Chapter 02 Test Bank – Static Key

1. Identify all of the types of plate boundaries that are associated with active volcanism.

X Divergent
x Ocean-Ocean Convergent
__ Transform
__ Continent-Continent Convergent
x Ocean-Continent Convergent

Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Diagram the three types of plate boundaries.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

2. Identify all of the different observations Alfred Wegener used to support his theory of continental drift.

__ Seafloor magnetic anomalies.
x Geographic fit of the continents.
x Studies of fossil plants and animals.
__ Dipping zones of earthquakes at ocean trenches.
x Patterns of glaciation.
__ Shallow earthquakes along transform faults.
X Matching bodies of rock on either side of the Atlantic.
x Alignment of mountain ranges when the Atlantic is closed.
__ High heat flow at oceanic ridges

Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Review the evidence in a written summary Alfred Wegener used to support his hypothesis of continental drift and the evidence supporting plate tectonics.
Section: 02.02 History of a Theory: Continental Drift
Topic: History of a Theory: Continental Drift

3. Identify all of the different observations used to support Harry Hess' theory of seafloor spreading.

x Seafloor magnetic anomalies.
__ Geographic fit of the continents.
__ Studies of fossil plants and animals.
x Dipping zones of earthquakes at ocean trenches.
__ Patterns of glaciation.
x Shallow earthquakes along transform faults.
__ Matching bodies of rock on either side of the Atlantic.
__ Alignment of mountain ranges when the Atlantic is closed.
x High heat flow at oceanic ridges.

Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Understand the evidence for seafloor spreading.
Section: 02.03 Evidence for a New Theory: Seafloor Spreading
Topic: Evidence for a New Theory: Seafloor Spreading

4. Earth's inner core is liquid whereas its outer core is solid.

FALSE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Sketch Earth's internal structure and label the thickness of each region.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

5. The refraction and shadow patterns of seismic P-waves and S-waves indicate the dimensions and properties of Earth's layers.

TRUE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Explain how seismology has provided critical data for modeling Earth's interior.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

6. Shear waves do not pass through a solid-liquid boundary between Earth's layers. Compressional waves can pass this type of boundary.

TRUE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Explain how seismology has provided critical data for modeling Earth's interior.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

7. Oceanic-type crust is more dense than continental-type crust.

TRUE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Sketch Earth's internal structure and label the thickness of each region.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

8. The continental landmasses are less dense than the mantle and are buoyed up by depressing the underlying mantle.

TRUE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Sketch Earth's internal structure and label the thickness of each region.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

9. The midocean ridges and rises are spreading centers where new oceanic crust is created.

TRUE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Diagram the three types of plate boundaries.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

10. The thickness of deep-sea sediments increases with distance from a spreading center.

TRUE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Discuss evidence in support of seafloor spreading.
Section: 02.03 Evidence for a New Theory: Seafloor Spreading
Topic: Evidence for a New Theory: Seafloor Spreading

11. The largest lithospheric plate is the Pacific plate.

TRUE

Accessibility: Keyboard Navigation
Blooms: 1. Remember

Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Identify the major plates.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

12. The edge of an active continental margin bordered by a deep-sea trench is wide and shallow with deep deposits of land-derived sediments.

FALSE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Diagram the three types of plate boundaries.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

13. Volcanic activity associated with subduction zones is more gentle and less explosive than volcanic activity associated with hot spots and midocean ridges.

FALSE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Explain the relationship between volcanism and plate tectonics.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

14. The steeper profile of the Mid-Atlantic Ridge compared to the East Pacific Rise indicates that the Mid-Atlantic Ridge is the faster spreading center.

FALSE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Diagram the three types of plate boundaries.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

15. The age of the seamounts from Hawaii to Midway Island increases in age from east to west.

TRUE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Describe how hotspots create island chains.
Section: 02.05 Motion of the Plates
Topic: Motion of the Plates

16. The North Atlantic Ocean was the first modern ocean to open during the breakup of Pangaea.

FALSE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Review the evidence in a written summary Alfred Wegener used to support his hypothesis of continental drift and the evidence supporting plate tectonics.
Section: 02.02 History of a Theory: Continental Drift
Topic: History of a Theory: Continental Drift

17. Isostatic columns of crustal material produce equal pressures deep within the mantle.

TRUE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Sketch Earth's internal structure and label the thickness of each region.

