



## Heat: Transfer of Thermal Energy Activity for Kids

### Heat Resistant Balloon DIY

 Duration: **10–15 min**

 Difficulty: **Easy**

 Cost: **\$0 to \$5**

Learn how to heat a balloon without popping it!

### Material List

- 2** Latex Balloons
- 1** Candle
- 1** Glass of Water

**Adult Supervision**

*Avoid activity if you have latex allergies*

### Instructions

- 1** Blow up a balloon and with adult supervision, place it over the lit candle. It will pop.
- 2** Into the second balloon, pour about 1/4 cup of water into it, then blow it up.
- 3** Carefully, heat the part of the balloon with the water in it.

### How It Works

The first time you tried to place the balloon over the candle, it popped. The latex melted due to the transfer of thermal energy from the flame to the latex. When you put the water-filled balloon over the candle, it didn't pop. This is because water can absorb a lot of the thermal energy from the flame, with only small changes in temperature. Since the water absorbs the thermal energy, the latex doesn't melt. No melting, no popping!