

Introduction to Geography, 6e (Dahlman/Renwick)

Chapter 3 Landforms

1) The study of landforms and the processes that create them is called

- A) geomorphology.
- B) demography.
- C) cartography.
- D) seismography.

Answer: A

Diff: 1

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 1. Define tectonic plates

2) Earth's rocks, soils, and surface landforms together comprise the

- A) lithosphere.
- B) biosphere.
- C) troposphere.
- D) hydrosphere.

Answer: A

Diff: 1

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 1. Define tectonic plates

3) Endogenic processes

- A) are external.
- B) result from wind.
- C) include running water.
- D) create volcanoes.

Answer: D

Diff: 1

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 1. Define tectonic plates

- 4) Exogenic processes
A) are internal.
B) result from earthquakes.
C) include running water.
D) create volcanoes.

Answer: C

Diff: 1

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 1. Define tectonic plates

- 5) The rock in the interior of Earth's surface that carries slow-moving convective currents is known as the

- A) core.
B) mantle.
C) crust.
D) shield.

Answer: B

Diff: 1

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 1. Define tectonic plates

- 6) Volcanoes

- A) are randomly distributed.
B) issue sial.
C) might erupt runny lava that cools to form basalt.
D) are absent from the Eastern Hemisphere.

Answer: C

Diff: 1

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 1. Define tectonic plates

7) Which of the following is NOT true of shield volcanoes?

- A) They include the Big Island of Hawaii.
- B) They are known for their violent, exploding eruptions of thick and gassy magma.
- C) They are the largest volcanoes on Earth.
- D) They have runny basaltic lava.

Answer: B

Diff: 1

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Comprehension

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 3. List examples of the different kinds of plate boundaries

8) The Hawaiian Islands

- A) are a series of shield volcanoes.
- B) formed from a series of violent volcanic eruptions.
- C) lie atop the meeting place of two major tectonic plates.
- D) erupt lots of ash and pyroclasts.

Answer: A

Diff: 1

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 3. List examples of the different kinds of plate boundaries

9) The boundary where Earth's plates are spreading apart is what kind of plate boundary?

- A) divergent
- B) convergent
- C) transform
- D) vertical

Answer: A

Diff: 1

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 3. List examples of the different kinds of plate boundaries

10) What kind of rocks are formed when molten crustal material cools and solidifies?

- A) metamorphic
- B) sedimentary
- C) igneous
- D) sima

Answer: C

Diff: 1

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 3. List examples of the different kinds of plate boundaries

11) What kind of rocks have been exposed to great heat and pressure, altering them into more compact, crystalline rocks?

- A) metamorphic
- B) sedimentary
- C) igneous
- D) sima

Answer: A

Diff: 1

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 3. List examples of the different kinds of plate boundaries

12) Metamorphic rocks

- A) are formed when molten material cools and solidifies.
- B) are formed when rocks are subjected to great heat and pressure.
- C) contain abundant fossils.
- D) include shale.

Answer: B

Diff: 1

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 3. List examples of the different kinds of plate boundaries

13) What kind of rocks result when rocks eroded from higher elevations (mountains, hills, plains) accumulate at lower elevations (such as swamps and ocean bottoms)?

- A) metamorphic
- B) sedimentary
- C) igneous
- D) sima

Answer: B

Diff: 1

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 3. List examples of the different kinds of plate boundaries

14) Which of the following is an example of how human actions have changed the lithosphere?

- A) volcanic eruptions
- B) agriculture
- C) earthquakes
- D) ocean waves

Answer: B

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Analysis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 1. Define tectonic plates

15) Which of the following does NOT describe endogenic processes?

- A) moves portions of Earth's surface horizontally and vertically
- B) earthquakes, volcanic eruptions, and formation of mountain ranges at plate boundaries
- C) shapes Earth's surface externally
- D) includes the force of plate tectonics

Answer: C

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 1. Define tectonic plates

- 16) The world's longest mountain range is
A) the Rockies/Andes Mountain system.
B) the Himalayas.
C) the north-south system of mountains in Eastern Africa.
D) beneath the ocean.

