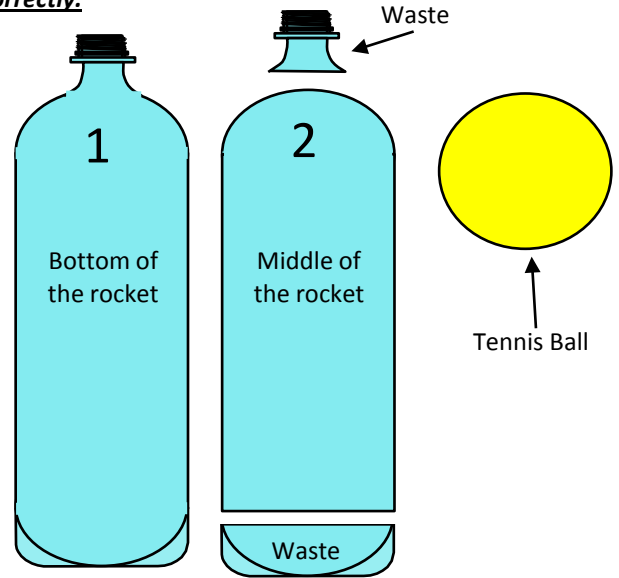


# Building a Rocket

*Before you build a rocket try the bottle on the launcher to test if it holds pressure and fits correctly.*

You Will Need	Tools
2 X 2ltr Bottles	1X Hot Glue Gun
1 X Glue/Double Sided Tape	1X Pair of Scissors
1 X Cardboard	1X Fine Marker Pen
1 X Roll of Sellotape	
Sheets of Paper	



- The 1st bottle is kept the same, just remove any bits of plastic from the top, which are the same colour as the screw cap.
- The 2nd bottle is cut in to three pieces, remove the top and the base of the bottle to help reduce weight of the rocket.
- The tennis ball needs to be cut in half and taped or glued on to of the 2nd bottle.

## Rocket Fins

The fins are made out of cardboard from a cereal packet. The fin is in two parts that are stuck or double sided sticky taped together. The two tabs are bent out along the dotted line after scoring with the back of a knife, the tabs are used to tape the fin to the rocket.

To make the fin water-proof use package tape on both sides, folding over the edges. The fins are then hot glue gunned in the corners of the tab and fin on each side (fig 5), this gives the fin more support.

Finally the fins are taped to the rocket using sellotape on each tab and then around the rocket to stop the tape peeling off. They should be arranged symmetrically around the rocket (every 120° if you have three fins or every 90° if you have four).

Use a sheet of paper to help mark the correct location for the fins. (fig 6). Wrap the paper around the rocket base and mark where the paper overlaps (Fig 6), then divide the paper (Fig 7) into three (or four if making four fins for your rocket). Put the paper back round the base of the rocket and mark where the fins are to go.

Take the paper off the rocket and put the marks up against a door frame (Fig 8) and draw a line down your rocket for the fin locations, you should get a straight line along the bottle (you don't want fins going in the wrong direction).

Put the fins where you have marked the base of the rocket, making sure you follow the lines you have drawn on the rocket body.

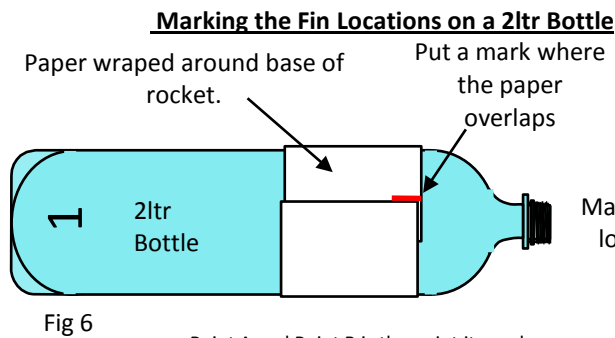
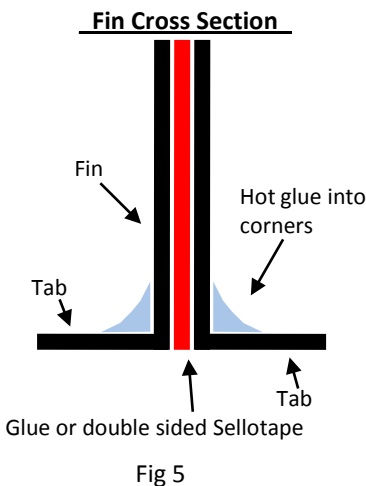


