizontally
- 4. the strong, lower part of the mantle
- 5. a crack that forms when large blocks of rock break and move past each other
- 7. the outermost, rigid layer of Earth
- 9. when the magma chamber under a volcano empties, the roof of the magma chamber may collapse and leave an even larger, basin-shaped depression
- 10. when two plates move away from each other
- 16. the solid, dense center of our planet
- 17. the trace or remains of an organism that lived long ago, most commonly preserved in sedimentary rock
- 21. the liquid layer of Earth's core
- 23. a location where a column of extremely hot mantle rock, mantle plume, rises through the asthenosphere
- 24. a single large landmass made of all the continents, 245 million years ago
- 27. determining whether an object or event is older or younger than other objects or events
- 32. melted rock below Earth's surface
- 35. the resistance of a liquid material, like lava, to flow
- 36. pieces the lithosphere is divided into
- 37. large-scale movements of Earth's lithosphere
- 38. this forms when rock layers are squeezed together and pushed upward, usually at a convergent boundary

Down

- 2. any place where gas, ash, or melted rock come out of the ground
- 3. the law that states younger rocks lie above older rocks if the layers have not been disturbed
- 6. when two plates collide
- 8. the process proposed by scientists to explain the age and magnetic patterns of sea-floor rocks
- 11. a fossilized structure that formed in sedimentary rocks by animal activity on or in soft sediment
- 12. this forms when tension makes the lithosphere break into many normal faults
- 13. a break in the geologic record that is made when rock layers are eroded or when sediment is not deposited for a long period of time
- 14. the process by which rocks change shape when under stress
- 15. this forms when melted rock erupts onto Earth's surface, at convergent boundaries or hot spots
- 18. the outermost solid layer of Earth
- 19. ground movements that occur when blocks of rock in Earth move suddenly and release energy
- 20. the principle that states that geologic processes that happened in the past can be explained by current geologic processes
- 22. an opening of a volcano

- 25. a layer of weak or soft mantle that is made of rock that flows slowly
- 26. a long cylinder of ice that scientists collect by drilling into icecaps
- 28. magma that has reached Earth's surface
- 29. an opening or depression at the top of a volcano caused by eruptions
- 30. this is located directly above the focus on Earth's surface
- 31. the movement of matter that results from differences in density caused by variations in temperature
- 33. is located between the core and the crust
- 34. a series of extremely long waves that can travel across the ocean at speeds up to 800 km/h, caused by an earthquake under the ocean