

Name _____

From Stellar Endings to Cosmic Mysteries: Can a Star Turn into a Black Hole?

Multiple Choice Questions

1. What is the primary factor that determines whether a star can turn into a black hole?
 - a) Its age
 - b) Its brightness
 - c) Its mass
 - d) Its distance from Earth

2. What process occurs inside a star's core that powers its radiance?
 - a) Nuclear fission
 - b) Nuclear fusion
 - c) Nuclear decay
 - d) Nuclear transmutation

3. What fate awaits lower-mass stars, such as our Sun, at the end of their life cycles?
 - a) Formation of a white dwarf
 - b) Explosion as a supernova
 - c) Transformation into a neutron star
 - d) Collapse into a black hole

4. What is the boundary beyond which nothing can escape from a black hole's gravitational pull?
 - a) Event horizon
 - b) Event singularity
 - c) Event boundary
 - d) Event perimeter

5. Why are black holes considered mysterious celestial objects?
 - a) Because they are exceptionally bright
 - b) Because their formation is not well understood
 - c) Because they are the most common stars in the universe
 - d) Because they emit visible light

