

Skills Worksheet

Directed Reading

Section: How Mountains Form

- _____ 1. How high is Mount Everest?
- a. about 1980 km above sea level
 - b. more than 8 km below sea level
 - c. more than 8 km above sea level
 - d. more than 80 km above sea level
- _____ 2. What causes Mount Everest to grow taller every year?
- a. forces inside Earth
 - b. volcanoes
 - c. Earth's magnetic field
 - d. gravity

MOUNTAIN RANGES AND SYSTEMS

3. Define *mountain range*, and provide two examples of mountain ranges.

4. What is the term for a group of adjacent mountain ranges?

5. Which five mountain ranges make up the Appalachian mountain system?

6. What are Earth's two major mountain belts?

7. Which mountain belt forms a ring around the Pacific Ocean?

Directed Reading *continued*

8. Where does the Eurasian-Melanesian mountain belt run?

PLATE TECTONICS AND MOUNTAINS

9. The major mountain belts are located along

- a. divergent plate boundaries.
- b. convergent plate boundaries.
- c. international boundaries.
- d. deep-ocean ridges.

10. What does the location of the two major mountain belts tell scientists?

- a. Oceans form as a result of collision and divergence between tectonic plates.
- b. Mountains do not form as a result of collisions between tectonic plates.
- c. Most mountains form as a result of the divergence of tectonic plates.
- d. Most mountains form as a result of collisions between tectonic plates.

11. The Appalachians are located along

- a. active and previously active convergent plate boundaries.
- b. an active divergent plate boundary.
- c. a previously active convergent plate boundary.
- d. a previously active divergent plate boundary.

12. When oceanic lithosphere and continental lithosphere collide at convergent plate boundaries, what may be formed?

- a. mountains
- b. huge depressions
- c. oceanic trenches
- d. volcanoes

13. What is most likely to happen when moving plates collide at a convergent plate boundary?

- a. Continental lithosphere subducts beneath oceanic lithosphere.
- b. Oceanic atmosphere subducts beneath continental atmosphere.
- c. Oceanic lithosphere subducts beneath continental lithosphere.
- d. Oceanic lithosphere subducts beneath continental stratosphere.

Directed Reading *continued*

- _____ 14. What happens when plate collision produces large-scale deformation?
- a. Oceans are created.
 - b. High mountains are uplifted.
 - c. Deep ocean trenches are created.
 - d. Deep valleys are created.

- _____ 15. What is produced by the partial melting of the mantle and crust?
- a. mountains that may subduct to form volcanic mountains on Earth's surface
 - b. magma that may erupt to form volcanic mountains on Earth's surface
 - c. ocean currents that may warm the continental lithosphere so much that volcanoes result
 - d. atmospheric changes that can eventually cause mountains to form

- _____ 16. Which is an example of a mountain range that contains volcanic mountains formed by a plate collision that eventually produced magma and eruptions?
- a. the Cascade Range
 - b. the Appalachians
 - c. Mount Sinai
 - d. Mount Everest

17. What are terranes?

18. What is an area where volcanic mountains commonly form?

19. What happens during the collision of two plates whose edges consist of oceanic lithosphere?

20. When the denser oceanic plate subducts, what happens?

Directed Reading *continued*

21. What islands are an example of the peaks of volcanic mountains that rose above sea level?

22. When two continents collide, what can happen?

23. Where did present-day India come from?

24. What happened to the oceanic lithosphere of the Indian plate when it collided with the Eurasian plate?

25. Why did the subduction of the oceanic lithosphere of the Indian plate stop when the continental lithosphere of India collided with the continental lithosphere of Eurasia? What happened to the Himalayas?

26. Why are the Himalayas still growing taller?

Directed Reading *continued***TYPES OF MOUNTAINS**

- _____ 27. The rock formations of mountains
- are relatively uncomplicated structures.
 - are just elevated parts of Earth's crust.
 - provide evidence of the stresses that created the mountains.
 - provide no evidence of the stresses that created the mountains.
- _____ 28. Scientists classify mountains according to
- the way the crust was deformed and shaped by mountain-building stresses.
 - how the crust was preserved by subduction and collision.
 - the amount of loose rock that results from continental collisions.
 - the location either in the oceanic lithosphere or on a continental plate.
- _____ 29. What do the highest mountain ranges in the world consist of?
- ancient rock formations
 - folded mountains that form when continents collide
 - tectonic plates subducting under continental lithosphere
 - old mountains that formed when continents diverged
- _____ 30. How do folded mountains form?
- Tectonic plate movements squeeze rock layers together into accordian-like folds.
 - Tectonic plate movements melt rock layers together into magma.
 - The continental lithosphere squeezes rock layers together and deposits them into the oceanic lithosphere.
 - Tectonic plate movements squeeze rock layers together into tight places.
- _____ 31. The same stresses that form folded mountains also
- form folded valleys.
 - uplift rivers.
 - uplift plateaus.
 - fold rock formations.
- _____ 32. What are plateaus?
- small, arched areas of rock high above sea level
 - large, flat areas of rock high above sea level
 - large, flat areas of rock below sea level
 - small, flat areas of rock below sea level

Directed Reading *continued*

33. Where are most plateaus located?

34. Where is the Colorado plateau located?

35. What are fault-block mountains?

36. What is an example of a mountain range consisting of many fault-block mountains, and where is it located?

37. When do grabens form?

38. What is the relationship between grabens and fault-block mountain ranges?

39. What is an example in the United States of grabens separated by fault-block mountain ranges?

40. Describe a dome mountain.

Directed Reading *continued*

41. What are two ways dome mountains can form?

42. List two examples of dome mountains in the United States.

43. How do volcanic mountains form?

44. Where do volcanic mountains usually form?

45. Identify an example of volcanic mountains in the United States.

46. Where are some of the world's largest volcanic mountains?

47. What makes mid-ocean ridges volcanically active areas?

Directed Reading *continued*

48. How are volcanic islands formed? Give an example of volcanic mountains.

49. In addition to mid-ocean ridges, where do large volcanic mountains form?

50. What are hot spots, and what happens at hot spots?

51. What is an example of a volcanic mountain that resulted from hot spots?
