



# HOW TO MAKE A HOT AIR BALLOON



**Parental Supervision Required**

To make a Hot Air Balloon you need a balloon, PVA glue, newspaper, bases of 2 plastic bottles (one for the basket and one to mix the glue in), a bowl or tin to hold the balloon during construction, 8 paper clips,

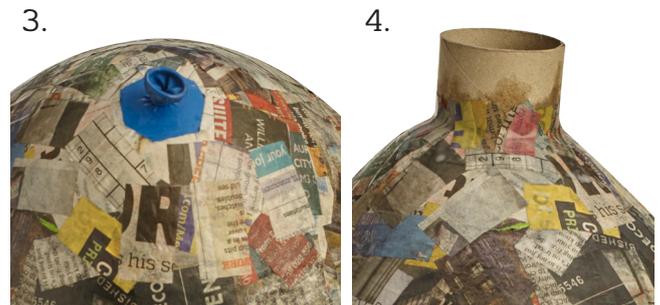
cardboard toilet roll tube, pencil, ruler, needle, thread, scissors, paint, paintbrush, string or cord, and some scrap material to cover the basket and make the sandbags.

1. Blow up balloon and place in bowl or tin. Cut newspaper into 2-inch x 0.5-inch strips. After soaking these in water, use them to cover a quarter of the balloon's surface.  
2. Before this area dries, mix the PVA glue with 50% water and mix until it is the consistency of milk. Then, use your index finger to completely cover the wet newspaper in glue, making sure not to let it come into direct contact with the balloon. Now add a layer of dry newspaper over the glued area and, using your index finger dipped in the glue, rub flat this layer of newspaper. Repeat until you have 5 or 6 layers of glue and newspaper.  
Start again with watered

newspaper, covering the next area of your balloon. Once each area is complete you will need to leave the balloon to dry before turning it over and covering the remaining areas in the same way. Do this until it is completely covered, leaving only a small opening at the base as shown in third image. Leave to dry.  
3. You now need to add another 20 layers of newspaper strips and glue over the whole area of the balloon until it has no 'give' in the structure when you squeeze it. The top of the balloon really needs to be thick, as it will need the strength to support the balloon if you hang it from the ceiling.



**Note:** Cover your glue container with a plastic bag and hold it in place with an elastic band when not in use.



4. Over the opening, add a small section of the cardboard toilet roll tube and glue in place with newspaper.

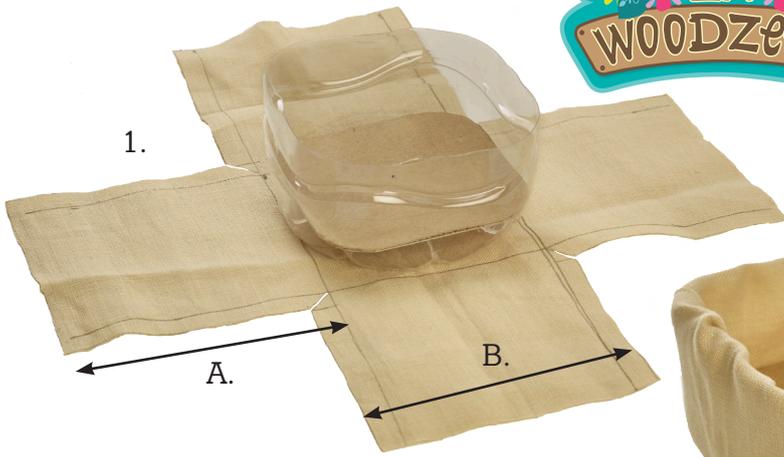


To add the strings to your Hot Air Balloon you need to burst and remove the balloon before making a small hole in the center of the top of your model. Hold the balloon when you burst it.

5. Then, with the needle and thread tied to your string, lower the needle through the hole and out through the base. Pull and feed the string through the top hole and out the bottom. Remove the thread from the string, tie a knot in the end of the string, and pull it back through the hole.  
6. Make a loop in the string. Using a pencil, draw a line around the widest part of your model as shown.

7. To mark where you need to make the 8 holes for the basket ropes you need to know the diameter of your model. The simplest way is to wrap a piece of string around the model, along the pencil line, and cut it to length. Now fold the string in half and mark the fold in the string. Fold in half again, marking both folds in the string. A third fold will give you the position of the last four holes. Tape the marked string on your model and mark, then make your small holes.

The model can now be painted and decorated.



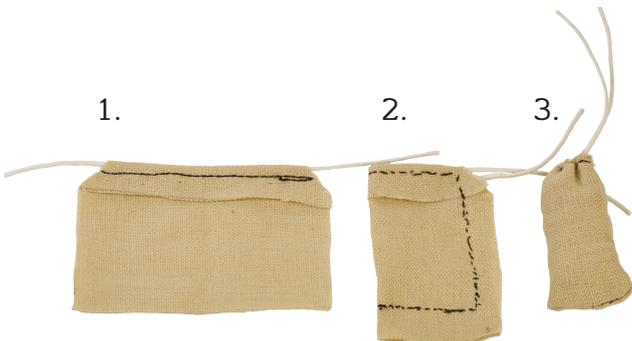
To make the basket you will need to cut 2 inches off the base of a large, squarish plastic water bottle.

1. Cut a cardboard base for the inside of your plastic container. On the material you are going to use to cover the basket, mark out a cross as shown. 'A' will be twice the height of your container, 'B' will be the width plus half an inch.

2. Cut the material to shape and stitch along the edge, making a bag as shown.

3. Turn bag inside out. Insert your plastic container without the base, and fold sides into container. Then insert and glue in your base board.

4. Stitch around the top of the basket. In each corner and center of your basket, stitch in place the paper clips as shown.



To make the sandbags you will need a 2-inch square of material.

1. Fold over one edge, cut off the corners, add your length of string, and stitch along edge as shown.
2. Fold in half and stitch along the two edges as shown.
3. Turn inside out and fill with the waste material you have left over.

Insert a length of string through each of the holes around the balloon, using the same method as with the top string. Make sure you do not cut the strings too short. Suspend the balloon above the basket and tie the strings to the paper clips. You can suspend your balloon from a cupboard door handle above a flat surface. You can also suspend it from a drawer handle with your basket on the floor (just open the drawer slightly).

