

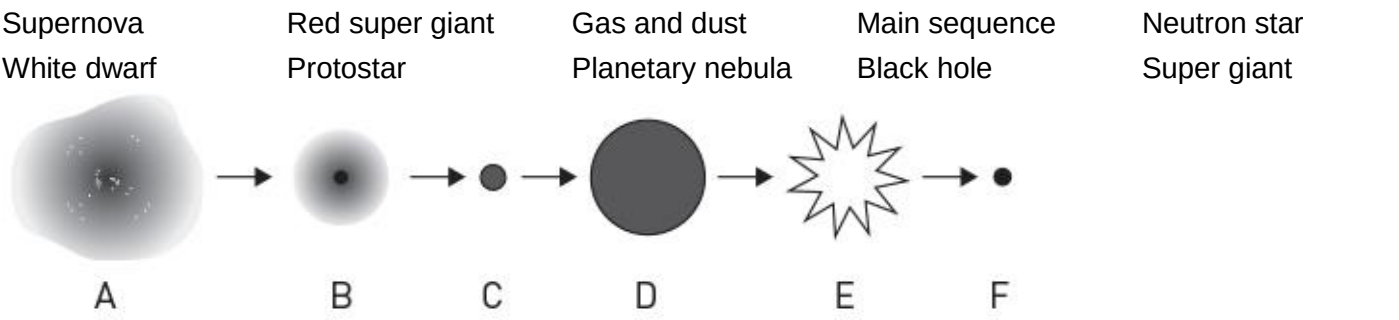
Student worksheet

6.3 Stars have a life cycle

Pages 144–145

Stellar evolution

1 Use the wordlist below to correctly identify each of the stages (A to F) in a star's life cycle if it initially has a mass greater than eight solar masses and a core mass greater than three solar masses. Write your answers in the table provided.



A	D
B	E
C	F

- 2 How is a neutron star formed?
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- 3 Describe the process that is occurring now in our Sun to produce its energy and maintain its stability.
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Name: _____

Class: _____

- 4 Explain what will happen inside, and what will happen to, the Sun when it reaches the end of the main sequence part of its life cycle.

Extend your understanding

Astronomers have determined that the centre of our Milky Way galaxy is located in the constellation of Sagittarius, and have also hypothesised that there is a super massive black hole located there – dubbed Sagittarius A*.

- 5 What evidence have astronomers been able to gather in support of the hypothesis that Sagittarius A* is a super massive black hole? Use the internet to research the answer.