Answer: D

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Analysis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 1. Define tectonic plates

- 17) The place where Earth's crust actually moves is the _____ of an earthquake.

- A) focus
B) fault crust
C) epicenter
D) wave front

Answer: A

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 1. Define tectonic plates

- 18) At which level on the Richter scale are the most devastating earthquakes?

- A) 1-2
B) 3-4
C) 5-6
D) 7-8

Answer: D

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Analysis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Global Sci LO: 4. Demonstrate the quantitative skills needed to succeed in Introductory Geography.

Learning Outcome: 1. Define tectonic plates

19) Which of the following is NOT true of magma?

- A) Magma is generated by the movement within Earth and between plates.
- B) Magma migrates toward the surface because it is less dense than the surrounding rock.
- C) Magma is called lava when it reaches the surface and erupts.
- D) Magma forms sedimentary rocks upon cooling.

Answer: D

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 3. List examples of the different kinds of plate boundaries

20) In what kind of plate boundary is material from the crust very slowly forced downward, back into the mantle?

- A) divergent
- B) convergent
- C) transform
- D) vertical

Answer: B

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 2. List the different kinds of plate boundaries

21) Near a convergent plate boundary, rocks fracture because they are compressed; such fractures are what kind of faults?

- A) reverse
- B) normal
- C) symmetrical
- D) overturned

Answer: A

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 2. List the different kinds of plate boundaries

22) The greater thickness of what kind of rocks causes the continents to have higher surface elevations than the oceanic crust?

- A) sial
- B) metamorphic
- C) igneous
- D) sima

Answer: A

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Analysis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 3. List examples of the different kinds of plate boundaries

23) Shields, which usually contain rich concentrations of minerals (such as metallic ores) are located _____ of large continents such as Africa, Asia, and North America.

- A) along the coast
- B) in the core
- C) along fault scarps
- D) along plate boundaries

Answer: B

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 4. Describe the processes that cause vertical movements of the Earth's crust

24) Earthquakes are most likely to occur

- A) in the center of tectonic plates.
- B) at the equator.
- C) where two tectonic plates join.
- D) at the poles.

Answer: C

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Global Sci LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

Learning Outcome: 3. List examples of the different kinds of plate boundaries

- 25) Earthquakes are most likely to occur near
- A) continental shields.
 - B) areas of volcanic activity in the interior of continents.
 - C) areas where two tectonic plates meet.
 - D) heavily populated areas.

Answer: C

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 3. List examples of the different kinds of plate boundaries

- 26) The San Andreas Fault, where two plates slide past one another, is a famous example of what kind of plate boundary?

- A) divergent
- B) convergent
- C) transform
- D) vertical

Answer: C

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 2. List the different kinds of plate boundaries

- 27) Seafloor spreading

- A) ended with the breakup of Pangaea.
- B) is the result of subduction.
- C) can occur at divergent plate boundaries.
- D) was documented by Alfred Wegener.

Answer: C

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 3. List examples of the different kinds of plate boundaries

28) The Appalachians, the European Alps, and the Himalayas are examples of mountain ranges formed by

- A) normal faults.
- B) divergent plate boundaries.
- C) faulting and folding.
- D) volcanic eruptions.

Answer: C

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 2. List the different kinds of plate boundaries

29) Which of the following factors does NOT influence the amount of ground shaking caused by earthquakes?

- A) the earthquake's intensity
- B) proximity to epicenter
- C) unstable ground
- D) time of day

Answer: D

Diff: 3

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Synthesis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Global Sci LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

Learning Outcome: 1. Define tectonic plates

30) Which of the following roles do streams play in shaping landforms?

- A) erosion, transportation and deposition
- B) weathering, transportation and deposition
- C) erosion, weathering and deposition
- D) erosion, transportation and weathering

Answer: A

Diff: 1

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Comprehension

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 8. Describe the features of a meandering stream channel

- 31) The smallest channels eroded by the flow of water, only a few centimeters deep, are
- A) rills.
 - B) alluvial fans.
 - C) moraine.
 - D) sials.

Answer: A

Diff: 1

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 8. Describe the features of a meandering stream channel

- 32) What kind of fans occur when sediment that the stream can no longer carry is deposited in a fan-shaped pattern?

