

Name _____

The Fiery Heart: How the Sun Produces Energy and Heat

Multiple Choice Questions

1. What is the primary process by which the Sun produces energy?
 - A) Nuclear fission
 - B) Nuclear fusion
 - C) Chemical reactions
 - D) Electromagnetic radiation

2. What is the temperature at the core of the Sun where nuclear fusion occurs?
 - A) 100,000 degrees Celsius
 - B) 1 million degrees Celsius
 - C) 15 million degrees Celsius
 - D) 27 million degrees Celsius

3. How is energy transported in the radiative zone of the Sun?
 - A) Through the rising and sinking of hot gas
 - B) As electromagnetic radiation
 - C) By fusion reactions
 - D) Through the process of conduction

4. What is the role of the photosphere in the Sun's energy production?
 - A) It generates nuclear fusion reactions.
 - B) It transports energy to outer space.
 - C) It is where solar winds originate.
 - D) It emits light and heat into space.

5. What are sunspots, and what can they be associated with?
 - A) Bright areas on the Sun's surface associated with nuclear fusion
 - B) Dark and cooler areas on the Sun's surface associated with magnetic activity
 - C) Eruptions of energy from the Sun
 - D) Meteorites crashing into the Sun

