



Caution: Lamp may get hot.

Materials:

- Lamp (use heat lamp if you have one, or experiment with different types of light bulbs)
- Container with dark soil
- Container with light soil (or rice or sand)
- Thermometer (pictured here is a cooking thermometer)

Instructions:

- 1) Place the two containers under the lamp. Adjust the lamp to be as close as possible. Make sure the light covers each container the same amount.



- 2) Place thermometer in each container, in the soil. If using one thermometer check the starting temperature of each soil.



- 3) Check the temperature of each soil every 10 minutes. Note the change in temperature every time you check.



Tell me about heat and color:

Darker substances absorb more light, and that energy heats them more. Lighter substances reflect more light and therefore heat more slowly.

Questions to think about:

- What places on earth heat quickly?
- What places on earth heat slowly?
- How do temperatures in cities compare to greener areas?
- How can cities heat more slowly?
- What absorbs more heat - land covered with snow or land with no snow?

Try this!

- Place ice outside on top of something dark, and the same amount on top of something light. Which melts first?
- Lay a white shirt and a black shirt outside on a sunny day. Make sure neither is in shade. Feel the shirts after 20 minutes. Which is warmer?