

Grade 8 Science



Texas Assessment Review and Practice

Includes

- Review and Practice for Grades 6, 7 and 8 Assessed TEKS
- TEKS practice items in 4 reporting categories
 - Matter and Energy
 - Forces, Motion and Energy
 - Earth and Space
 - Organisms and Environment*plus* Scientific Investigation and Reasoning Skills
- TEKS Practice Test A and Practice Test B

SAMPLER

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8.9.C

(9) **Earth and space.** The student knows that natural events can impact Earth systems. The student is expected to: (C) interpret topographic maps and satellite views to identify land and erosional features and predict how these features may be reshaped by weathering.

STANDARD REVIEW

A topographic map is a map that shows surface features, or topography, of the Earth. Topographic maps show both natural features, such as rivers, lakes, and mountains, and features made by humans, such as cities, roads, and bridges. Topographic maps also show elevation. Elevation is the height of an object above sea level. The elevation at sea level is 0. On a topographic map, contour lines are used to show elevation. Contour lines are lines that connect points of equal elevation. For example, one contour line would connect points on a map that have an elevation of 100 ft. Another line would connect points on a map that have an elevation of 200 ft. The difference in elevation between one contour line and the next is called the contour interval. Contour lines that are close together show a steep slope. Contour lines that are spaced far apart show a gentle slope. Contour lines are the key to explaining the size and shape of landforms on a topographic map. Many of today's maps are made by remote sensing. Remote sensing is a way to collect information about something without physically being there. Remote sensing can be as basic as putting cameras on airplanes. However, many mapmakers rely on more sophisticated technology, such as satellites. Satellites can also detect energy that your eyes cannot. Remote sensors gather data about energy coming from Earth's surface and send the data back to receiving stations on Earth. A computer is then used to process the information to make a picture you can see. Radar is a tool that uses waves of energy to map Earth's surface. Waves of energy are sent from a satellite to the area being observed. The waves are then reflected from the area to a receiver on the satellite. The distance and the speed with which the waves travel to the area and back are measured and analyzed to create a map of the area. The waves used in radar can move through clouds and water.

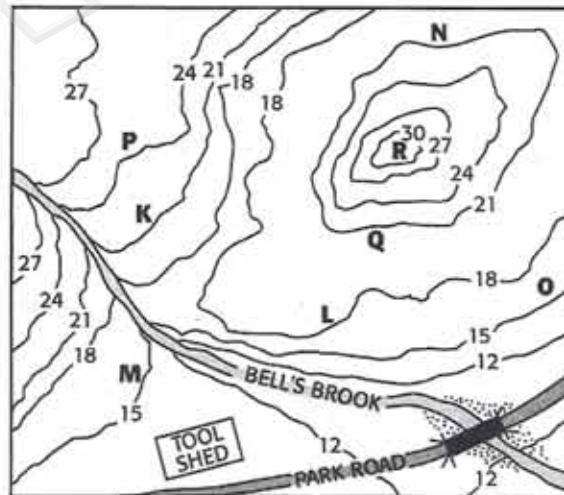
Topographical maps and satellite views can provide insight as to how surface features may be reshaped by weathering. The process by which water, wind, ice, and heat break down rock is called weathering. Weathering is important because it breaks down rock into fragments. These rock and mineral fragments are the sediment of which much sedimentary rock is made. The process by which sediment is removed from its source is called erosion. The process in which sediment moved by erosion is dropped and comes to rest is called deposition. Grains of sand and other sediment are eroded from hills and mountains and wash down streams and rivers to a new location. Over time, the sediment forms thick layers at the new location. Eventually, the grains of sediment are compacted and cemented together to form sedimentary rock.

8.9.C

STANDARD PRACTICE

- 1 How does water running downhill reshape Earth's surface?
 - A through weathering, transport, and deposition
 - B through evaporation, condensation, and precipitation
 - C through erosion, pressure, and rock formation
 - D through channeling, freezing, and boiling

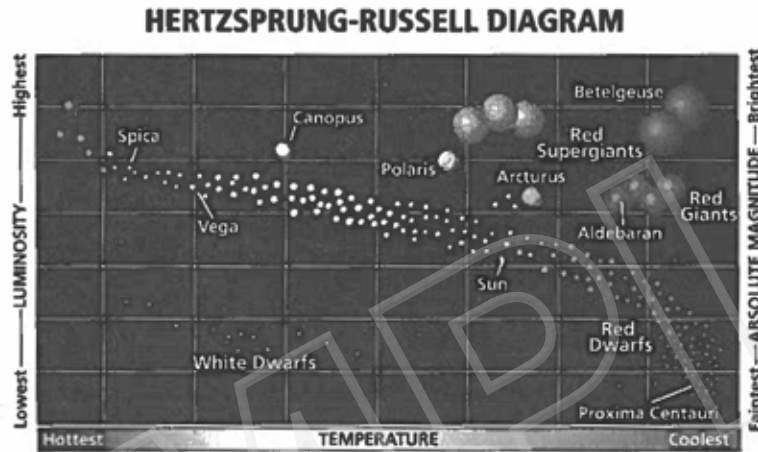
- 2 When does erosion occur?
 - F after water, ice, and wind create rock from soil and sediment
 - G as tectonic plates move against each other, causing earthquakes
 - H when volcanic activity occurs at areas weakened by plate movement
 - J as water, ice, wind, and/or gravity move soil and sediment



