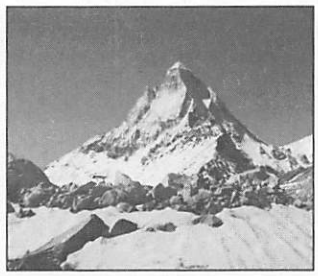
1 Which topographic map is the most accurate representation of the Shivling mountain peak? **(8.3B)**



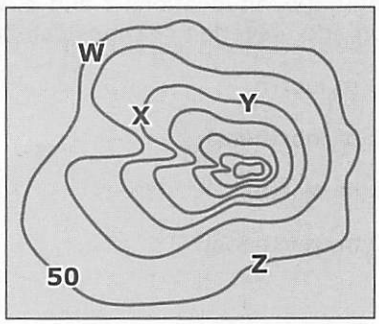
Ⓐ 

Ⓒ 

Ⓑ 

Ⓓ 

Use the topographic map below to answer questions 2 and 3.



2 Which location on the topographic map will be most affected by weathering?

Ⓕ Location W

Ⓖ Location X

Ⓗ Location Y

Ⓙ Location Z

3 If each contour line represents 50 meters, what is a reasonable height of the mountain peak in the topographic map?

Ⓐ 350 m

Ⓑ 300 m

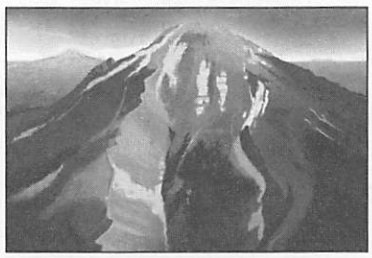
Ⓒ 325 m

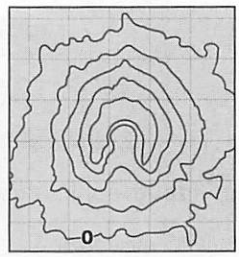
Ⓓ None of the above

Use the information below to answer questions 4–6.

Prior to the Mt. St. Helens eruption on May 18, 1980, satellite and topographic map views of the volcano were captured.

Mt. St. Helens – April 1980





4 Each picture shows a different profile of the volcano. By comparing the images, it can be interpreted that — **(8.2E)**

Ⓕ the slopes are at the same elevation

Ⓖ there is no difference in slope

Ⓗ all slopes are constant

Ⓙ some slopes are steeper than others

5 U-shaped contour lines are visible in the topographic map of Mt. St. Helens. What do the U-shaped contour lines indicate?

Ⓐ Intersection of land surfaces

Ⓑ Location of mountain ridges

Ⓒ Regular contour intervals

Ⓓ Location of a river

6 Based on the topographic map of Mt. St. Helens, what is the contour interval if the volcano height is 2,950 m? **(8.2E)**

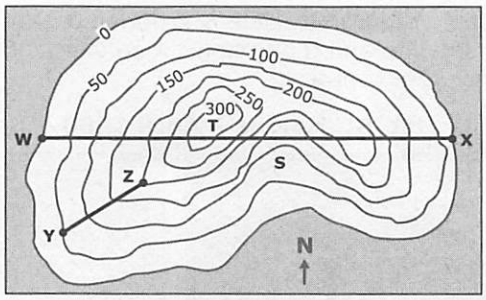
Ⓕ 400 m

Ⓖ 500 m

Ⓗ 600 m

Ⓙ 750 m

Use the topographic map to answer questions 1-6.



1 Topographic maps are used to measure —

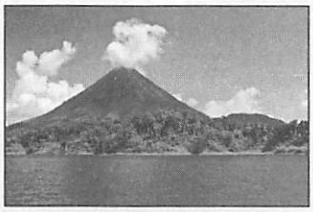
Ⓐ elevation

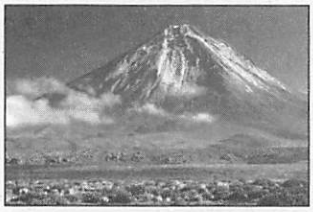
Ⓑ movement

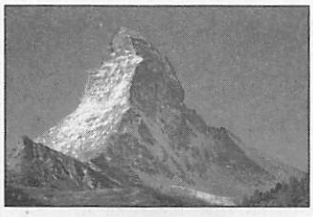
Ⓒ composition

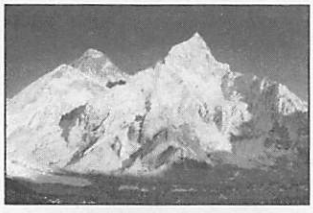
Ⓓ texture

2 Which landform is depicted in the topographic map?

Ⓕ 

Ⓖ 

Ⓗ 

Ⓙ 

3 Location T has an elevation of —

Ⓐ 350 m

Ⓑ 250 m

Ⓒ 325 m

Ⓓ 400 m

4 The elevation difference between points W and X is —

Ⓕ 250 m

Ⓖ 0 m

Ⓗ 150 m

Ⓙ 200 m

5 Traveling between locations Y and Z, what direction and elevation changes can be expected?

Ⓐ 200 m, north

Ⓑ 200 m, northeast

Ⓒ 150 m, north

Ⓓ 150 m, northeast

6 Which location will experience the greatest amount of weathering?

Ⓕ Location W

Ⓖ Location Y

Ⓗ Location S

Ⓙ Location T

Scientific Investigation and Reasoning Skills: Questions 7–14

7 A student uses clay to build a model of a mountain. The student uses dental floss to make horizontal cuts through the mountain. What do the horizontal cuts through the mountain represent in this model? **(8.3B)**