Section: 02.01 Earth's Interior
Topic: Earth's Interior

18. The San Andreas fault is an example of a transform fault.

TRUE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Diagram the three types of plate boundaries.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

19. Epicenters are points on Earth's surface directly above a hot spot.

FALSE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Explain how seismology has provided critical data for modeling Earth's interior.
Section: 02.03 Evidence for a New Theory: Seafloor Spreading
Topic: Evidence for a New Theory: Seafloor Spreading

20. Deep Earthquakes (below 100km or 60mi) are usually associated with oceanic ridges.

FALSE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Explain how seismology has provided critical data for modeling Earth's interior.
Section: 02.03 Evidence for a New Theory: Seafloor Spreading
Topic: Evidence for a New Theory: Seafloor Spreading

21. The deep mantle below the asthenosphere is called the mesosphere.

TRUE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Sketch Earth's internal structure and label the thickness of each region.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

22. P waves travel more quickly than S waves.

TRUE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Explain how seismology has provided critical data for modeling Earth's interior.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

23. P waves travel only along the Surface of the Earth.

FALSE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Explain how seismology has provided critical data for modeling Earth's interior.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

24. S waves are able to travel through both solid and liquid.

FALSE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Explain how seismology has provided critical data for modeling Earth's interior.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

25. Continental crust is generally thicker and less dense than oceanic crust.

TRUE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Sketch Earth's internal structure and label the thickness of each region.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

26. The taller a mountain is, the deeper its root will extend into the asthenosphere.

TRUE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Sketch Earth's internal structure and label the thickness of each region.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

27. Hess's 1960s theory of mantle convection and seafloor spreading was essentially correct.

TRUE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Distinguish between continental drift and plate tectonics.
Section: 02.03 Evidence for a New Theory: Seafloor Spreading
Topic: Evidence for a New Theory: Seafloor Spreading

28. The oldest oceanic crust is generally in the center of the ocean basin near the mid-ocean ridge or rise system.

FALSE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Distinguish between continental drift and plate tectonics.
Section: 02.03 Evidence for a New Theory: Seafloor Spreading
Topic: Evidence for a New Theory: Seafloor Spreading

29. Sediment thickness on the oceanic crust tends to be greatest in the center of ocean basins

FALSE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Distinguish between continental drift and plate tectonics.
Section: 02.03 Evidence for a New Theory: Seafloor Spreading
Topic: Evidence for a New Theory: Seafloor Spreading

30. Based on the current directions of plate motion, China and the West Coast of the U.S. are getting closer.

TRUE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Diagram relative plate motions.

Section: 02.05 Motion of the Plates
Topic: Motion of the Plates

31. Volcanic activity is common at transform plate boundaries.

FALSE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Diagram the three types of plate boundaries.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

32. The thickness of oceanic crust increases with age.

TRUE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Sketch Earth's internal structure and label the thickness of each region.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

33. The deepest earthquakes occur in subduction zones at oceanic-oceanic plate convergent boundaries.

TRUE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Explain how seismology has provided critical data for modeling Earth's interior.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

34. California is an example of a passive continental margin.

FALSE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Diagram the three types of plate boundaries.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

35. Deposits of sediments are usually thicker along passive continental margins.

TRUE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Diagram the three types of plate boundaries.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

36. Spreading at mid ocean ridges tends to occur in increments rather than continuously.

TRUE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Diagram the three types of plate boundaries.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

37. The density of Earth materials _____ as the core is approached.

A. remains the same

B. decreases
C. increases
D. increases then decreases
E. decreases then increases

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Sketch Earth's internal structure and label the thickness of each region.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

38. The Moho is located between the

A. lithosphere and the asthenosphere.
B. crust and the mantle.
C. mantle and the outer core.
D. inner and outer cores.
E. continental margin and the abyssal plain.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Sketch Earth's internal structure and label the thickness of each region.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

39. Which of the following help us believe that Earth's mass is distributed spherically and uniformly around Earth's center?

