

WOODWORK SCHOOL POLICY AND SAFETY PROCEDURES

Never use a hand tool, a power tool or a power machine without your teacher's permission and always only under teacher's supervision.

What should you do before using woodworking machines?

Woodworking tools can be dangerous if not used properly.

- Only use woodworking machines that you have been trained to use properly and safely.
- Make sure you understand instructions before attempting to use any tool or machine. Ask questions if you have any doubts about doing the work safely.

What safety procedures should you follow when using woodworking machines?

- Always wear safety glasses or goggles, or a face shield (with safety glasses or goggles).
- Wear hearing protection that is suitable for the level and frequency of the noise you are exposed to in the woodworking area. If you have trouble hearing someone speak from three feet away, the noise level from the machine is too high. Damage to hearing may occur.
- Use gloves to protect hands from splinters when handling wood but do not wear them near rotating blades and other machinery parts where the gloves can catch.
- Wear protective footwear when required.
- Make sure the guard is in position, is in good working condition, and guards the machine adequately before operating any equipment or machine. Check and adjust all other safety devices.
- Make sure the equipment is properly grounded before use.
- Check that keys and adjusting wrenches are removed from the machine before turning on the power.
- Inspect stock for nails or other materials before cutting, planing, routing or carrying out similar activities.

- Make sure that all machines have start and stop buttons within easy and convenient reach of an operator. Start buttons should be protected so that accidental contact will not start the machine. A collar around the button 3 to 6 mm (1/8 to 1/4 inch) above the button is recommended.
- Ensure that all cutting tools and blades are clean, sharp, and in good working order so that they will cut freely, not forced.
- Turn the power off and unplug the power cord (or lock out the power source) before inspecting, changing, cleaning, adjusting or repairing a blade or a machine. Also turn the power off when discussing the work.
- Use a "push stick" to push material into the cutting area. Jigs are also useful in keeping hands safe during cutting procedures. Keep hands out of the line of the cutting blade.
- Clamp down and secure all work pieces when drilling or milling.
- Use good lighting so that the work piece, cutting blades, and machine controls can be seen clearly. Position or shade lighting sources so they do not shine in the operator's eyes or cause any glare and reflections.
- Ensure that the floor space around the equipment is sufficient to enable you to machine the size of work piece being processed safely without bumping into other workers or equipment.
- Use extension tables or roller supports for large workpieces. Supports should be placed on both sides (infeed and outfeed).
- Woodworking machines should be fitted with efficient and well-maintained local exhaust ventilation systems to remove sawdust or chips that are produced.
- Electric power cords should be above head level or in the floor in such a way that they are not tripping hazards.
- Keep work area free of clutter, clean, well swept, and well lit. Spills should be cleaned up immediately. Floor areas should be level and non-slip. Good housekeeping practices and workplace design will reduce the number of injuries and accidents from slips, trips, and falls.

What should you avoid when working with woodworking machines?

- Do not wear loose clothing, work gloves, neckties, rings, bracelets or other jewelry that can become entangled with moving parts.
- Avoid awkward operations and hand positions where a sudden slip could cause your hand to move into the cutting tool or blade.
- Do not remove sawdust or cuttings from the cutting head by hand while a machine is running. Use a stick or brush when the machine has stopped moving.
- Do not use compressed air to remove sawdust, turnings, etc. from machines or clothing.
- Do not leave machines running unattended (unless they are designed and intended to be operated while unattended). Do not leave a machine until the power off is turned off and the machine comes to a complete stop.
- Do not try to free a stalled blade before turning the power off.
- Do not distract or startle an operator while he or she is using woodworking equipment.
- Horse play should be prohibited. It can lead to injuries.

Guidelines for using Power Machines:

Band saw

- Adjust the upper blade guide so it is $\frac{1}{4}$ " above the wood. If the guide is too high the blade will not be supported properly.
- Be sure the blade has been properly installed, and the tension is adjusted. Also, the blade teeth should be pointing down.
- Check the owner's manual for the manufacturer and saw size. Allow the saw to reach maximum speed before engaging wood. Keep hands and fingers at least 2" away from the blade. Never place them in line with the blade.
- When cutting small pieces of stock, use push sticks so all body parts are out of harm's way. Place the wood flat on the table and gently force wood into the blade. Avoid backing out of long irregular curves. This could pull the blade off the wheels. If it is necessary, first turn off the saw before attempting to do so.
- Do not cut a radius so small that the blade is twisted. This could break the blade and cause serious injury.
- Make relief cuts so that wood is removed and allows for the blade to cut the radius and without twisting the blade.
- Never allow anyone to stand on the right side of the band saw. If the blade broke, this is the most likely direction it would go. If the blade breaks, immediately turn off the power and step away from the saw.
- If a clicking sound is heard while the wood is being cut, immediately turn off the power. This is usually a signal that the blade has a crack.
- Never attempt to cut cylindrical stock by holding it with your hands. Secure it first in a hand screw clamp and then attempt the cut.
- When finished, turn off the machine and apply the brake. Do not leave the band saw until it has come to a full stop.

