

Bill Nye: Color and Light Introduction (Link to Video on Class Web Site)

1. What is **white light**? Describe the different properties you learn about it.
2. What makes a substance **black** in color? Describe properties of black objects.
3. What determines the **color of an object**? (Hint: Boy holding up the sign)
4. **Why is the sky blue** based on what you are learning about light and color?
5. How did your view of the world change after seeing this video? Give at least one example.

The following properties of sunlight will be very important in designing your solar heater. Look up a scientific definition of each and draw a labeled sketch to help explain.

Transmittance

Definition	Labeled Diagram/Sketch

Reflection

Definition	Labeled Diagram/Sketch

Absorption

Definition	Labeled Diagram/Sketch

Insulation

Definition	Labeled Diagram/Sketch

Design Sketch & Labels - Sketch a design for a solar cooker. It needs to be fully labeled, identifying all materials, all dimensions labeled, and explanation for all materials and design features on why they are important for the design.

Explain below in detail how exactly your design utilizes the following behaviors of light to be successful in creating a solar heater.

Transmittance -

Reflection -

Absorption -

Insulation -