

Getting in Light's Way Activity

Name: _____

Transparency: a measure of how much light can pass through a material. Materials are classified as either *transparent*, *translucent*, or *opaque*.

Use your textbook (pg. 274) to find the definitions for the following terms.

Transparent: _____

Translucent: _____

Opaque: _____

Shine a light on each of the following materials and determine whether or not the material is transparent, translucent, or opaque. Write the classification in the right hand side of the table.

Material	Classification
white paper	
black paper	
piece of plastic	
textbook	
aluminum foil	
wax paper	

Comparing Dark and Light Surfaces

How a given surface absorbs and reflects light is dependent on the type of surface that the light strikes. In this activity, you will shine a light on different surfaces to determine the extent to which they absorb and reflect light.

To begin, set up a white piece of foam board to use as a screen. For each of the objects below, shine the light onto the object and observe the effect on the white foam you are using as a screen. The object should be facing the white screen on a slight angle (look on pg. 274, figure 3).

After shining the light on the object, record your observation and then switch to the next object. The white screen remains in the same place throughout the activity.

Object	Observation
flat mirror	
white paper	
black paper	
felt	
aluminum foil	

The amount of light energy that can be absorbed or reflected by a material is determined by the colour, sheen (shininess), and texture of the material.

1. In this activity, which materials reflected the most light? Describe in terms of colour, sheen, and texture.
2. Which materials absorbed the most light?