Modern Woodmen
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Simple Science: Arctic Amplification

Does color affect temperature? You can find out in the following experiment.

You'll need:

- Two identical containers – empty fruit or vegetable cans with labels and top lids removed are ideal.
- Waterproof white paint.
- Waterproof dark brown or black paint.
- Paintbrushes.
- Two small ice cubes, identically sized.

Procedure:

1. Paint the inside and outside of one of the cans with white paint.
2. Paint the other can with the darker paint.
3. When the cans are thoroughly dry, place them close together on a sunny windowsill or under identical sources of artificial light.
4. Add an ice cube to each can.
5. Measure the time it takes for the ice cubes to melt.

Discussion:

- Which ice cube melted first? Why?

Further investigation:

As a follow-up experiment:

1. Fill a pitcher with water.
2. Use the water in the pitcher to fill each can to the same level.
3. Place a thermometer in each can and record the temperature.
4. Leave the cans in a sunny windowsill for a few hours.
5. Measure the water temperature in each can again.
6. Compare the temperatures. Does the second experiment validate or disprove the results of the first experiment?