Ice Melting Race

Objectives
Observe the nature of light energy and heat energy
Apply the concepts of absorption and reflection of light

Initial Questions
Which color reflects all wavelengths of light and which color absorbs all wavelengths of light?

Materials
- Ice cubes
- black and white construction paper (cut to 3” squares)
- pans or trays
- timer
- flashlight

Procedure
1. Place two ice cubes on a tray.
2. Cover one ice cube with a piece of black (or dark-colored) construction paper. Cover the other ice cube with a piece of white (or light-colored) piece of construction paper.
3. Hold a flashlight over each piece of ice. Make sure that they are equidistant from the cubes. Watch to see the rate at which each ice cube melts.

Questions

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<th>Time to Melt</th>
<th>Observations</th>
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<tbody>
<tr>
<td>Black Paper</td>
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<td>White Paper</td>
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What did you observe? Write your answer in terms of heat and light.

What are 5 other light sources that give off significant heat?

What are some things that we use which are powered by light?

Credit: adapted from Riverdeep – Resources on the Nature of Light, http://www.riverdeep.net/current/2002/01/010702_light_to.jhtml