1. Why is it that building materials have such low intrinsic value?

2. Why and how is it that, for instance cement, is so much higher in selling price than raw rock?

3. Why are building materials usually mined relatively close to where they are used?

4. What are two large/huge examples of the carving of stone?

5.a. How are the rock terms “granite” and “limestone” used commercially?
    b. According to the commercial meaning, what features does each of these two rock types possess (e.g., how are they distinguished from each other)?

6.a. How does slate form?
    b. What are its physical properties, and how do they affect its use?

7. What is the “largest-volume, hard-rock mineral commodity” used in the US and world-wide?

8.a. Which two rock types are the most heavily quarried?
    b. What is the composition of these rocks?

9.a. What is vermiculite?
    b. What special properties does it have, and what is it used for?

10.a. What is perlite?
    b. What special properties does it have, and what is it used for?

11. Why are treated rocks more expensive than untreated rocks? Give appropriate details.

12. What materials are needed to make cement?

13.a. What is the purpose of calcining limestone?
    b. What is the environmentally undesirable result of this process?

14. Why do we industrially calcine gypsum?

15. How is plasterboard (aka wallboard) made?

16. How does gypsum form geologically?

17. How and from what are bricks and other ceramic materials made?

18.a. What is the main ingredient of glass?
    b. What other components/minerals are added, and for what reason?
19.a. To what does the name “asbestos” refer?
   b. What useful properties does it have?
   c. Why has production/mining of asbestos decreased so drastically?

20.a. What does the term “refractory” mean?
   b. For what purposes do we need refractory materials?
   c. What elements and minerals are important in producing refractory materials?

21. What does a flux do?

22. In what common products are there abundant mineral fillers?

23.a. Under what geologic conditions do natural diamonds form?
   b. Which countries are the major producers of natural diamond?

24.a. What are the two kinds of synthetic diamond that are made?
   b. What industrial processes are used?
   c. Besides their use as gems, what other purposes do diamonds have?

25.a. What is the mineral barite typically used for?
   b. Which of its properties makes it useful for those purposes?

26.a. What are the zeolites?
   b. For which applications are they used and why?

27.a. How does natural asphalt form?
   b. How is most asphalt commercially produced?

28. Which properties of a mineral allow it to be considered as a gemstone?

29. How do pearls form?

Focus on: Figs. 10.1, 10.10, 10.15, 10.16, 10.20, 10.21, 10.22, 10.24, 10.29, 10.34
Tables 10.3, 10.4, 10.5, 10.7
Boxes 10.1, 10.2, 10.3