

INSTRUMENT CREATION STATIONS

Make your own FLUTE!

Taken from:

Mark Shepard, *Simple Flutes: A Guide to Flute Making and Playing*, Los Angeles: Shepard Publications, 2003. ISBN: 0-938497-18-9

See also: www.markshep.com/flute

Materials:

$\frac{3}{4}$ inch PCVC pipe – 16 inches long

$\frac{3}{4}$ inch PCVC end-cap

PVCP glue

Emory paper, steel wool

Electric drill

Drill bits: $\frac{7}{16}$ " ; $\frac{3}{8}$ " ; $\frac{11}{32}$ " ; and $\frac{5}{16}$ "

Clamps

pipe cutter

NB ~ Safety:

Because the dust from this plastic never decomposes, it is good to wear a mask when working with dust – so a face mask is a good idea. If you get the dust into your lungs it will never leave.

Ear-plugs are good too, when using the drill – to protect your hearing apparatus.

Eye protection is also a good idea, especially for people not already wearing glasses.

Notice where in the room the First Aid material is available should you need it.

Further thoughts:

If you want your flute to play a clean, tuned scale, **measurement needs to be as accurate as possible.**

Tuning of the flute is dependent on placement of the finger holes – as well as their size and (somewhat) their depth.

The timbre of your flute will be affected by the **sharpness of the edges** of the fingerholes and, more particularly, the mouth piece.

Take your time with measurements, carefully sand the edges of the holes, leaving **no small, jagged edges or pieces in the interior** of the flute.

Directions:

1. Measure pipe and cut precisely $15 \frac{9}{16}$ inches - use the pipe cutter for best results.
2. Mark finger holes at centres, measuring from the left (top) end. See diagram above using appropriate drill bits (wear a mask and eye protection) drill holes as shown. You will need to clamp the pipe to a table and drill only through one side of the pipe.
3. place end-cap over left end, measure mouth hole $5 \frac{1}{16}$ " from the end of the pipe not the end of the cap, glue cap into place using PVCP glue (a little bit only) - wear your mask, open a window for better ventilation. Drill mouth hole.
4. Clean out interior using a pencil or long chopstick - make the edges of the finger and mouth holes as smooth as you can, using a small piece of emory paper. you can clean your flute with some steel wool.
5. Please wear gloves when using steel wool to avoid nasty splinters in your fingers.
6. You may wish to decorate your flute - or not.
7. Learn to play your flute. Learn to love your flute. With care, you should be able to achieve two octave of sound!