- 3 Bryan drew the map shown above. Which two points are at the same elevation?
 - A O and M
 - B N and R
 - C Q and K
 - D L and P

Name _____ Date _____

30 Which type of star is found in the main sequence on the Hertzsprung-Russell Diagram?



- F red supergiant
- G red giant
- H white dwarf
- J red dwarf

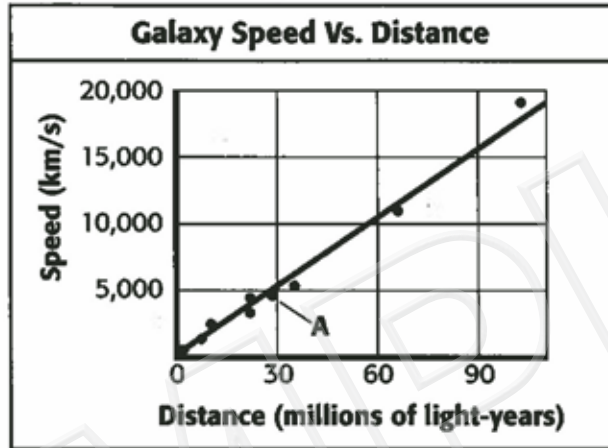
31 The Sun is

- A near the center of the Milky Way galaxy.
- B in a globular cluster off of the galactic disc.
- C about 2/3 of the way out from the center of the Milky Way.
- D in the center of the Virgo supercluster.

32 Electromagnetic waves that humans can see make up the

- F visible spectrum.
- G electromagnetic spectrum.
- H sound wave system.
- J longitudinal waves.

- 33 The graph below shows Hubble's law, which relates how far galaxies are from Earth and how fast they are moving away from Earth. How far is galaxy A from Earth?

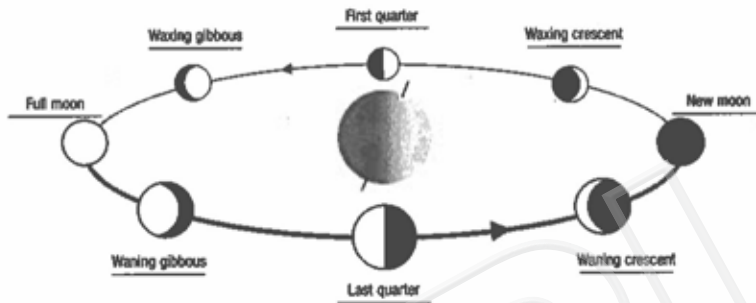


- A about 5,000 km
 B about 30 million light-years
 C about 10,000 km
 D about 40 million light-years
- 34 Which of the following is a piece of evidence that supports the big bang theory?
- F Most galaxies in the universe are moving away from the Milky Way.
 G Most galaxies in the universe are moving toward the Milky Way.
 H Most galaxies in the universe are stationary with respect to the Milky Way.
 J Most galaxies in the universe are colliding with other galaxies.

PRACTICE TEST B

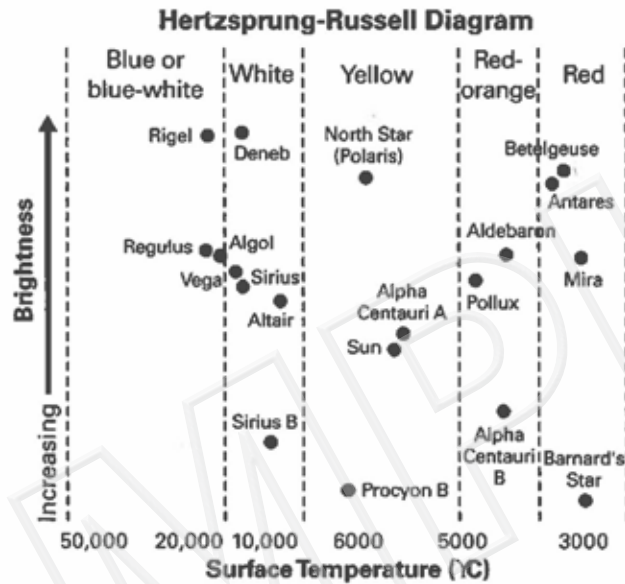
Name _____ Date _____

28 Study the picture of the moon's phases below. What is happening when Earth's moon is waxing?



- F The sunlit part we see is increasing.
 - G The sunlit part we see is decreasing.
 - H The moon appears to stay the same.
 - J The moon disappears from sight.
- 29 What type of tide is produced when Earth experiences a third quarter Moon?
- A neap tide
 - B lunar tide
 - C Proxigean tide
 - D spring tide

- 30 Look at the Hertzsprung-Russell Diagram. Which of the following is a star that is small, dim, and red?



- F Betelgeuse
 - G Sirius B
 - H Procyon B
 - J Barnard's Star
- 31 Which statement below best describes our Sun and its placement in the Milky Way galaxy?
- A The Sun is a high-mass blue-white star two-thirds of the distance from the center of the galactic core to the edge of the disk.
 - B The Sun is a high-mass blue-white star near the center of the galactic core.
 - C The Sun is a medium-mass yellow star two-thirds of the distance from the center of the galactic core to the edge of the disk.
 - D The Sun is a medium-mass yellow star near the center of the galactic core.