Name _____ Class _____ Date _____

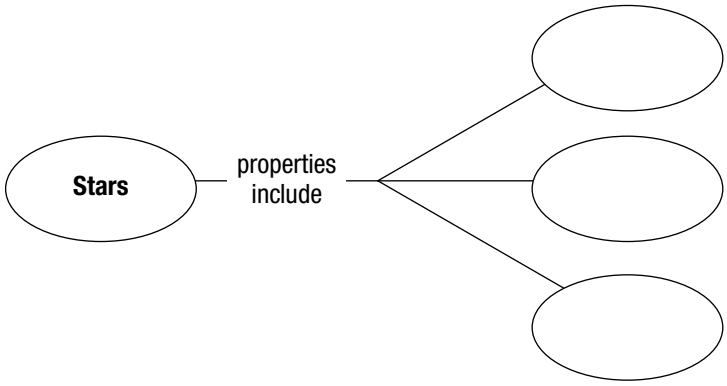
Section 26.2 Stars

(pages 834–839)

This section discusses how scientists classify stars. It also describes other important properties of stars.

Reading Strategy (page 834)

Using Prior Knowledge Add what you already know about stars to the concept map. After you read, complete your concept map, adding more ovals as needed. For more information on this Reading Strategy, see the **Reading and Study Skills** in the **Skills and Reference Handbook** at the end of your textbook.



Distances to the Stars (pages 834–836)

1. Circle the letter of each sentence that is true about a light-year.

a. It is a typical unit of measure for distances on Earth.

b. It is a distance of about 9.5 trillion kilometers.

c. It is the distance that light travels in a vacuum in a year.

d. It is a unit of time.

2. Is the following sentence true or false? Parallax is the apparent change in position of an object with respect to a distant background. _____

3. Astronomers measure the parallax of a nearby star to determine its _____.

Properties of Stars (pages 836–837)

4. Circle the letter of each property that astronomers use to classify stars.

a. brightness b. distance

c. color d. size

5. Is the following sentence true or false? The brightness of a star as it appears from Earth is called its absolute brightness. _____

6. A star's _____ can be used to identify different elements in the star.

7. Describe the chemical makeup of most stars. _____

_____

The Hertzsprung-Russell Diagram (pages 838–839)

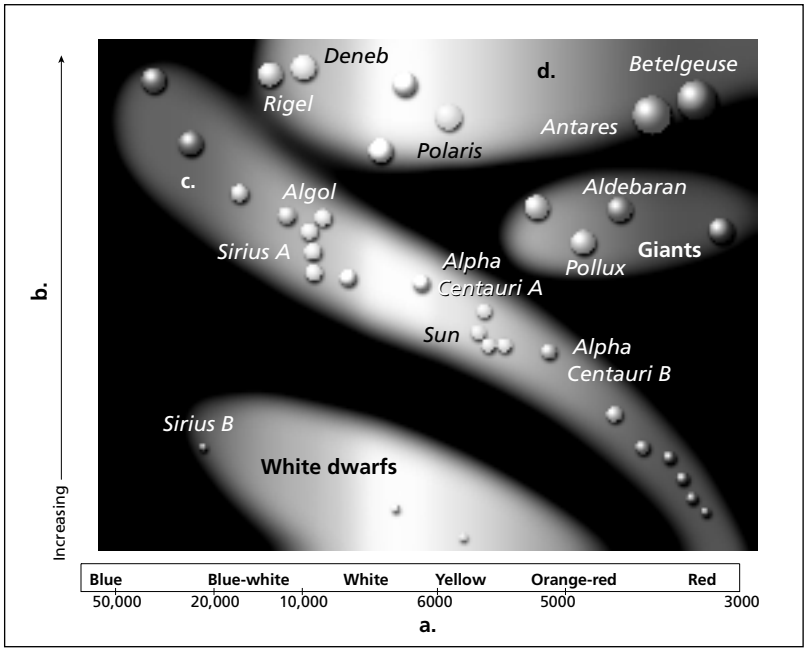
8. Circle the letter of each way that Hertzsprung-Russell (H-R) diagrams might be used.

a. to study sizes of stars

b. to study distant planets

c. to determine a star's absolute brightness

d. to determine a star's surface temperature or color



9. Provide labels for each of the letters shown on the H-R diagram above.

a. _____ b. _____

c. _____ d. _____

10. Circle the letter of each sentence that is true about supergiants.

a. They are found at the upper right of the H-R diagram.

b. They are much brighter than main sequence stars of the same temperature.

c. They are 100 to 1000 times the diameter of the sun.

d. They are smaller and fainter than giants.

11. How does the brightness of white dwarfs compare to the brightness of main sequence stars? _____

_____