Which colours are hotter?

Brief summary:
In this experiment you will wrap one glass of water in white paper and another in black paper, place them in the sun and see which one records the highest temperature over a set period of time.

You will need:
- 2 water glasses
- Water
- White paper
- Black paper
- 2 rubber bands
- Thermometer

What to do:
Step 1. Cover the edges of one glass with white paper and the other glass with black paper, and secure both pieces of paper with a rubber band.

Step 2. Fill the glasses with the same amount of water in each and place the glasses in the sun for a couple of hours.

Step 3. After a couple of hours, measure the temperatures of the water in both glasses with your thermometer. The glass of water with the black paper should be hotter than the other glass of water.

Take it further:
Repeat the experiment using a range of different coloured paper, such as red, yellow, green, blue, pink and purple.

Big questions:
- How can we keep our houses cooler in summer and warmer in winter? How does this help our environment?
- How does insulation work?
- How can we keep our cities cooler in summer?