

Hot Air Balloon Experiment

A few helpful hints: The bag we use has to be lightweight and one with a larger volume will work better. The opening has to be stable so it won't collapse. The heat source works best if it's constant (such as candles) rather than one that turns off (such as a hair dryer), as the air will cool down quickly. It will work best if the surrounding air is colder – so if you can do this in winter you may want to take it outside (as long as it's very calm.).

You can find many detailed instructions on how to build a hot air balloon online. We provide a brief summary here to help guide you but you may want to check instructions such as these for more details: <http://www.hometrainingtools.com/a/make-a-hot-air-balloon>

Instructions

1. Make a cross out of straws that matches the size of your bag's opening (so you can stretch the bag around the four corners of your cross)
2. Make a small tray for about 4 birthday candles out of aluminum foil. Attach this to the centre of the cross.
3. Cut two or three birthday candles in half and attach each half to the aluminum tray with hot wax.
4. Check your balloon for holes by blowing it up with a hair dryer (careful that you don't make it too hot). Fix all holes with tape.
5. Attach the cross to the edge of the bag's opening with tape. The opening should make a fairly tight square around the cross.
6. Attach a piece of light string (such as fishing line) or thread to the balloon so you can reel it in should it get away from you.