- A) loess
- B) alluvial
- C) rills
- D) fluvium

Answer: B

Diff: 1

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 8. Describe the features of a meandering stream channel

- 33) Soil creep is NOT

- A) the most common form of mass movement.
- B) the very slow, gradual movement of material down the slope of a hill.
- C) more dangerous and dramatic when it occurs on steep slopes and in wet conditions.
- D) common in areas of permafrost.

Answer: D

Diff: 2

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Analysis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 6. List the different types of mass movements

34) On most of Earth's land surface, what is the most important agent in moving weathered rock fragments downhill?

- A) wind
- B) water
- C) gravity
- D) ice

Answer: B

Diff: 2

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 6. List the different types of mass movements

35) During dry periods, most of the water flowing into streams is supplied by

- A) overland flow.
- B) groundwater.
- C) rainfall.
- D) storms.

Answer: B

Diff: 2

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 8. Describe the features of a meandering stream channel

36) The combined length of all of the stream channels in a basin, divided by the area of the drainage basin, is the

- A) drainage density.
- B) slope.
- C) isostatic adjustment.
- D) discharge.

Answer: A

Diff: 2

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Global Sci LO: 4. Demonstrate the quantitative skills needed to succeed in Introductory Geography.

Learning Outcome: 8. Describe the features of a meandering stream channel

37) The volume of water that a stream carries per unit time is

- A) runoff.
- B) drainage density.
- C) infiltration.
- D) discharge.

Answer: D

Diff: 2

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Analysis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Global Sci LO: 4. Demonstrate the quantitative skills needed to succeed in Introductory Geography.

Learning Outcome: 8. Describe the features of a meandering stream channel

38) The effect of deposition of sediment on streams is to

- A) change the shape of the channel.
- B) lower the elevation of the stream.
- C) increase slope.
- D) increase depth of pools.

Answer: A

Diff: 2

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Global Sci LO: 4. Demonstrate the quantitative skills needed to succeed in Introductory Geography.

Learning Outcome: 8. Describe the features of a meandering stream channel

39) Which of the following is NOT true of chemical weathering?

- A) Rocks are broken down in a way that changes the minerals that compose the rock.
- B) It occurs faster in cooler places.
- C) It can be a result of the acids released by decaying vegetation.
- D) Oxidation is an example.

Answer: B

Diff: 3

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Synthesis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 5. Describe the process of weathering

40) A meandering stream does NOT

- A) erode and widen its floodplain.
- B) erode material from one side of the channel, where the current is swifter.
- C) deposit material where current is slower and has less energy.
- D) deposit material to constrict its floodplain.

Answer: D

Diff: 3

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Synthesis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 8. Describe the features of a meandering stream channel

41) Alpine glaciers

- A) are thick layers of ice over 3 km in thickness.
- B) form near the peaks of individual mountains.
- C) are found at the poles.
- D) are increasing in size each year.

Answer: B

Diff: 1

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 10. Describe the major features of glaciated landscapes

42) Glaciers

- A) can move up to several hundred meters per year.
- B) contain more water today than they did 18,000 years ago.
- C) are more prominent at lower latitudes than higher latitudes.
- D) have little lasting impact on geomorphology.

Answer: A

Diff: 1

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Comprehension

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 10. Describe the major features of glaciated landscapes

43) Accumulations of shifting sand are

- A) cirques.
- B) horns.
- C) spurs.
- D) dunes.

Answer: D

Diff: 1

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 11. Describe the ways in which wave action shapes coastlines

44) An extremely long ocean wave created by an underwater earthquake that may travel hundreds of kilometers per hour is a

- A) rill.
- B) dune.
- C) moraine.
- D) tsunami.

Answer: D

Diff: 1

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 11. Describe the ways in which wave action shapes coastlines

45) _____ are like a river carrying sediment from areas where it is eroded by waves and depositing it where breaking waves lose energy to carry it, usually in deeper water.

