

CHAPTER REVIEW

Chapter **12**

The Formation of Resources

I. Vocabulary Review

Circle the word or phrase that does not belong.

1. igneous rock, chemical sedimentary rock, lava, Bowen's reaction series
2. clastic sedimentary rock, rock gypsum, conglomerate, sandstone
3. glass, rock cycle, metamorphic rock, sedimentary rock
4. contact metamorphism, intrusive igneous rock, magma, regional metamorphism
5. regional metamorphism, slate, gneiss, sedimentary rock

Match each item in Column I with the most appropriate item in Column II. Write the letter for that item in the blank at the left.

Column I	Column II
_____ 6. forms when lava cools quickly at Earth's surface	a. sedimentary rock
_____ 7. forms when sand, mud, and clay cement together	b. magma
_____ 8. has large crystals	c. intrusive igneous rock
_____ 9. called lava when it comes to Earth's surface	d. metamorphic rock
_____ 10. forms when exposed to high pressure and heat	e. extrusive igneous rock

II. Concept Review

11. Distinguish contact metamorphosis from regional metamorphosis. _____

Answer the following in phrases or complete sentences.

12. Why is the formation of metamorphic rock more similar to that of igneous rock than to sedimentary rock? _____

13. If an area contains large amounts of slate, schist, or gneiss, what process probably formed the rocks? _____

Chapter Review 12 (continued)

14. In Bowen's reaction series, how do the tetrahedra in feldspars differ from those of the silicates?

15. How do the appearance of the crystals in intrusive igneous rocks differ from those of extrusive igneous rocks?

16. Give one example of resources used in the building of a car from each class of rock.

III. Skills/Process Review

Answer the following questions in phrases or complete sentences.

17. How do the tetrahedra of olivine differ from the tetrahedra of all other minerals in Bowen's reaction series?

18. Quartz is the hardest mineral to form in Bowen's reaction series. Why?

19. In Bowen's reactions series, why do the minerals formed at the highest temperatures break down more easily than those formed at cooler temperatures?

IV. Feature Review

20. **Science and Society: Coal: A Hearth-Warming Fossil Fuel** Plants need carbon dioxide to carry out photosynthesis; in turn they give off oxygen, which organisms use for respiration. How might we use plants to reduce the amount of carbon dioxide released by the burning of coal?
