



Drilling at Forest school – bit and brace or palm drills

There are two main types of drill that we use at Forest school, a palm drill and a bit and brace. These are both excellent bits of kit and will allow you make all manner of items of craft.

The palm drill is essentially a drill bit set in to a wooden handle and is used in much the same way as you might use a screw driver. The important thing to remember is that you need to turn it clockwise for it to actually start drilling!

There are two sizes that we generally use, 5mm being the standard size and we also sometimes use a 3mm one mainly in jewellery making. They are designed for drilling small diameter holes usually in to wood. Most palm drills are made just for use on wood and will become blunt if drilled in to other things such as the ground, stones or sea shells, however you can get masonry palm drills specifically for drilling into chalk, slate and sea shells.

If palm drills are drilled too deep into a piece of wood there is a possibility that the drill may become jammed, generally speaking the standard sized ones (5mm) shouldn't be used for drilling holes much deeper than about 2cm.

In our experience, palm drills can be used by children from Year 1 and upwards although some children may struggle in the beginning.

Safety

Although palm drills are a relatively safe piece of kit to use we have had very rare incidents of small cuts from the drilling end and for this reason it is best to demonstrate best practice and ensure the wood that is being drilled is on a solid wooden surface such as a log and not held in the hand or rested onto the leg or any other part of the body.

We have had a few occasions where students have drilled the palm drill into a big log and have snapped the drill bit by wrenching it over to one side, so it's worth keeping an eye out for that possibility as once they are broken there's no real way of fixing them.

Using a Bit and Brace

This is quite an old fashioned tool but is brilliant for using with younger children or participants who have reduced mobility as it is often best used in partnership with someone else. The parts of the brace has a chuck at one end and this is used for gripping the drill 'bit' so by turning the chuck clockwise or counter clockwise you can grip the drill bit in the jaws of the chuck or release it when it's not in use or if you're changing the bit , just above this is a 3 position gear mechanism which would normally be for use in tight spots as it allows the brace to be used on a ratchet (this is best kept in the middle for our purposes.

Above this there is a cranked shaft with a spindle handle and a spindle handle at the top so that the bit can be turned freely without causing wear and tear on the hands. Again this

needs to be turned clockwise for it to drill into wood. The main thing is to ensure the Brace is kept perpendicular by holding the top hand still.

When using this type of drill with someone I normally sit facing them working on to a log and I hold the work-piece and assist with them holding the top of the brace (to keep it from wobbling around) whilst they do the turning of the crank.

When not using the tool it's a good idea to remove the bit as a number of times we have had someone accidentally step on it whilst it's been laid on the floor.

There are a number of simple achievable projects that you can do using drills and wooden discs that you have sawn. These include making name discs, spinners, medals, necklaces, keyrings as well as spinning tops, spinners and woodland mobiles.

Once you have mastered making holes with either the palm drills or bit and brace you can then start using twigs as a type of dowel to attach two pieces of wood together and this can open up a whole other range of craft activities including wooden animals, spiders, snowmen, cars, snails, shades, angels and a hundred and one other creative ideas.