- A) Surfs
- B) Longshore currents
- C) Seismic waves
- D) Rills

Answer: B

Diff: 1

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Comprehension

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 11. Describe the ways in which wave action shapes coastlines

46) A ridge of material deposited at the end of a glacier is

- A) a lateral moraine.
- B) a terminal moraine.
- C) an outwash plain.
- D) an accumulation zone.

Answer: B

Diff: 2

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 10. Describe the major features of glaciated landscapes

47) Which of the following are NOT results of post glaciation?

- A) V-shaped valleys
- B) new lakes and streams
- C) sharp-edged mountain ridges
- D) U-shaped valleys

Answer: A

Diff: 2

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 10. Describe the major features of glaciated landscapes

48) Thick layers of wind-blown silt are

- A) loess.
- B) alluvium.
- C) rills.
- D) fluvium.

Answer: A

Diff: 2

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 11. Describe the ways in which wave action shapes coastlines

49) Desert areas

- A) always contain sand dunes.
- B) are typically not eroded by water.
- C) typically contain very little desert pavement.
- D) are eroded by both wind and water.

Answer: D

Diff: 3

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Synthesis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Global Sci LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

Learning Outcome: 11. Describe the ways in which wave action shapes coastlines

50) Waves

- A) are usually formed by the effect of tides.
- B) travel with equal energy in all directions from the point of origin.
- C) have speeds that are proportional to wavelength.
- D) change more in deep water than in shallow water.

Answer: C

Diff: 3

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Analysis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Global Sci LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

Learning Outcome: 11. Describe the ways in which wave action shapes coastlines

51) Plate tectonics theory has been widely accepted since the late nineteenth century.

Answer: FALSE

Diff: 1

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 1. Define tectonic plates

52) Basalt is an igneous rock.

Answer: TRUE

Diff: 1

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 3. List examples of the different kinds of plate boundaries

53) Plate movements across Earth's surface are believed to be caused by convection in the mantle.

Answer: TRUE

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 1. Define tectonic plates

54) Earthquakes tend to do the most damage in economically advanced countries.

Answer: FALSE

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Application

Nat Geo Standard: 16. Environment and Society: The changes that occur in the meaning, use, distribution, and importance of resources

Learning Outcome: 3. List examples of the different kinds of plate boundaries

55) Shield volcanoes are more likely to cause death and destruction than composite cone volcanoes.

Answer: FALSE

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Analysis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 3. List examples of the different kinds of plate boundaries

56) The rocks of continental shields often contain rich concentrations of metal ores.

Answer: TRUE

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 3. List examples of the different kinds of plate boundaries

57) Isostatic adjustments are horizontal movements of the crust caused by faulting.

Answer: FALSE

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 3. List examples of the different kinds of plate boundaries

58) Oxidation of iron in rocks is an example of mechanical weathering.

Answer: FALSE

Diff: 2

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 5. Describe the process of weathering

59) Leaching is a major cause of the ocean's salinity.

Answer: TRUE

Diff: 2

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 8. Describe the features of a meandering stream channel

60) The very slow, gradual movement of material downslope is slumping.

Answer: FALSE

Diff: 2

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 6. List the different types of mass movements

61) Landslides happen mainly during or following heavy rainfall.

Answer: TRUE

Diff: 2

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 6. List the different types of mass movements

62) Most rivers have relatively gentle gradients in the headwaters and steep gradients in their downstream portions.

Answer: FALSE

Diff: 2

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Analysis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 8. Describe the features of a meandering stream channel

63) Accelerated erosion on uplands has resulted in increased deposition of sediment in many stream valleys.

Answer: TRUE

Diff: 2

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Analysis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 8. Describe the features of a meandering stream channel

64) Less than 5 percent of eroded sediment will ever reach the sea.

Answer: FALSE

Diff: 2

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Global Sci LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

Learning Outcome: 8. Describe the features of a meandering stream channel

65) Drainage density is the combined length of all the stream channels in a basin divided by the area of the basin.

Answer: TRUE

Diff: 3

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Synthesis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Global Sci LO: 4. Demonstrate the quantitative skills needed to succeed in Introductory Geography.

Learning Outcome: 8. Describe the features of a meandering stream channel

66) For most of its existence, the Mississippi River has followed the same stream channel.