Fig 6

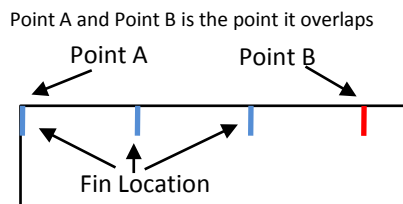


Fig 7

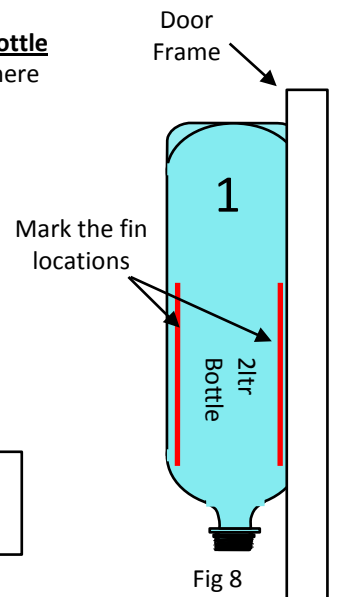
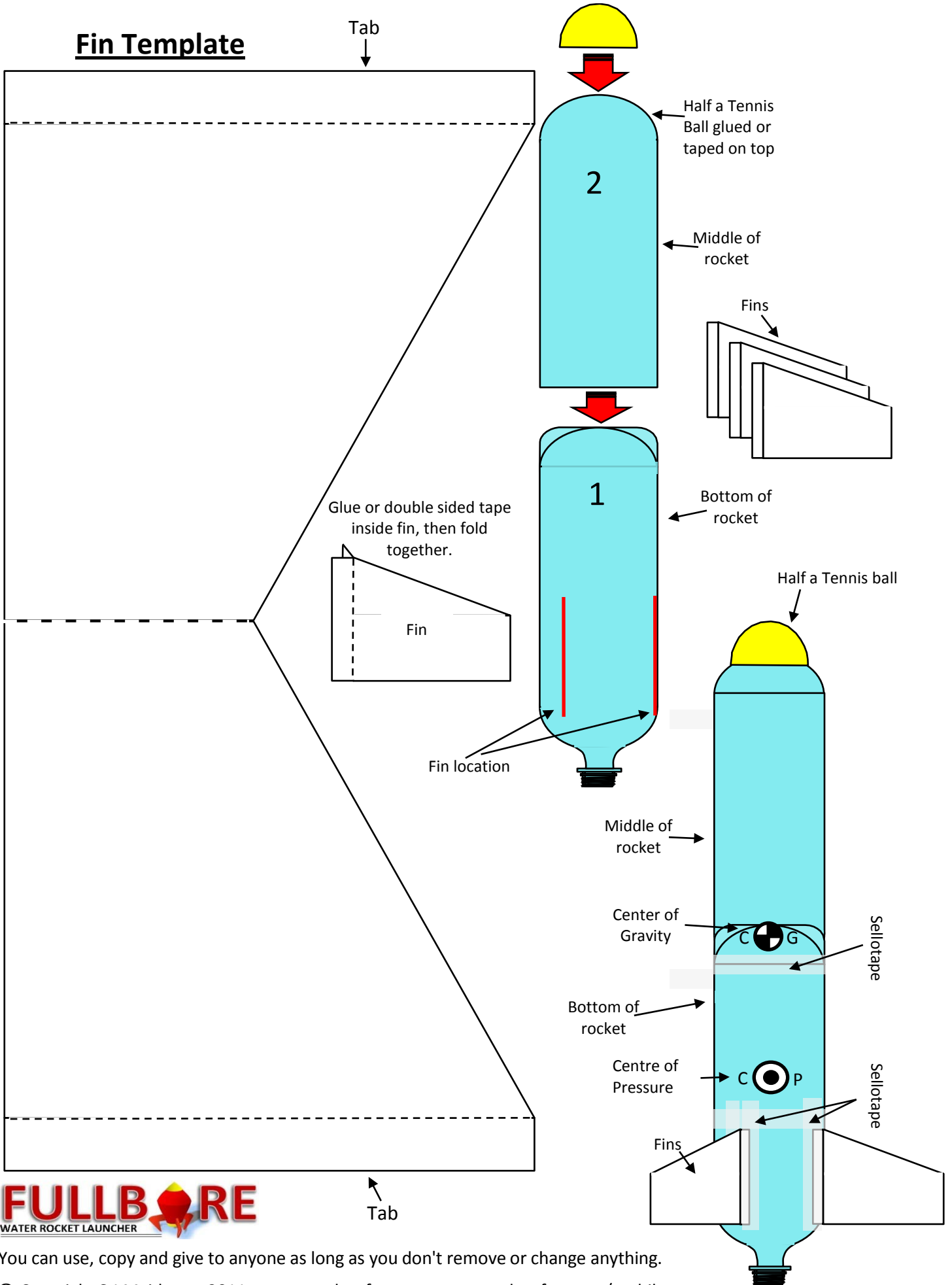


Fig 8

# Fin Template



You can use, copy and give to anyone as long as you don't remove or change anything.

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