Pillar drill

- Use only drills with straight shanks. Drills with tapered shanks or tangs, such as hand auger bits that are designed for a hand boring brace should not be used.
- Install drills in the chuck to their full depth. Use a chuck key to secure the drill tight. Do not leave the key in the chuck.
- Adjust the table to the proper height and angle. Also make sure the hole in the table is in line with the drill bit.
- Place a wooden pad on top of the table. This will prevent drilling holes in the metal table, and will also prevent splintering the bottom of your stock when the bit drills through.
- Adjust the speed of the drill press. For small bits or soft woods, higher speeds can be used. When drilling hard woods, or using large diameter bits, a slower speed should be used.
- Always clamp small pieces of wood onto the table. If large bits are used it is also advisable to clamp the stock.
- If a drill bit catches in the wood, turn off the drill press and wait until it comes to a complete stop, before attempting to dislodge it.
- Do not force the bit into the wood stock. Always apply a slow, steady pressure. If a deep hole is required, withdraw the bit frequently to cool the bit and clear the shavings.

- When operating a drill press always keep your fingers at a safe distance from the drill bit.
- Use a brush to remove shavings from the table.
- Never leave the drill press until it has come to a full stop

Mortise machine

- Wear safety glasses.
- Make all adjustments with the power off.
- Adjust the auger bit so that it extends 1/16" to 1/8" beyond the end of the chisel.
- If you are attempting to chisel completely through the stock, place a wood pad beneath the stock so the chisel will not damage the table.
- Always clamp the stock securely to the table. Never attempt to hold the stock down with your hand.
- Manually turn the bit spindle around 360 degrees prior to turning on the power.
- Be sure to tighten the bit and chisel firmly. Always remove the chuck key before turning on the power.
- Keep your hands at least 3" away from the chisel while the power is on.
- Keep the work area clean and free of wood chips.
- Never force the mortising chisel and bit into the stock.
- If performing deep cuts, back out periodically to clean out the hole, and allow the chisel and bit to cool off.

Table Saw

- Adjust the saw blade between 1/8"-1/4" above the thickness of the wood to be cut.
- Avoid wearing gloves, loose fitting clothing, shirts with long sleeves, ties, jewellery, etc. while operating a table saw.
- Use the fence for all ripping operations. Use the mitre gauge for all cross cutting operations. Never use the fence and mitre gauge in combination. Doing this could cause the wood to bind and kick back, causing serious injury.
- Never cut wood stock free hand. Use the guard and splitter whenever possible. Only a few operations may require the guard to be removed.
- Always use a push stick for ripping operations, especially when ripping narrow strips. Always push the cut stock beyond the blade before removing the push stick. Always stand to one side. Never stand directly behind the wood stock being cut if possible.
- All stock should be surfaced and jointed on one edge before cutting to size on the table saw.
- Never allow wood scraps to accumulate on the saw table. Turn off saw and wait until the blade has come to a complete stop before removing them. It is best to remove the scraps with a push stick or a brush.
- Make all adjustments to the saw, mitre gauge, or fence when the saw is off. Always disconnect the power before changing the blade.
- Be sure the wood stock is not touching the blade when the saw is turned on. Be sure the saw is turning at full speed before attempting to cut.
- Never, ever reach over the saw to pick up a piece of wood while the saw is still on.

- When ripping long pieces of lumber, ask someone to assist you. The assistant's job is to hold the cut ends of the lumber level with the saw. They should never attempt to pull the lumber through. The person operating the saw should always control the speed of the cut. A roller support can be used when no one is available to help.
- Always use a sharp blade. Dull blades will cause the blade to heat up and leave burn marks on the wood.
- When finished using the saw turn it off, lower the blade below the table surface, and adjust the blade angle to "0" degrees. Zero degrees means that the saw blade is perpendicular to the saw table.

