



Sun Power

Materials

- Two soda bottles
- White paint
- Black paint
- Paint brush
- Two balloons

Instructions 1 Take the two bottles and paint one white and the other black.

2 Put a balloon over the top of each bottle and put them in direct sunlight. What do you think will happen to the balloons in the sun? Do you think one bottle will get warmer than the other? Why or why not? If you think one will get warmer, which one do you think it will be?

3 After a while check on the balloons. What happened? Why do you think that happened? Were your predictions correct? Is there a difference between the two balloons? Why do you think one got bigger than the other? Is one bottle warmer than the other? Why? How could we use the fact that the white gets warmer slower and the black one gets warmer faster to help us in everyday life?

The Science Behind It

The black color absorbs sunlight and the heat from the sun causing it to warm up the air in the bottle faster. The heat causes the air to expand and fill up the balloon. The white color reflects the sunlight and the heat so the white bottle traps less heat than the black bottle. The sun constantly gives us energy in the form of heat and sometimes we try to collect that energy like we did in this experiment. One way that we collect this energy is solar panels. The MOST now uses solar panels on its roof to help power the museum and reduce the amount of fossil fuels we use.