Ⓐ Peaks on the mountain

Ⓑ Different elevations on the mountain

Ⓒ Rivers on the mountain

Ⓓ Valleys on the mountain

8 Sand dunes are represented by faint brown dots on topographic maps.

Which of the following best explains why sand dunes are represented by dots rather than with contour lines? **(8.3A)**

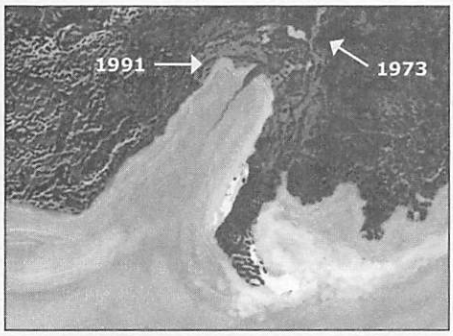
Ⓕ Sand dunes are found only in deserts and coastlines.

Ⓖ Sand dunes are frequently reshaped by weathering and erosion.

Ⓗ Sand dunes have peaks with higher elevation heights than hills or mountains.

Ⓙ All of the above

9 Satellite images provide evidence for changes to land surfaces over time. In 2000, Iceland's glacier position was photographed.



What information can be interpreted from this satellite image? **(8.2E)**

Ⓐ How much the glacier has advanced over 9 years

Ⓑ How much the glacier has expanded over 27 years

Ⓒ The vast amount of land occupied by the glacier

Ⓓ How much the glacier has receded over 27 years

10 As part of an investigation about topographic maps, students are given cardboard, scissors, markers, and hot glue. Which change would make the investigation safer? **(8.1A)**

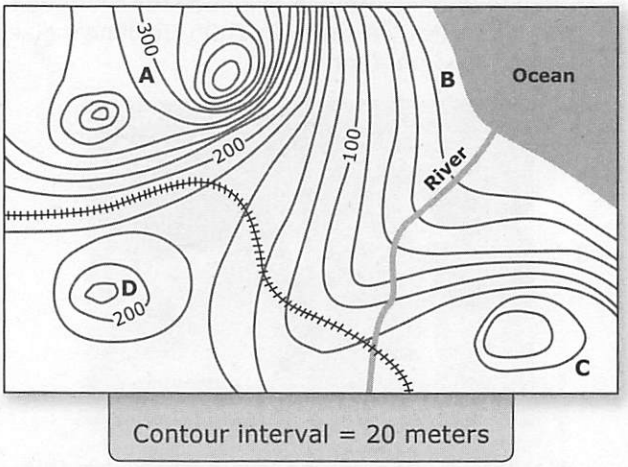
Ⓕ Use foam board instead of cardboard

Ⓖ Use map pencils instead of markers

Ⓗ Use white glue instead of hot glue

Ⓙ Use box cutters instead of scissors

Use the topographic map to answer questions 11–14.



11 What is the scale of the contour lines? **(8.2C)**

Ⓐ 25 m

Ⓑ 10 m

Ⓒ 20 m

Ⓓ 50 m

12 Which of the following is an advantage of the topographic map? **(8.3C)**

Ⓕ The topographic map shows changes to the terrain after the map's creation.

Ⓖ The topographic map shows current natural disasters, such as hurricanes and floods.

Ⓗ The topographic map shows changes in elevation of the terrain.

Ⓙ The topographic map shows weathering effects over time.

13 A city developer is considering building an amusement park near a local river. What tool would help the developer predict the future path of the river? **(8.3A)**

Ⓐ Series of topographic maps in chronological order

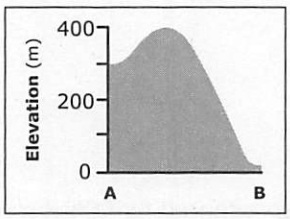
Ⓑ Series of city maps from nearby cities

Ⓒ Guide map of the new amusement park

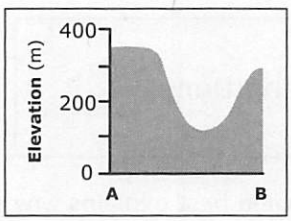
Ⓓ Thermal map of the area

14 Which profile graph accurately describes the terrain from Location A to Location B? **(8.2D)**

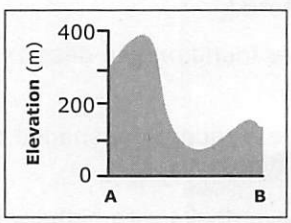
Ⓕ



Ⓖ



Ⓗ



Ⓙ