Wood Lathe

- Always wear a face shield to protect your eyes when operating a wood lathe.
- Never wear a tie or loose clothing.
- The spur should be mounted in the headstock spindle and the cup centre or (dead centre) should be mounted in the tailstock spindle. Always tighten the tailstock clamp. Also, always remove the spur and cup centres from the lathe when they are not being used.
- A faceplate can be threaded onto the headstock spindle on the inside or the outside of the lathe. The outside placement of the faceplate would normally be used for large diameter projects. This setup would require a portable stand to hold the tool rest. Be sure the faceplate is screwed on tight.
- Be sure the stock is centred, and that the spur and cup centres are properly imbedded in the wood. Also be sure to apply oil at the dead centre. This should be applied periodically as the work progresses.
- Wood with knots, splits, or other defects should never be turned. All glued and clamped stock should be allowed to dry for at least 24 hours.
- Be sure all lathe adjustments are made prior to turning on the power.
- The tool rest should be adjusted 1/8" from the stock, and about 1/8" above the centre. As the work progresses, additional adjustments will have to be made to maintain these distances. Rotate the stock by hand to make sure it doesn't hit the tool rest, before turning on the power.
- Always run all stock at the slowest speed until it is rounded. For stock over 6" use the slower speeds. For stock between 3" to 6" use the medium speeds. And last, for stock under 3" use the faster speeds.
- Keep the lathe tools sharp.
- Firmly hold the tool in position with both hands and apply a steady pressure. Never force the tool into the stock.
- Remove the tool rest for all sanding and finish operations. Failure to do so may result in injuring your fingers between the stock and the tool rest.
- Always turn off the lathe when it is not in use.

Scroll Saw

- Be sure the power is off before making any adjustment to the scroll saw.
- Use the correct blade width for the type and thickness of the stock.

- The blade should be installed into the upper and lower chucks, with the teeth pointing down.
- Apply tension on the blade according to the manufacture's recommendations.
- Adjust the guides so they support the blade properly. The hold down should be adjusted so that it just lightly touches the top of the stock.
- Operate the saw by hand to make sure that the blade works properly before turning on the power.
- Keep your fingers at least 3" from the blade. Also never place them in line with the blade.
- Be sure to hold the wood stock firmly against the table top.
- Never start the saw with the stock in contact with the blade.
- Apply a slow, even pressure when cutting. Never force the stock into the blade.
- When cutting sharp curves, a slower pace is recommended to prevent the blade from twisting or breaking. If possible make relief cuts before cutting sharp curves.
- If it is necessary to back out of a cut, always turn off the power first.
- Use a brush to keep the table top clean of wood blocks and saw dust.

Hand tools safety

Some general rules which should be followed when using hand tools:

- Treat all tools with respect
- Use tools as demonstrated by the teacher
- Sharpen, clean or replace blades before they become damaged or dull. A sharp tool cuts smoothly, accurately and safely. A blunt tool will slip causing injury.
- When using sharp-edged tools such as chisels, push the blade away from you, keeping both hands behind the edge so that if you slip you won't cut yourself.
- Materials must be held firmly (vice, clamp, holdfast etc.) when cutting, shaping and drilling.
- To avoid causing an injury to another person, carry tools with sharp blades pointed towards the ground.
- The distribution and collection of hand tools should be completed in a safe, orderly, quiet and direct manner.



Safety rules for portable electric tools and machines



Before you start

- Never use a power tool or machine without your teacher's permission and under their supervision.
- Use only if you have been properly trained in its use.
- Always adhere to the manufacturer's safety guidelines.
- Keep work area clean and free from any mess: cluttered areas invite accidents.
- Only one person per power tool/machine.
- Use cordless power tools when possible.
- Ensure the cables are in good condition/not damaged (before plugging in).
- Check the plug is in good condition and fitted with the correct fuse.
- Check that the chuck keys etc. are removed from the tool before switching on.
- Do not use portable power tools in damp or wet locations or expose them to rain.
- Never carry a power tool by its cable.
- Check work for nails, screws and knots.
- Double check everything before starting.



Whilst machine/power tool is in use

- Hold with a firm grip.
- Hold the work piece securely in the vice, cramps or holdfast.
- Never walk away from a portable power tool/machine that is running. Wait until it comes to a complete stop. A serious injury could occur if the tool is flipped or contacted accidentally.
- Keep handles and grips dry.
- Do not overreach, keep proper footing and balance at all times.
- Do not tamper with or remove safety guards.
- Switch off and unplug when changing bits, blades, belts or abrasive paper.



After use

- Unplug when not in use.
- Lock portable power tools away when finished.
- Tidy up after use

Specific details of equipment:

3 x Lathes	Make: Record Power	Model: DML 36SH MK2
3 x Lathes	Make: Record Power	Model: DML 24X
1 x Band Saw	Make: Record Power	Model: BS 500
1 x Pillar Drill	Make: Scheppach	Model: RABT 16X
1 x Scroll Saw	Make:	Model:
1 x Grinder	Make: Scheppach	Model: R{ BG8
1 x Table Saw	Make: Scheppach	Model: TS 4010 CI
1 x Mortise Machine	Make: Sedgwick	