

Name \_\_\_\_\_

## Solar Sizzle: Unveiling the Surface Temperature of the Sun

### Open-Ended Response Questions

1. Discuss the significance of the Sun's photosphere temperature in relation to its role in our solar system and its impact on Earth's climate.
2. Explain the mystery known as the "solar corona problem" – why the outer layers of the Sun are hotter than the photosphere – and discuss current scientific theories.
3. Describe the mechanisms of heat transfer within the Sun, from its core to its surface, and how these processes contribute to the Sun's surface temperature.
4. Reflect on the importance of the Sun's surface temperature for supporting life on Earth and sustaining the conditions necessary for human existence.