Answer: FALSE

Diff: 3

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Evaluation

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Global Sci LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

Learning Outcome: 8. Describe the features of a meandering stream channel

67) Terminal moraines mark the beginning point of a glacier where ice accumulates.

Answer: FALSE

Diff: 1

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 10. Describe the major features of glaciated landscapes

68) Loess is a deposit of wind-blown silt.

Answer: TRUE

Diff: 1

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 11. Describe the ways in which wave action shapes coastlines

69) The sinking of the Mississippi River Delta around New Orleans has led to decreased wetlands in Louisiana.

Answer: TRUE

Diff: 2

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 11. Describe the ways in which wave action shapes coastlines

70) Mountain glaciation leaves a series of V-shaped valleys.

Answer: FALSE

Diff: 2

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 10. Describe the major features of glaciated landscapes

71) The continental glaciers that existed during the Ice Age accumulated at the North Pole and spread southward in all directions.

Answer: FALSE

Diff: 2

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Analysis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Global Sci LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

Learning Outcome: 10. Describe the major features of glaciated landscapes

72) Although continental glaciers existed in many areas 20,000 years ago, there are none on Earth today.

Answer: FALSE

Diff: 2

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Analysis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Global Sci LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

Learning Outcome: 10. Describe the major features of glaciated landscapes

73) An outwash plain is a large area in which accelerated erosion has removed most of the soil.

Answer: FALSE

Diff: 2

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 10. Describe the major features of glaciated landscapes

74) Long Island was formed as a result of the formation of moraines during glaciation.

Answer: TRUE

Diff: 2

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 10. Describe the major features of glaciated landscapes

75) Coastal landforms change much more rapidly than most inland features.

Answer: TRUE

Diff: 2

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Synthesis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Global Sci LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

Learning Outcome: 11. Describe the ways in which wave action shapes coastlines

76) On average, shoreline is being destroyed faster than it is created.

Answer: TRUE

Diff: 3

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Synthesis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Global Sci LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

Learning Outcome: 11. Describe the ways in which wave action shapes coastlines

77) Sea level has risen over the last few hundred years primarily because the total capacity of the world's oceans to hold water has decreased.

Answer: FALSE

Diff: 3

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Evaluation

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Global Sci LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

Learning Outcome: 11. Describe the ways in which wave action shapes coastlines

78) Building levees and seawalls is a sure way to prevent property damage from flooding.

Answer: FALSE

Diff: 3

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Evaluation

Nat Geo Standard: 15. Environment and Society: How physical systems affect human systems

Global Sci LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

Learning Outcome: 11. Describe the ways in which wave action shapes coastlines

79) Geomorphic processes such as faulting that operate within the solid Earth are known as _____; processes like stream erosion that shape Earth from above are known as _____.

Answer: endogenic; exogenic

Diff: 1

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 1. Define tectonic plates

80) What are the three types of relative motion at boundaries of tectonic plates?

Answer: Convergent, divergent, transform.

Diff: 1

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 3. List examples of the different kinds of plate boundaries

81) How do eruptions of shield volcanoes differ from those of composite cone volcanoes?

Answer: Shield volcanoes erupt with relatively fluid lava and little ash; composite cones commonly eject ash and lava in explosive eruptions.

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Analysis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 3. List examples of the different kinds of plate boundaries

82) Rocks of the continental crust are composed mostly of sial, while rocks of the ocean crust are predominately sima. What is the significance of the distinction between these rock types?

Answer: Sial is less dense than sima, and the continents lie at a higher elevation as a result.

Diff: 2

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 4. Describe the processes that cause vertical movements of the Earth's crust

83) The process of breaking down rocks at Earth's surface into smaller pieces is called

_____.

Answer: weathering

Diff: 1

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 5. Describe the process of weathering

84) What is the difference between mass movement and erosion?

Answer: Mass movements primarily involve the action of gravity on slope materials; erosion involves water or wind moving across the soil surface.

Diff: 2

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Analysis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 6. List the different types of mass movements

85) How do streams erode and deposit material?

Answer: After chemical and mechanical weathering break down rock, water picks it up and carries it away (erosion) in the stream current. When the stream current decreases speed, it can no longer carry the heavier material, so it drops its load (deposition).

