Name:

Complete the light path for the incident star light into the telescope. All the light should end up at the focal point.
Look at the two images of the Sun – the entire Sun and the close-up view of the outer edge.

Draw what you see:

What happens to iron filings when a magnet is near? Describe any patterns you think appear.

How are the iron filing patterns similar to features on the Sun? You may draw pictures if you wish.

Choose one answer. Sunspots are:

- Hotter than the photosphere. Magnetic fields speed up the plasma and raise the temperature.
- The same temperature as the photosphere.
- Cooler than the photosphere. Magnetic fields slow down the plasma in the convection cells.
Plasma in the Sun

What are the basic properties of plasma?

What conditions will change matter into a plasma?

When matter becomes a plasma, does it make a chemical or physical change?

How does the plasma behave like the iron filings? Include evidence from your observations of the Sun.
Energy transport in the Sun

Energy can be transferred in three ways. Define each method. Describe an example you observed in the lava lamp and in the Sun.

**Convection:**

Lava Lamp example:

Sun example:

**Conduction:**

Lava Lamp example:

Sun example:

**Radiation:**

Lava Lamp example:

Sun Example: