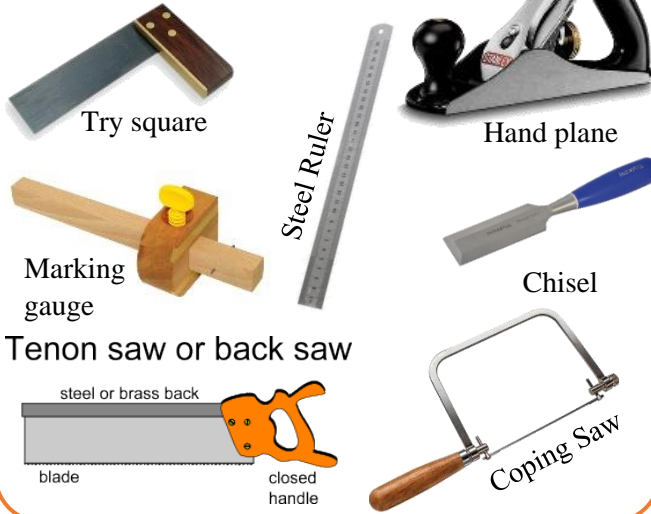


Practical Project

Knowledge Organizer – Year 7 DT

OUR HAND TOOLS:



Temporary Joining Technique:

We will use **wood screws** to secure the front pane to the bird feeder.

These will have a **Phillips head** shape like we can see in the image



Materials Used:

Pine: a natural softwood from the evergreen Scots Pine tree

Plywood: An engineered board, manufactured from lots of thin layers (plies) of wood glued together as a large sheet

Acrylic: A thermoplastic material; comes in many colours & easily cut or melted.

The Bird Feeder Project:

Making the Roof:

To cut & shape plastic like the acrylic top, we will need to use different tools.

- The **hacksaw** has smaller teeth than a tenon saw, so it's great for cutting hard, brittle plastics.
- To wear down the plastic, we can use **files**. This will be useful to add the curves & clean up the shape of the lid.



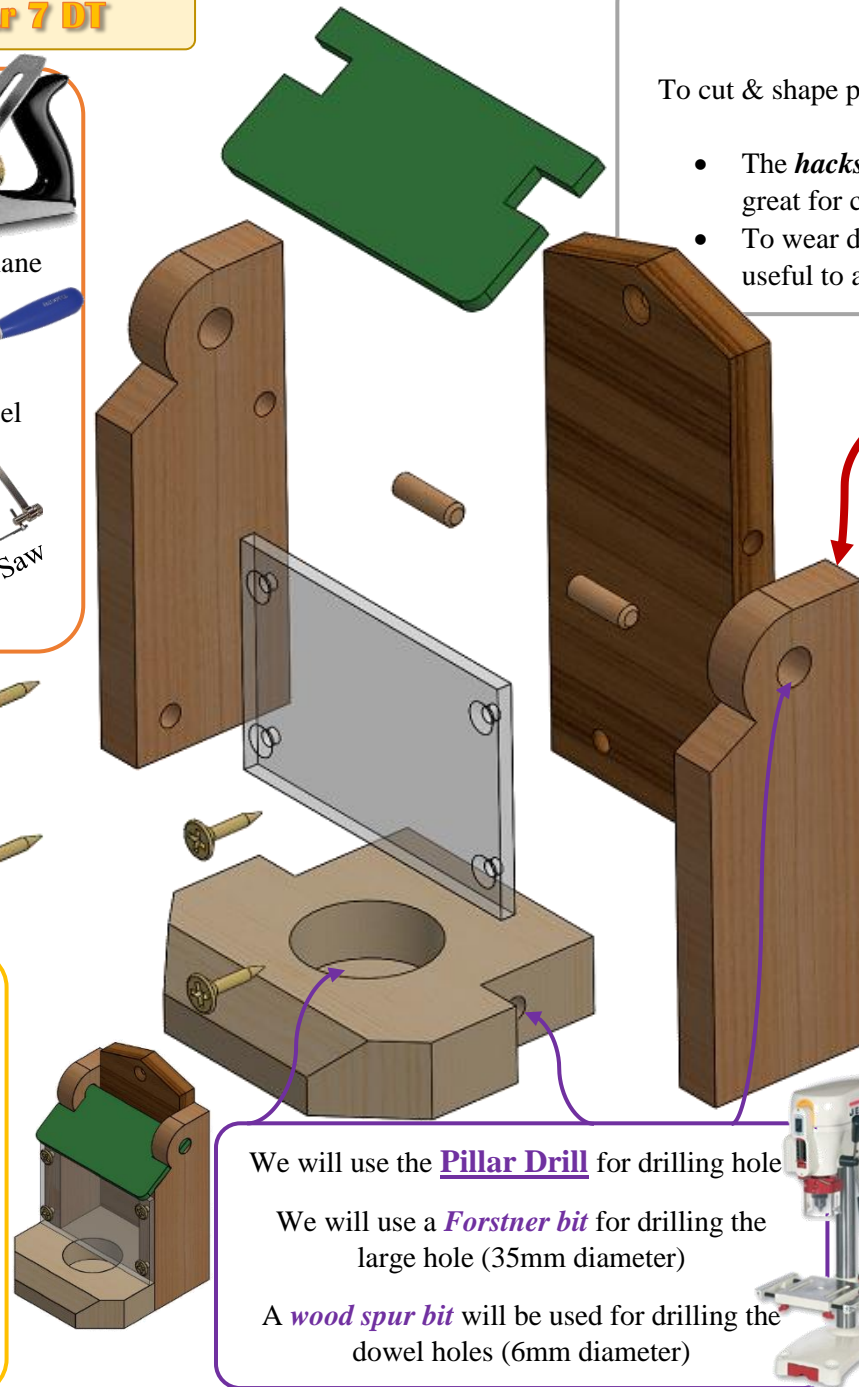
Making the Sides:

- We can make marking out the sides a lot quicker, by using a **stencil/template** to accurately get our markings – this would be a complicated & slow process otherwise.
- We will need to accurately drill the holes for the roof to hinge in – **an 11mm hole**. We may use an **awl** to create a small hole where we need to drill first.
- To cut the curves we will use the **coping saw** – we will saw outside the line to get the rough shape, then file or sand away the rest of our waste to get an accurate

The Dowel Joint:

A Dowel is a small wooden peg, made to help join 2 project parts together.

A dowel joint is made by drilling holes with the same diameter as the dowels in each of the parts to be joined, then bonding them with glue to make a really strong joint.



We will use the **Pillar Drill** for drilling hole

We will use a **Forstner bit** for drilling the large hole (35mm diameter)

A **wood spur bit** will be used for drilling the dowel holes (6mm diameter)

