

WEEK 24 WORKSHEET

Subject: Applied Technology

Year/Level: 13

Strand: 6	AT 13.6: Applied Engineering
Sub Strand	AT 13.6.1 Carpentry & Joinery
Content Learning Outcome	AT 13.6.1.1 Develop practical skills in carpentry & joinery works relative to building Windows, doors and fittings & fitments.

LESSON NOTES

Chapter 5: Applied Engineering

Carpentry and Joinery

CONSTRUCTION TOOLS

Standard saw – used for cutting timbers



Coping saw - The coping saw is a hand tool that allows you to cut intricate shapes and irregular lines. Frequently used for cutting mouldings and shaped joints.



Hack saw - It is particularly useful for carpenters who need to remove existing bolts and frames.



Tenon saw - A must for cutting tenon joints.



Rip saw - Designed specifically for cutting across the grain, a rip saw's coarse teeth won't give you a neat finish but it will cut very quickly making it very useful for fast timber frame work.



Keyhole saw - A keyhole saw's long narrow blade is used to cut small, often awkward shapes and holes in a variety of building materials.



Spirit levels (large, medium and small) - These tools give you accurate measurements of the flatness of a surface.



Screwdriver set – used for tightening and loosening screws.



Tape measure – it is used for measuring.



Claw hammer - It has a heavy blunt end for striking and a rounded claw end for prying and removing nails.



Wood mallet - A wood mallet is typically used by carpenters to drive wooden work pieces together or to drive dowels.



Quick clamps - Quick grip clamps are simple to use and provide that vital extra pair of hands when you need them most.



Table saw - The table saw is the real workhorse of any carpenter's workshop, so invest in a good one. You'll use it to rip, groove, join, shape, square, mitre, and slice - a quality one that suits your needs is essential.



Pinch bar - A pinch bar is a must-have tool for any carpenter. It can pry open pretty much anything if the right leverage is applied, and if nothing else, it will save you damaging your screwdrivers.



Pencil - The humble pencil has various uses and applications, from marking measurements on your workpiece to filling in the crossword at lunchtime.



G clamps - Clamps are extremely useful tools and are used in many carpentry tasks. They can be used to hold, secure and grip anything that will fit between their jaws and will allow you to keep both hands free while working.



Door lift - This simple looking tool makes fitting doors a breeze. The tapered front end of the door lift slips neatly under boards and doors and holds them securely in place.



Bradawl - A bradawl is a simple tool incorporating a sharp, pointed metal shaft that is used to mark an indentation in wood for a nail or screw to go in.



Nail puller - The nail puller does exactly what it says it does. Designed to remove difficult nails from timber.



Retractable trimming knife - A carpenter will use a retractable trimming knife when scribing wood, cleaning out mortise joints, or just sharpening their pencil.



Marking gauge - The marking gauge is used to mark parallel lines on a work piece prior to cutting.



Sliding bevel - If you need to set an angle and mark off a lot of timbers then there is no better tool than this simple sliding bevel.



Metal rule - The simple metal metre rule is used to measure distances between two points. The straight edge can be used to rule lines.



Long tape - The long tape is essentially a tape measure with extra reach. They are very handy to have around, especially when working on large projects like setting out timber framed buildings.



Nail punch set - All carpenters should have a set of nail punches. In fact, they should have a range of different sizes. They are used to drive nails flush with or just below the surface of a workpiece.



Bench vice - Great for holding workpieces securely so that you are free to work with both hands.



Block plane - It can flatten a piece of wood or add a curve to it. It can square your work, chamfer and soften those sharp edges.



Ball pein hammer - The ball pein hammer is traditionally a metal-working hammer, but is often used by carpenters to strike punches, chisels and nails.



Carpenter's square - This handy little tool is used to mark out right-angles and square lines.



Combination square - The combination square is a versatile tool used for measuring and scribing right angles and parallel lines, it also serves for making mitres and as a depth gauge, height gauge and level.



Set of wood chisels - Chisels are used to clean out joints and neaten up saw cuts.

THE END



STUDENT ACTIVITY

1. List down the uses of following handtools:

a. **Coping saw**

b. **Tape measure**

c. **Pinch bar**

d. **Door lift**

e. **Retractable trimming knife**
