

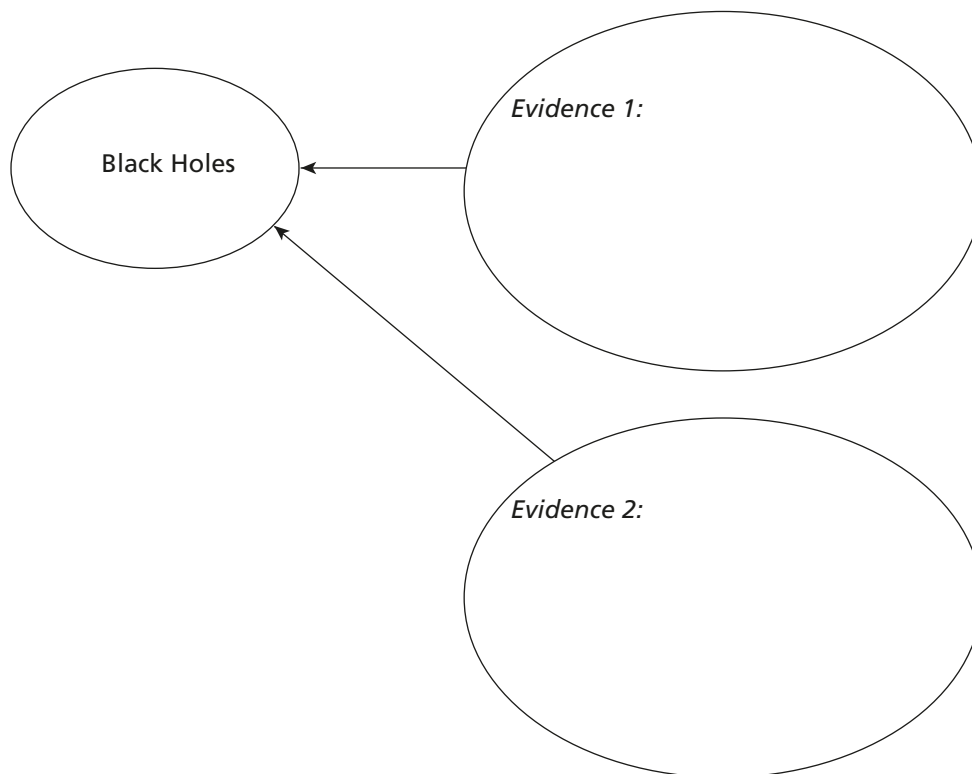
Stars, Galaxies, and the Universe ▪ *Reading/Notetaking Guide*

Lives of Stars (pp. 608–613)

This section explains how the life of a star begins. It also explains what determines how long a star lives and what happens when a star runs out of fuel.

Use Target Reading Skills

As you read about black holes, complete the graphic organizer showing supporting evidence for the hypothesis that black holes exist.



The Lives of Stars (p. 609)

1. Is the following sentence true or false? All stars begin their lives as parts of nebulae. _____
2. A large amount of gas and dust spread out in an immense volume is called a(n) _____.
3. A contracting cloud of gas and dust with enough mass to form a star is called a(n) _____.
4. Describe how a star is born.

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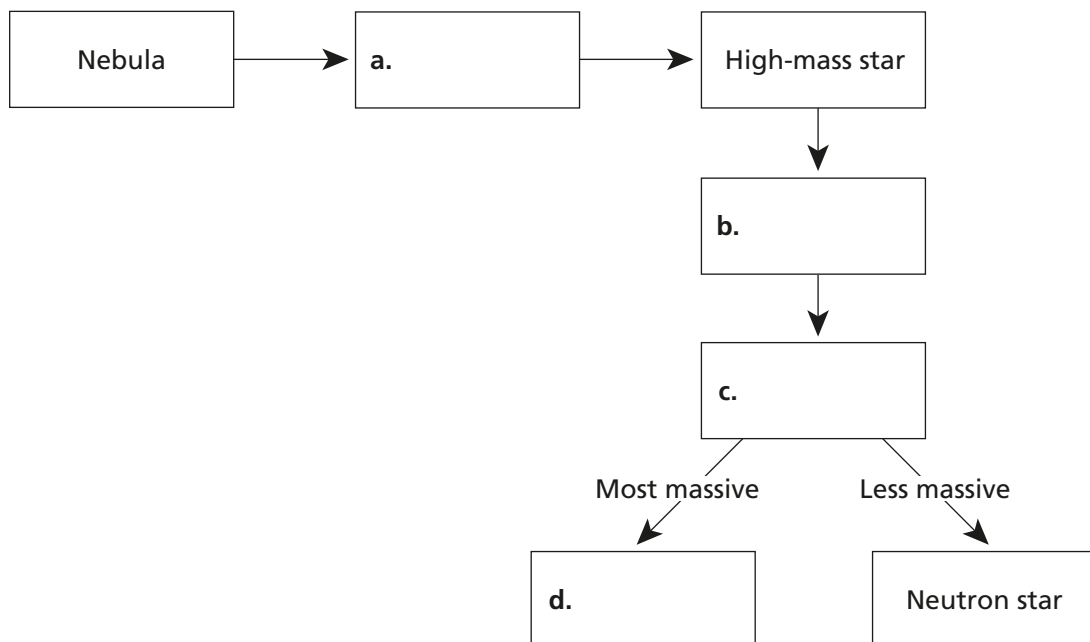
5. Circle the letter of the factor that determines how long a star lives.
- its mass
 - its brightness
 - its volume
 - its temperature
6. Is the following sentence true or false? Stars with more mass last longer than stars with less mass. _____

Deaths of Stars (pp. 610–613)

Match each stage of a star with its definition.

Stage of a Star	Definition
_____ 7. White dwarf	a. The small, dense remains of a high-mass star that is called a pulsar when it spins
_____ 8. Planetary nebula	b. Explosion of a high-mass star
_____ 9. Supernova	c. An object whose gravity is so strong nothing can escape
_____ 10. Neutron star	d. A glowing cloud of gas formed from the expanding outer layers of a red giant
_____ 11. Black hole	e. The cooled core of a star that has run out of fuel

12. Complete the flowchart to show the stages in the life of a high-mass star.



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Lives of Stars *(continued)*

e. What determines which stage occurs after a supernova?

f. How do all stars begin?

g. What is the relationship between mass and the end stages of stars?

13. How do astronomers think the sun may have begun?

14. Since no form of radiation can ever get out of a black hole, how can astronomers detect where black holes are?