A. Lack of roughness of Earth's surface
B. Earth's spherical shape
C. Lack of rotational wobble
D. Earth's spherical shape and lack of rotational wobble.
E. Lack of roughness of Earth's surface, Earth's spherical shape, and lack of rotational wobble are correct

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Sketch Earth's internal structure and label the thickness of each region.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

40. Which of Earth's layers contains the greatest volume of material?

A. Inner core
B. Outer core
C. Mantle
D. Lithosphere
E. Outer crust

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Sketch Earth's internal structure and label the thickness of each region.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

41. The deepest portion of the lithosphere is formed from

A. oceanic basalt.
B. terrestrial granite.
C. a combination of basalt and granite.
D. mantle material.
E. the Moho.

Accessibility: Keyboard Navigation
Blooms: 1. Remember

Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Differentiate among the lithosphere, asthenosphere, and mesosphere.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

42. The theory of drifting continents was proposed by

A. John Murray.
B. Matthew F. Maury.
C. Alfred Wegener.
D. Charles Darwin.
E. Robert Ballard.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Review the evidence in a written summary Alfred Wegener used to support his hypothesis of continental drift and the evidence supporting plate tectonics.
Section: 02.02 History of a Theory: Continental Drift
Topic: History of a Theory: Continental Drift

43. The mechanism causing lithospheric plates to move is thought to be

A. convection in the mantle.
B. "slab pull" caused by subducting lithosphere.
C. tidal forces.
D. Earth's rotation.
E. a combination of convection in the mantle and "slab pull" caused by subducting lithosphere.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Distinguish between continental drift and plate tectonics.
Section: 02.05 Motion of the Plates
Topic: Motion of the Plates

44. Higher seafloor heat flow values are found

A. along coastlines.
B. in the middle of ocean basins.
C. near ocean ridge systems.
D. associated with abyssal hills.
E. along the edges of trenches.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Distinguish between continental drift and plate tectonics.
Section: 02.03 Evidence for a New Theory: Seafloor Spreading
Topic: Evidence for a New Theory: Seafloor Spreading

45. Which of the following are found along subduction zones?

A. Oceanic trenches
B. Active earthquake zones
C. Island arc systems
D. All of these are correct.
E. None of these are correct.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Diagram the three types of plate boundaries.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

46. Magnetic stripes on the seafloor are created at

A. subduction zones.
B. spreading centers.
C. abyssal plains.
D. subduction zones and spreading centers.
E. subduction zones, spreading centers, and abyssal plains.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Illustrate the formation of magnetic stripes on the sea floor.
Section: 02.03 Evidence for a New Theory: Seafloor Spreading
Topic: Evidence for a New Theory: Seafloor Spreading

47. Plates move horizontally past each other along

A. transform faults.
B. convergent plate boundaries.
C. divergent plate boundaries.
D. the rift valley.
E. hot spots.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Diagram the three types of plate boundaries.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

48. The Pacific plate is carrying Baja California and the coastal cities of Southern California _____ the continent of North America.

A. away from (west)
B. toward (east)
C. southward along
D. northward along
E. None of these are correct; there is no motion in this region.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Diagram the three types of plate boundaries.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

49. Thinning of Earth's crust and the resulting faulting is called

A. convection.
B. subduction.
C. folding.
D. rifting.
E. trailing.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Diagram the three types of plate boundaries.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

50. The deep-ocean trenches are usually associated with

A. volcanism.
B. island arc systems.
C. earthquakes.
D. All of these are correct.
E. None of these are correct.

Accessibility: Keyboard Navigation
Blooms: 1. Remember

Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Diagram the three types of plate boundaries.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

51. Seafloor spreading is continuing at a rate of approximately

A. 1 to 10cm/year.
B. 1 to 10m/year.
C. 1 to 10km/year.
D. 1 to 100cm/year.
E. 1 to 100m/year.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Diagram the three types of plate boundaries.
Section: 02.05 Motion of the Plates
Topic: Motion of the Plates

52. A fixed volcanic hot spot on Earth tends to produce a _____ on a moving plate.

A. series of volcanic peaks
B. high landmass with a fixed location
C. transform fault system
D. submarine canyon and associated abyssal hills
E. trench

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Distinguish between continental drift and plate tectonics.
Section: 02.05 Motion of the Plates
Topic: Motion of the Plates

53. The present oceans have been created during the last

A. 2250 million years.
B. 225 million years.
C. 20 million years.
D. 2 million years.
E. 2 billion years.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Distinguish between continental drift and plate tectonics.
Section: 02.03 Evidence for a New Theory: Seafloor Spreading
Topic: Evidence for a New Theory: Seafloor Spreading

54. Which of the following occurred during the Paleozoic era?

A. Landmasses were strung along Earth's equator.
B. Landmasses drifted across the South Pole.
C. Landmasses came together to form Pangaea.
D. All of these are correct.
E. None of these are correct.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Review the evidence in a written summary Alfred Wegener used to support his hypothesis of continental drift and the evidence supporting plate tectonics.
Section: 02.02 History of a Theory: Continental Drift
Topic: History of a Theory: Continental Drift

