



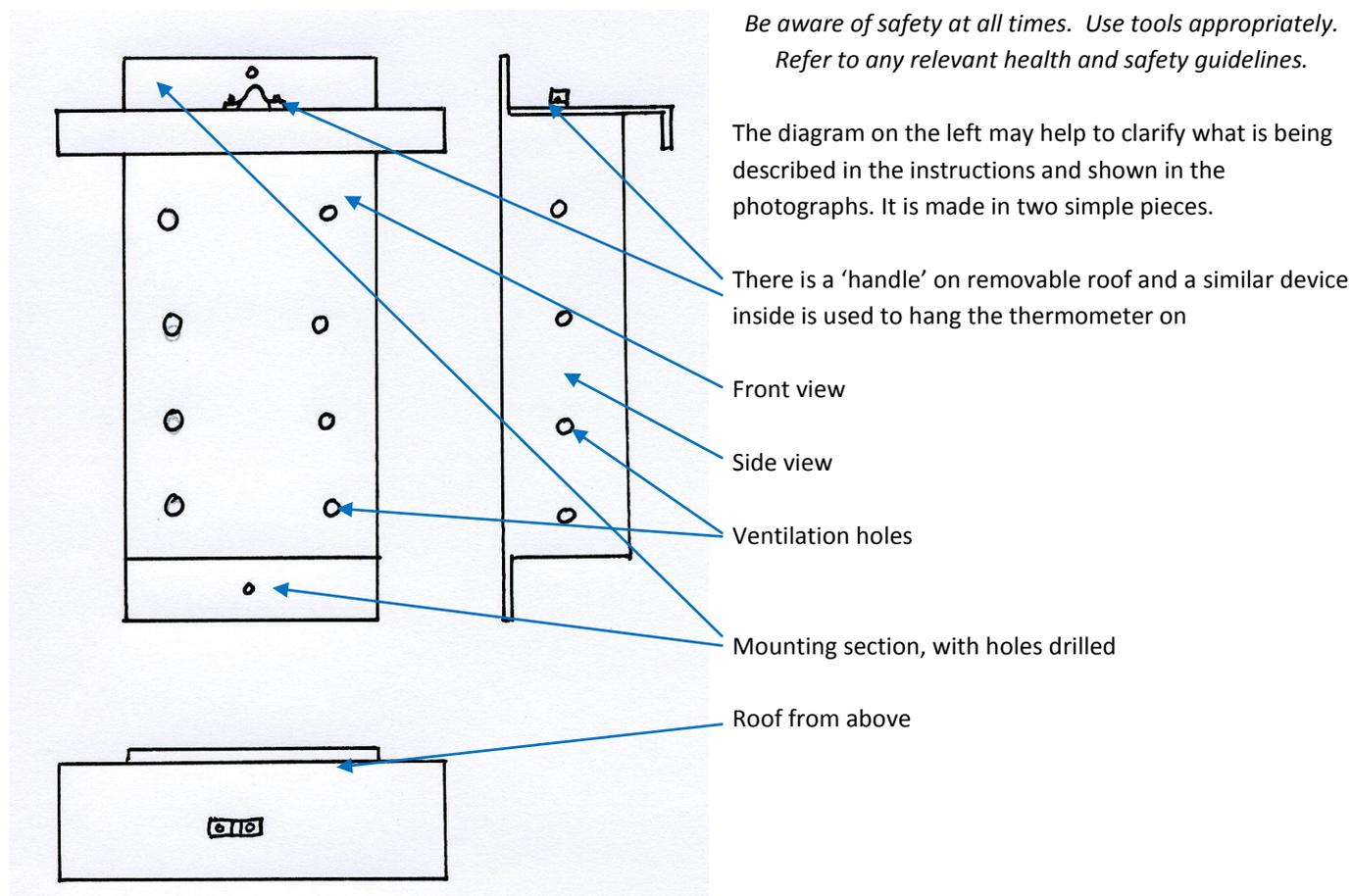
Making a Weather Station from plastic trunking

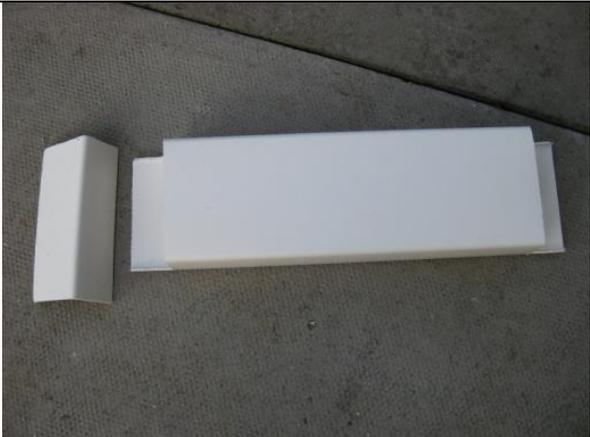
This weather station has been designed to be fairly cheap and easy to make. It also is low maintenance. However if finances permit, it is much better to have a real Stevenson Screen for your weather instruments.

