

Chapter 21

Use with Section 3

REINFORCEMENT

● Identifying Organisms

Answer the following questions using information from the textbook.

1. Why don't scientists use common names to identify organisms? _____

2. Why are scientific names important? Give four functions for scientific names.

a. _____

b. _____

c. _____

d. _____

3. The system of _____ gives each organism a unique scientific name.

Use the key to species of birch trees below to answer the questions that follow.

1a. bark dark, reddish-brown, yellowish-brown to black . . . go to 2

1b. bark creamy white, pinkish, or gray . . . go to 6

2a. bark and twigs with wintergreen fragrance when cut . . . go to 3

2b. bark and twigs without a fragrance when cut . . . go to 5

3a. leaves with 8–12 pairs of veins . . . go to 4

3b. leaves with 4–6 pairs of veins . . . *Betula uber*

4a. bark dark red to almost black; scales smooth, 6–12 mm long . . . *Betula lenta*

4b. bark reddish-brown, peeling in loose, ragged sheets, scales hairy, 5–7 mm . . . *Betula alleghaniensis*

5a. branchlets covered near tip with many small glands, Rocky Mountains or Western Canada . . . *Betula occidentalis*

5b. branchlets smooth, shiny, no glands present, eastern U.S. . . . *Betula nigra*

6a. leaves hairy on lower surface . . . go to 7

6b. leaves smooth, hairless underside . . . go to 8

7a. leaves 5–13 cm long, pointed tip . . . *Betula papyrifera*

7b. leaves 3–7 cm long, pointed tip, winter buds shiny . . . *Betula pendula*

8a. bark dull gray to grayish-white, smooth and not peeling . . . *Betula populifolia*

8b. bark white to pinkish-white, peeling . . . go to 9

9a. leaves 6–10 cm, round base . . . *Betula caerulea*

9b. leaves 3–5 cm, squared base . . . *Betula pubescens*.

1. Are the leaves of *Betula populifolia* hairy or smooth on the lower surface? _____

2. How many pairs of veins are on the leaves of *Betula lenta*? _____

3. What is a characteristic of the bark of *Betula alleghaniensis*? _____

4. When a twig of *Betula nigra* is broken, does it give off a wintergreen fragrance? _____