55. A program of deep-sea drilling for cores from the ocean's bottom is carried out by the

A. Kon-Tiki.
B. Fram.
C. JOIDES Resolution.
D. Calypso.
E. Beagle.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Distinguish between continental drift and plate tectonics.
Section: 02.03 Evidence for a New Theory: Seafloor Spreading
Topic: Evidence for a New Theory: Seafloor Spreading

56. The oceans' oldest sediments are found

A. adjacent to a rift valley.
B. on top of the basalt layer, far from spreading centers.
C. adjacent to a transform fault.
D. at the surface of sediment layers, far from spreading centers.
E. in hot spots.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Distinguish between continental drift and plate tectonics.
Section: 02.03 Evidence for a New Theory: Seafloor Spreading
Topic: Evidence for a New Theory: Seafloor Spreading

57. During the next magnetic reversal, the magnetic force field surrounding Earth will shift by about

A. 45°.
B. 90°.
C. 180°.
D. 270°.
E. 360°.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Illustrate the formation of magnetic stripes on the sea floor.
Section: 02.03 Evidence for a New Theory: Seafloor Spreading
Topic: Evidence for a New Theory: Seafloor Spreading

58. The motion between the two sides of a transform fault is greatest

A. outside the adjacent ridge axes.
B. north of the adjacent ridge axes.
C. between the adjacent ridge axes.
D. south of the adjacent ridge axes.
E. east or west of the adjacent ridge axes.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Diagram the three types of plate boundaries.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

59. The trailing margin of a continental landmass _____ than its leading margin.

A. is wider
B. shows less tectonic activity
C. is more stable
D. All of these are correct.
E. is wider and is more stable

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic

Learning Outcome: Diagram the three types of plate boundaries.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

60. Which method is being used to investigate the structure of the mantle?

A. Isostasy
B. Measurement of seafloor heat flow
C. Seismic tomography
D. Subduction
E. Radiometric dating

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Explain how seismology has provided critical data for modeling Earth's interior.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

61. The crust and the mantle are divided into the following layers in order of increasing depth:

A. mesosphere, lithosphere, asthenosphere
B. asthenosphere, lithosphere, mesosphere
C. lithosphere, mesosphere, asthenosphere
D. lithosphere, asthenosphere, mesosphere
E. asthenosphere, mesosphere, lithosphere

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Differentiate among the lithosphere, asthenosphere, and mesosphere.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

62. The east coast of the United States is an example of a(n) _____ continental margin.

A. passive
B. active
C. trailing
D. leading
E. passive and trailing

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Diagram the three types of plate boundaries.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

63. Seafloor spreading can be detected by

A. changes in water temperature.
B. changes in water chemistry.
C. acoustic monitoring.
D. submersible observation of the seafloor.
E. All of these are correct.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Distinguish between continental drift and plate tectonics.
Section: 02.03 Evidence for a New Theory: Seafloor Spreading
Topic: Evidence for a New Theory: Seafloor Spreading

64. Which of the Earth's layers has the greatest density?

A. Core
B. Mantle

C. Crust
D. Lithosphere
E. Asthenosphere

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Sketch Earth's internal structure and label the thickness of each region.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

65. Which layer of the Earth contains the greatest mass?

A. Core
B. Mantle
C. Crust
D. Lithosphere
E. Asthenosphere

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Sketch Earth's internal structure and label the thickness of each region.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

66. Which layer is believed to behave most like a liquid?

A. Outer Core
B. Mantle
C. Crust
D. Lithosphere
E. Inner Core

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Sketch Earth's internal structure and label the thickness of each region.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

67. Which statement is true about continental crust?

A. It is composed of granitic-type rock and has a higher density than oceanic crust.
B. It is composed of basaltic-type rock and has a higher density than oceanic crust.
C. It is composed of granitic-type rock and has a lower density than oceanic crust.
D. It is composed of basaltic-type rock and has a lower density than oceanic crust.
E. It is composed of granitic-type rock and has the same density as oceanic crust.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Sketch Earth's internal structure and label the thickness of each region.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

68. When talking about plate tectonics, which of the Earth's layers comprises the plates?

A. Crust
B. Mantle
C. Core
D. Lithosphere
E. Asthenosphere

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Differentiate among the lithosphere, asthenosphere, and mesosphere.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

69. What is the approximate length of the mid ocean ridge system that extends around the globe through all of the major ocean basins?