Advantages:

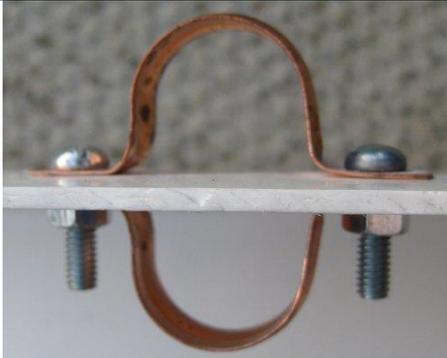
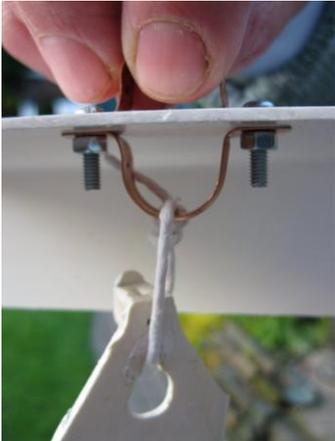
- materials are easy to obtain
- does not need painting
- easy to mark, cut and drill
- no joins to do
- will not rot
- is already white to reflect heat
- the air can circulate through the holes and the fact that there is no base
- looks smart
- easily mountable on a post, wall or fence

This weather station can be adapted for the size of the thermometer it is going to house. This example accommodated an average maximum and minimum thermometer. Check before you start that your thermometer will fit in the trunking. Then check the length you will need. Modify the instructions to suit.



1 – Gather the tools you will need	2 - Trunking
	
<p>This weather station only needs very basic tools. You need a couple of screws to put it up. You may also use a sanding block to remove rough bits.</p>	<p>This white trunking can be bought at DIY outlets. It is one metre long and 5cm x 11cm. Do not use any other colour than white as these would absorb the heat from the sun's rays.</p>
3 – Handle and hanging hook	4 – Mark the body
	
<p>These form the fittings for the lid. The top saddle clip is used as a handle; the lower one is used to hang the thermometer from. You need to use nuts and bolts which will easily pass through the saddle clips. Fairly short bolts are suitable.</p>	<p>Mark the length of the back. This includes two sections which will be used to screw the box to a post. This one is 40cm long (adjust for your thermometer if needed). Measure 4cm from each end and draw a line for the sides and front cuts.</p>
5 - Cut main part and mark the lid up	6 – The two finished sections
	
<p>Cut along the lines to create the body of the weather station. Mark a lid on the remaining trunking. A 15cm length will give a lid that overhangs the main body of the weather station. Use one whole side and 6cm of the top.</p>	<p>Here is the body and the lid of the weather station. The cuts have been sanded to remove any rough parts.</p>



<p>7 – Drill air circulation holes</p> 	<p>8 – Create the handle</p> 
<p>Measure and mark holes to allow the air to circulate. This example has two rows on the front and a row on each side. They are about 7mm across. You need to strike a balance between not letting the rain in, not creating wind chill, and allowing the air to circulate. Drill one smaller hole at each end on the longer sections for mounting the box.</p>	<p>Use the saddle clip to mark holes centrally on the lid. Thread the nuts downwards through a saddle clip, the lid then the other saddle clip. Fasten with the nuts.</p>
<p>9 – Hanging the thermometer</p> 	<p>10 – Mount on the post</p> 
<p>Use strong string or a small piece of chain to hang the thermometer from the lower saddle clip.</p>	<p>Use the holes at the top and the bottom to mount the body of the weather station onto a post. This post has a cap on top of it to stop it rotting. If possible mount the box so that the bulbs of the thermometers are 1.25m above the ground.</p>



11 – Face North	12 - Use your thermometer
	
<p>Make it face north so that it does not get direct sunlight. Remember that if you mount it on a wall, it must be a north facing one for the same reason.</p>	<p>When you want to read your thermometer, gently lift it out and rest it on the front of your weather station. Read the scales and then reset them. Slide the thermometer gently back into the trunking.</p>

An alternative to using trunking is to use a section of white downpipe. Check that the smaller size will still accommodate your thermometer. Unfortunately it has to be bought in longer, more expensive lengths.

To see a video of this weather station in use, visit the **Weather for Schools** website and look at the **More about Setting up your Weather Station** page.

(<http://www.weatherforschools.me.uk/html/moresettingup.html>)

A Home-made Weather Station

See the links section to find out how to make a variety of weather stations. The video on the right shows an easy-to-make weather box. It will just house one thermometer. This one is a Six's thermometer. Find out more about these on the [Six's Thermometers](#) page. These give good value as you get three readings; current, maximum and minimum temperatures.

