

Name _____

Class _____

Date _____

Skills Worksheet

Directed Reading A

Section: Metamorphic Rock

- _____ 1. Which rock's name comes from the Greek words for "changed" and "shape"?
 - a. metamorphic
 - b. sedimentary
 - c. fossiliferous limestone
 - d. igneous
- _____ 2. What kind of rocks are rocks in which the structure, texture, or composition have been changed?
 - a. fossiliferous limestone
 - b. igneous
 - c. metamorphic
 - d. sedimentary
- _____ 3. What force or forces can create metamorphic rocks?
 - a. cooling
 - b. heat and pressure
 - c. melting
 - d. erosion

ORIGINS OF METAMORPHIC ROCK

4. The heat and pressure at which some metamorphic rocks originally form allow them to sometimes remain _____ at pressures and temperatures that would melt other rock.
5. Pressure caused by large movements within the crust sometimes cause the _____ in metamorphic rocks to align themselves in parallel bands.
6. During _____, rock is heated by nearby magma.
7. The effect of heat on rock decreases as the rock's _____ decreases. from the magma increases and its _____ decreases.
8. When pressure builds up in rock which is located under other rock formations, _____ occurs.
9. Regional metamorphism occurs deep in the Earth's _____

Directed Reading A *continued*



COMPOSITION OF METAMORPHIC ROCK

- _____ 10. Which of the following is NOT a property of an index mineral?
- a. forms only at a certain temperature
 - b. forms only in sedimentary rock
 - c. forms only at certain temperatures
 - d. forms only in metamorphic rocks
- _____ 11. Which of the following minerals is an example of an index mineral?
- a. calcite
 - b. quartz
 - c. staurolite
 - d. hematite
- _____ 12. Which of the following is an example of a mineral that indicates that a metamorphic rock was formed at a great depth and under extreme heat and pressure?
- a. chlorite
 - b. mica
 - c. magma
 - d. garnet



TEXTURES OF METAMORPHIC ROCK

- _____ 13. What do we call metamorphic rocks in which mineral grains are NOT aligned?
- a. foliated
 - b. intrusive
 - c. nonfoliated
 - d. extrusive
- _____ 14. What is the process in which a mineral changes composition during metamorphism called?
- a. recrystallization
 - b. nonfoliation
 - c. foliation
 - d. deformation
- _____ 15. After quartz limestone has recrystallized, the new rock is called
- a. schist.
 - b. gneiss.
 - c. slate.
 - d. quartzite.



Directed Reading A *continued*

Match the correct description with the correct term. Write the letter in the space provided.

- | | |
|---|--------------------|
| _____ 16. a rock in which coarse-grained minerals separate into distinct bands | a. foliated |
| _____ 17. a foliated metamorphic rock made from shale | b. shale |
| _____ 18. the texture of a metamorphic rock in which the mineral grains are arranged in planes or bands | c. slate |
| | d. phyllite |
| | e. schist |
| | f. gneiss |
| _____ 19. a metamorphic rock made from phyllite that has been exposed to heat and pressure | |
| _____ 20. a sedimentary rock made of layers of clay | |
| _____ 21. a metamorphic rock made from slate that has been subjected to heat and pressure | |

METAMORPHIC ROCK STRUCTURES

- _____ 22. What is a change in the shape of a rock caused by a force placed on it called?
- a. deformation**
 - b. recrystallization**
 - c. foliation**
 - d. nonfoliation**