A. 6,500,000km
B. 650,000km
C. 65,000km
D. 6,500km
E. 650km

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Diagram the three types of plate boundaries.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

70. Volcanic activity occurs at all of the following except

A. convergent boundaries between two oceanic plates.
B. continental rift valleys.
C. convergent boundaries between two continental plates.
D. mid ocean ridges.
E. convergent boundary between a continental and oceanic plate.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Distinguish between continental drift and plate tectonics.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

71. Earthquakes occur at all of the following except

A. convergent boundaries between two oceanic plates.
B. continental rift valleys.
C. convergent boundaries between two continental plates.
D. mid ocean ridges.
E. Earthquakes occur at all of the above settings.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Distinguish between continental drift and plate tectonics.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

72. The density of the inner core reaches a maximum of about ____ grams/cm^3.

A. 150
B. 70
C. 52
D. 31
E. 16

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Sketch Earth's internal structure and label the thickness of each region.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

73. List the following plates in order of largest to smallest:

A. North American, Pacific, Australian, Caribbean, Indian
B. Pacific, Indian, North American, Australian, Caribbean
C. Indian, Pacific, North American, Caribbean, Australian

D. Pacific, North American, Australian, Indian, Caribbean
E. Pacific, Australian, North American, Indian, Caribbean

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Distinguish between continental drift and plate tectonics.
Section: 02.04 Plate Tectonics
Topic: Plate Tectonics

74. Throughout time, continents break apart and collide and ocean basins open and close.This cyclical process is known as the

A. Wilson cycle.
B. Wegener cycle.
C. lithospheric cycle.
D. Benioff cycle.
E. Richter cycle.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Distinguish between continental drift and plate tectonics.
Section: 02.06 History of the Continents
Topic: History of the Continents

75. Before Pangaea, there was an earlier supercontinent we call

A. Panthalassa.
B. Gorda.
C. Rodinia.
D. Lefse.
E. Neogenia.

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Distinguish between continental drift and plate tectonics.
Section: 02.06 History of the Continents
Topic: History of the Continents

76. Seismic surface waves travel at about the same speed as ocean waves.

FALSE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Explain how seismology has provided critical data for modeling Earth's interior.
Section: 02.01 Earth's Interior
Topic: Earth's Interior

77. Over 170 reversals of Earth's magnetic field have been recorded in the past 80 million years.

TRUE

Accessibility: Keyboard Navigation
Blooms: 1. Remember
Chapter: 02 Earth Structure and Plate Tectonics
Gradable: automatic
Learning Outcome: Illustrate the formation of magnetic stripes on the sea floor.
Section: 02.03 Evidence for a New Theory: Seafloor Spreading
Topic: Evidence for a New Theory: Seafloor Spreading

Chapter 02 Test Bank - Static Summary

Category	*# of Questions*
Accessibility: Keyboard Navigation	74

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Chapter: 02 Earth Structure and Plate Tectonics	77
Gradable: automatic	77
Learning Outcome: Describe how hotspots create island chains.	1
Learning Outcome: Diagram relative plate motions.	1
Learning Outcome: Diagram the three types of plate boundaries.	19
Learning Outcome: Differentiate among the lithosphere, asthenosphere, and mesosphere.	3
Learning Outcome: Discuss evidence in support of seafloor spreading.	1
Learning Outcome: Distinguish between continental drift and plate tectonics.	15
Learning Outcome: Explain how seismology has provided critical data for modeling Earth's interior.	10
Learning Outcome: Explain the relationship between volcanism and plate tectonics.	1
Learning Outcome: Identify the major plates.	1
Learning Outcome: Illustrate the formation of magnetic stripes on the sea floor.	3
Learning Outcome: Review the evidence in a written summary Alfred Wegener used to support his hypothesis of continental drift and the evidence supporting plate tectonics.	4
Learning Outcome: Sketch Earth's internal structure and label the thickness of each region.	17
Learning Outcome: Understand the evidence for seafloor spreading.	1
Section: 02.01 Earth's Interior	26
Section: 02.02 History of a Theory: Continental Drift	4
Section: 02.03 Evidence for a New Theory: Seafloor Spreading	15
Section: 02.04 Plate Tectonics	25
Section: 02.05 Motion of the Plates	5
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Topic: Earth's Interior	26
Topic: Evidence for a New Theory: Seafloor Spreading	15
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