Diff: 2

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Analysis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 8. Describe the features of a meandering stream channel

86) What is meant by the term "grade" in the context of streams?

Answer: Grade is a condition in which a stream transports exactly as much sediment as it has collected.

Diff: 2

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 8. Describe the features of a meandering stream channel

87) In what way is drainage density affected by (a) soil characteristics, and (b) rainfall characteristics of a region?

Answer: Drainage density is increased by greater amounts of runoff, which may result from impermeable soils and/or higher rainfall.

Diff: 3

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Synthesis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Global Sci LO: 4. Demonstrate the quantitative skills needed to succeed in Introductory Geography.

Learning Outcome: 8. Describe the features of a meandering stream channel

88) Rivers of ice that flow from places where snow accumulates from year to year to places where the ice melts are _____.

Answer: glaciers

Diff: 1

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Knowledge

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 10. Describe the major features of glaciated landscapes

89) What are some of the features that are visible after an alpine glacier melts?

Answer: They include U-shaped valleys, new lakes and streams, and sharp peaks and ridges.

Diff: 2

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Learning Outcome: 12. List the major environmental hazards associated with geologic activity

90) In what ways can landforms be considered as the product of opposing endogenic and exogenic forces?

Answer: Exogenic forces create the base of shape of landforms where endogenic forces then sculpt and modify the shape of the landform.

Diff: 3

Topic/Section: Plate Tectonics

Bloom's Taxonomy: Synthesis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Global Sci LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

Learning Outcome: 1. Define tectonic plates

91) Summarize the major impacts of Pleistocene glaciation on the landscape of the United States.

Answer: The Pleistocene glaciers had a profound impact on the United States since the glaciation was relatively recent and the processes that alter these deposits are fairly slow. In areas where there was heavy erosion, soils are thin and bedrock structures are readily visible. In areas of deposition, moraines are still visible along with notable sand and gravel deposits.

Diff: 2

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Analysis

Nat Geo Standard: 15. Environment and Society: How physical systems affect human systems

Global Sci LO: 5. Demonstrate an understanding of the impact of science on society.

Learning Outcome: 10. Describe the major features of glaciated landscapes

92) Describe erosion and deposition.

Answer: Erosion is the process of removing and transporting material from an area. Deposition is the process of depositing the material in a new location.

Diff: 3

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Evaluation

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Global Sci LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

Learning Outcome: 8. Describe the features of a meandering stream channel

93) Describe the transport of running water from slopes to the sea, and the landforms this transport creates.

Answer: As rain falls to the surface, that water that does not infiltrate travels over the surface creating rills. As these rills continue downhill they create larger and permanent carriers known as streams which eventually run to larger bodies of water including oceans.

Diff: 3

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Synthesis

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Global Sci LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

Learning Outcome: 8. Describe the features of a meandering stream channel

94) Outline the ways in which human use of Earth has affected geomorphic processes.

Answer: Human activities have increased the rate of surface modification through such activities as deforestation and agriculture. These activities have increased the rate of erosion and deposition, thereby modifying landform development.

Diff: 3

Topic/Section: Slopes and Streams

Bloom's Taxonomy: Synthesis

Nat Geo Standard: 15. Environment and Society: How physical systems affect human systems

Global Sci LO: 5. Demonstrate an understanding of the impact of science on society.

Learning Outcome: 12. List the major environmental hazards associated with geologic activity

95) Explain longshore currents and what they do.

Answer: As water moves perpendicular to the shoreline, the breaking waves provide the energy to push the water parallel to the shore, creating the longshore current. The longshore current acts like a river and transports material along the shoreline through longshore transport from areas where it is eroded by waves to areas of less energy where it will be deposited.

Diff: 2

Topic/Section: Ice, Wind, and Waves

Bloom's Taxonomy: Application

Nat Geo Standard: 7. Physical Systems: The physical processes that shape the patterns of Earth's surface

Global Sci LO: 2. Demonstrate the ability to think critically and employ critical thinking skills.

Learning Outcome: 11. Describe the ways in which wave action shapes coastlines