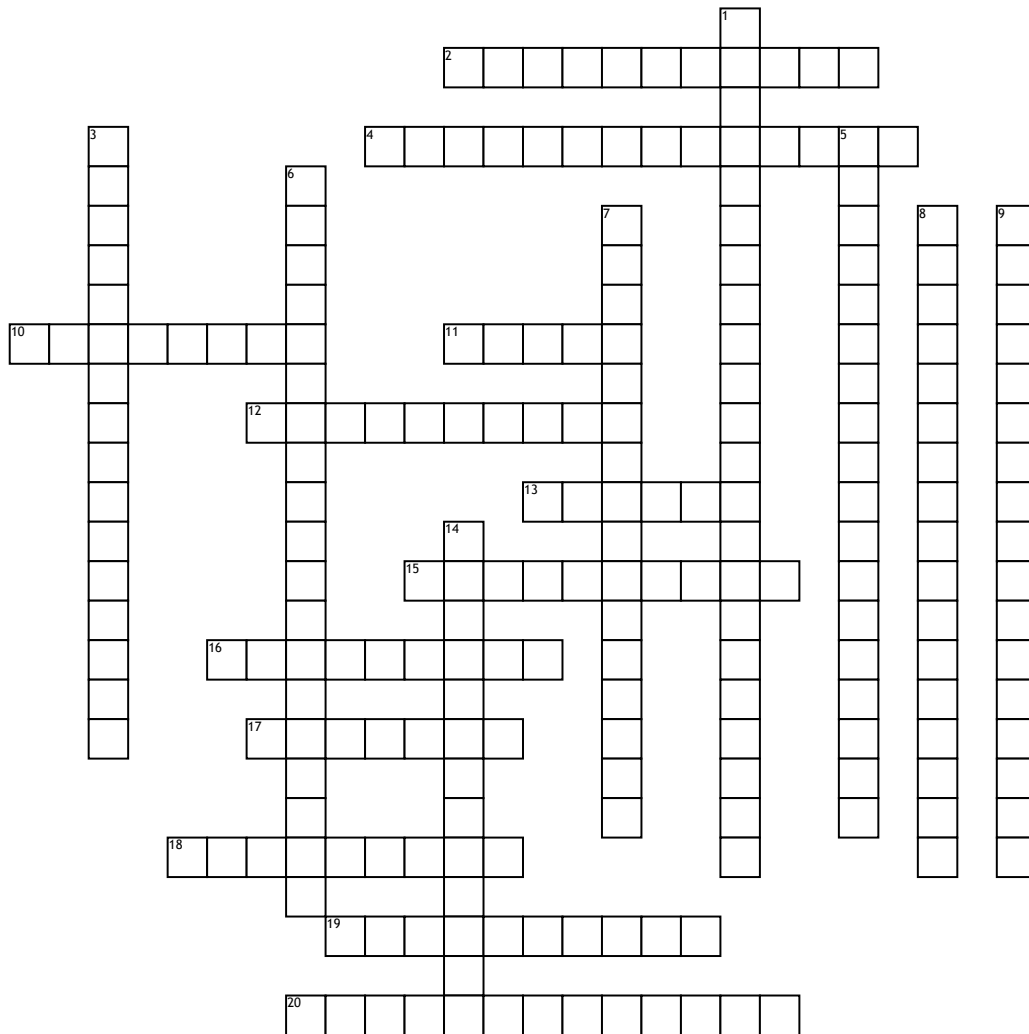


Plate Tectonics



Across

2. The _____ is the solid, outer part of the Earth. The _____ includes the brittle upper portion of the mantle and the crust, the outermost layers of Earth's structure. It is bounded by the atmosphere above and the asthenosphere (another part of the upper mantle) below.
4. _____ is the theory that Earth's outer shell is divided into several _____ that glide over the mantle, the rocky inner layer above the core. The plates act like a hard and rigid shell compared to Earth's mantle.
10. _____ are volcanic regions thought to be fed by underlying mantle that is anomalously hot compared with the surrounding mantle. Their position on the Earth's surface is independent of tectonic plate boundaries.
11. a _____ is the outermost layer of a planet. The _____ of the Earth is composed of a great variety of igneous, metamorphic, and sedimentary rocks. The _____ is underlain by the mantle. The upper part of the mantle is composed mostly of peridotite, a rock denser than rocks common in the overlying _____.
12. _____ occurs when particles with a lot of heat energy move and take the place of particles with less heat energy.
13. is the part of the earth between the core and the the crust is the _____. It is about 1,800 miles(2,900 km) thick and makes up nearly 80 percent of the Earth's total volume.
15. A _____ is a linear shaped lowland between several highlands or mountain ranges created by the action of a geologic rift or fault. A _____ is formed on a divergent plate boundary, a crustal extension or spreading apart of the surface, which is subsequently further deepened by the forces of erosion.

16. The _____ is the very center of the Earth, and the hottest part of the planet. It is a mainly a solid ball with a radius of about 1,220 km (760 mi), according to seismological studies. ... The _____ is more than 5,000 kilometers below the earth's surface.

17. _____ is the name given to the supercontinent that existed during the Paleozoic and Mesozoic eras, before the process of plate tectonics separated each of the component continents into their current configuration. The name was coined by Alfred Wegener, chief proponent of Continental Drift in 1915.

18. The _____ of the Earth is a liquid layer about 2,260 km thick composed of iron and nickel which lies above the Earth's solid inner core and below its mantle. Its _____ boundary lies approximately 2,890 km (1,800 mi) beneath the Earth's surface.

19. _____ is a geological process that takes place at convergent boundaries of tectonic plates where one plate moves under another and is forced to sink due to gravity into the mantle.

20. A zone of the earth's mantle that lies beneath the lithosphere and consists of several hundred kilometers of deformable rock. Origin of _____.

Down

1. _____ that Earth's outer shell is divided into several _____ that glide over the mantle, the rocky inner layer above the core. The _____ act like a hard and rigid shell compared to Earth's mantle.

3. _____. A change in the Earth's magnetic field resulting in the magnetic north being aligned with the geographic south, and the magnetic south being aligned with the geographic north. Also called geomagnetic reversal.

5. _____. A tectonic boundary where two plates are moving toward each other. If the two plates are of equal density, they usually push up against each other, forming a mountain chain. If they are of unequal density, one plate usually sinks beneath the other in a subduction zone.

6. _____ are places where plates slide sideways past each other. At _____ lithosphere is neither created nor destroyed. Many _____ are found on the sea floor, where they connect segments of diverging mid-ocean ridges. California's San Andreas fault is a _____.

7. _____ was a theory that explained how continents shift position on Earth's surface. Set forth in 1912 by Alfred Wegener, a geophysicist and meteorologist, _____ also explained why look-alike animal and plant fossils, and similar rock formations, are found on different continents.

8. _____ are flowing fluid that is moving because there is a temperature or density difference within the material. Because particles within a solid are fixed in place, _____ are seen only in gases and liquids.

9. _____. A tectonic boundary where two plates are moving away from each other and new crust is forming from magma that rises to the Earth's surface between the two plates.

14. A _____ or is an underwater mountain range, formed by plate tectonics.

Word Bank

lithosphere
subduction
plate tectonics
Mantle
hot spots

crust
theory of plate tectonics
asthenosphere
pangaea
divergent boundary

transform boundaries
convection
outer core
continental drift
mid-ocean ridge

inner core
convergent boundary
magnetic reversal
rift valley
convection current