

Name _____

The Sun: Our Solar System's Glorious Star

Short Answer Key

1. The Sun's radiant energy heats the Earth's surface, causing air to rise and form areas of high and low pressure, which drive weather patterns and atmospheric dynamics.
2. Photosynthesis is the process by which plants convert sunlight into chemical energy (glucose), serving as the foundation of the food chain.
3. During a solar eclipse, the Moon passes between the Earth and the Sun, temporarily blocking the Sun's light. It is a valuable opportunity for scientific study because it allows scientists to observe the Sun's outer atmosphere, known as the corona.
4. Nuclear fusion in the Sun's core creates helium from hydrogen, releasing an immense amount of energy. This process also produces heavier elements like carbon and oxygen.
5. In the distant future, the Sun will expand into a red giant, potentially engulfing some inner planets like Mercury and Venus. Eventually, it will shed its outer layers and become a white dwarf, marking the end of its active phase as a star.

