Name _____

The Brilliant Beings Called Stars

Short Answer Key

1. Stars are born from nebulas, which contain hydrogen and helium. Gravity causes these materials to come together, forming a dense core that eventually ignites into a star.
2. Nuclear fusion is the process in a star's core where hydrogen atoms combine to form helium, releasing an enormous amount of energy in the form of light and heat. This energy sustains the star's brightness and high temperature.
3. The three main types of stars are:
    - Yellowish-white stars (e.g., our Sun)
    - Red dwarfs (cooler and reddish)
    - Giants and supergiants (larger and often red or blue)
4. The lifecycle of a star varies depending on its size. Small stars like our Sun expand into red giants, shed their outer layers, and become white dwarfs. Larger stars can end in supernova explosions, leaving behind remnants like neutron stars or black holes.
5. Constellations are patterns of stars as seen from Earth, and they have been used for navigation, timekeeping, and storytelling in various cultures. They hold cultural significance and often feature in myths and legends.