Module 6: The Sun  
Topic 1 Application: Making a Pinhole Viewer and Observing the Sun

**Lab Title**

Constructing and Using a Pinhole Viewer

**Hypothesis**

Using the Procedure and Data Collection section of the scientific investigation, read through the procedural information and, based on your understanding of the procedure, develop your own hypotheses which describe your expected results. Record these hypotheses below.

**Data**

Using the blank space provided on the Pinhole Viewer Scientific Investigation Report, describe the construction of your pinhole viewer, create an illustration of your observations, and record what you see. Also, you may want to include any other items of importance that you encounter during the scientific investigation. Make sure to be thorough in your descriptions so that someone who has never constructed a pinhole viewer would understand what you are documenting.

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Notes:

**Data Analysis**

Once you have completed the Procedure and Data portions of the scientific investigation, provide responses to the following questions:

1. Why did you choose the either paper method or box method to complete your pinhole viewer?
2. Describe the appearance of the sun when using the pinhole viewer?
3. Why was the sun inverted on the pinhole viewer?
4. What do you think would happen if you made the pinhole larger?
5. What could you do to make your viewer more effective?

**Conclusion**

Compose three to four sentences describing an overall conclusion based on your data. Were your hypotheses true or false, and how do you know? Use the data and notes that you collected from your investigation to form your conclusion. Make sure that you include information that you gained from data analysis to support your conclusion.

**Experimental Sources of Error**

Provide responses to the following questions: Are there any sources of error? If so, what are they, and what could be done to minimize error?