

Skills Worksheet

Concept Review**MATCHING**

Write the letter of the term or phrase on the right that best matches the description on the left in the space provided.

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|---|---------------------------|
| _____ 1. process of returning land to its original or better condition after mining | a. alloy |
| _____ 2. the wall of a coal seam | b. surface mining |
| _____ 3. minerals that contain valuable substances | c. longwall |
| _____ 4. two or more metals that are combined | d. subsidence |
| _____ 5. open pit used to mine materials near the surface | e. ore minerals |
| _____ 6. process by which crushed ore is melted at high temperatures to separate impurities from molten metal | f. aggregates |
| _____ 7. mining method used when ore deposits are located close to Earth's surface | g. reclamation |
| _____ 8. sand, gravel, and crushed rock | h. quarry |
| _____ 9. minerals concentrated by wind and water movement into surface deposits | i. smelting |
| _____ 10. the sinking of regions of the ground with little or no horizontal movement | j. placer deposits |

MULTIPLE CHOICE

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- _____ 11. The first step in surface coal mining is
- a.** to remove and set aside the soil that covers the area to be mined.
 - b.** to use heavy equipment to take core samples.
 - c.** to test to see if quarrying would be more effective.
 - d.** to make cuts in the coal for easier removal.
- _____ 12. A serious hazard of coal mining is
- a.** a high-pressure water blast.
 - b.** an aggregation.
 - c.** excess overburden.
 - d.** an underground mine fire.

Concept Review *continued*

- _____ 13. Dredging streambeds may be an effective technique for mining
- a. silica.
 - b. coal.
 - c. gold.
 - d. sulfur.
- _____ 14. Before mining a site, a mining company must do all of the following *except*
- a. obtain permits from state agencies.
 - b. comply with federal regulations.
 - c. obtain bonding.
 - d. cut into a section of the longwall.
- _____ 15. What is the arrangement of atoms in a mineral?
- a. porous, woven patterns
 - b. regular, repeating geometric patterns
 - c. irregular patterns
 - d. clumped groups of like elements
- _____ 16. Nonmetallic minerals prized mainly for their beauty, rarity, or durability are called
- a. aggregates.
 - b. overburden.
 - c. native elements.
 - d. gemstones.
- _____ 17. Which of the following is *not* affected when soil is removed from a surface mine?
- a. plant life
 - b. soil nutrients
 - c. animal habitat
 - d. deep coal seams
- _____ 18. Mining companies can identify areas of valuable mineral resources by
- a. mineral exploration.
 - b. smelting.
 - c. mineral excavation.
 - d. dredging.
- _____ 19. Solar evaporation is practical in order to obtain salt from sea water in climates where rainfall is exceeded by
- a. evaporation.
 - b. snowfall.
 - c. high-speed winds.
 - d. humidity.
- _____ 20. Which of the following is *not* a way that ore minerals may form?
- a. cooling of magma
 - b. circulation of hydrothermal solutions through rocks
 - c. flooding of empty streambeds and rivers
 - d. evaporation of water that contains salts
- _____ 21. Which of the following is one reason why undersea mining has been largely unsuccessful to date?
- a. Deposits at great water depths are difficult to work.
 - b. Ocean water is too salty.
 - c. There is too much aggregate on the ocean floor.
 - d. Magma exists under the ocean floor.