

MILTON ACADEMY

SAFETY PLAN

Shops

June 29, 2010

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NOTE: This manual covers standard wood shop operations only. Milton Academy's use of "shop spaces" includes other materials and tool use in addition. Welding, the occasional use of a chain saw outdoors, cutting of plastic, metal, and stone and more.

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OVERVIEW

An important part of your experience in a shop will be learning to follow practices and procedures that will prevent injuries to **YOURSELF** and **OTHERS**.

Develop a good attitude toward safety. This means that you have a strong feeling toward the importance of safety and are willing to give time and attention to learning the safest way to perform your work. It means that you will be certain to work carefully and follow the rules – even when no one is watching you.

Carefully study the safety rules which follow. Your teacher/supervisor may also recommend some additional rules. If you follow the rules and directions carefully, many of them will soon become safety habits that you will perform almost automatically.

Please note that experience in a wood shop does not equal good safety awareness. Most accidents occur not to beginners but from experienced workers that feel more comfortable in the shop and therefore become more casual in their approach to safety guidelines.

NEVER be afraid to ask a teacher/supervisor for help.

NEVER use a new machine without first asking for assistance from a teacher/supervisor.

GENERAL SAFETY RULES

Work procedures and shop practices are effective methods of performing given operations when using special tools and equipment. Carefully follow all safety warnings and cautions. Note that these warnings are not exhaustive. Proceed with care and under proper supervision to minimize the risk of personal injury or injury to others.

Most power tool accidents can be avoided. Roughly 80% of accidents are caused by workers without the right safety attitude. These workers do not take safety seriously. Instead of being safe, they put everyone in danger.

BENCH ORGANIZATION

Keep your project materials carefully organized on your bench with tools located near the center. Do not pile tools on top of each other. Never allow edged or pointed tools to extend out over the edge of the bench. Close your vise when it is not in use and see that the handle is turned down. Keep drawers and cabinet doors closed.

CARRYING TOOLS

Keep sharp-edged and pointed tools turned down. Do not swing or raise your arms over your head while carrying tools. Carry only a few tools at one time, unless they are in a special holder. Do not carry sharp tools in the pocket of your clothes.

CLAMPING STOCK

Whenever possible, secure the work in a vise, clamp, or special holder. This is especially important when using chisels, gouges, or portable electric tools.

CLEANLINESS

Keep your hands clean and free of oil or grease. You will do better and safer work, and the tools and your project will stay in good condition. Keep the machine clean. Remove all tools, lumber, and unnecessary materials. Objects left on the machine can vibrate into revolving cutters. They can then be thrown from the machine with great force. Never clean a machine while it is running.

CONFIDENCE

As you learn to operate a machine, you will gain confidence. Do not become too confident. Overconfidence leads to carelessness, and carelessness causes accidents. This does not mean you should be afraid of machinery; however a safe attitude is one of respect for what machines can do.

CONSIDERATION OF OTHERS

Be thoughtful and helpful toward other students in the class. Be sure that the work you are doing does not endanger someone else. Caution other students if they are violating a safety rule.

ELECTRICITY

- Before you plug in a machine, make sure the switch is in the “off” position. You do not want the machine to start unexpectedly.
- If you use an extension cord, use the correct wire size. This is determined by the length of cord and size of motor. Using a wire size that is too small will cause the tool to overheat. If you are unsure about this, check with your teacher/supervisor.
- Keep all power cords away from blades and cutters while you work. Make sure the power tool is grounded. One with a double-insulated case need not be grounded. If you are unsure about this, check with your instructor.
- If anything unusual happens, turn off the machine immediately. If the machine does not sound right, turn it off immediately. As soon as it stops completely, check with your teacher/supervisor. Defective tools must be logged and locked out to disable their operation.

EYE AND EAR PROTECTION

Safety glasses or a face shield must be worn when using power tools in the shop area. Be sure you have enough good light to see what you are doing without straining your eyes. Always keep your eyes on the cutting action. Concentrate on what you are doing at all times. Depending on the tool or machine, ear protectors, eye protectors (goggles or shield), and appropriate dust or particle masks must be worn. This applies also to adjacent workers with noise and dust especially.

FIRE PROTECTION

- Re-familiarize yourself with the location of all fire alarms and fire extinguishers.
- Many finishing materials, thinners, etc. are highly flammable. Others are toxic. Because of this, it is important that only approved materials be used in designated areas.
- Make sure you are in a project space that allows such materials to be used.
- Close cans of finishing materials and thinners immediately after use.
- Use flammable liquids in very small quantities. Be sure the container is labeled with contents and MSDS product descriptions are available.
- Consult workers near you to determine whether any potential crossover hazards might be present.
- Dispose of oily rags and other combustible materials immediately, or store them in an approved self closing container.

FLOOR SAFETY

The floor should be clear of scrap blocks and excessive litter. Department chair should arrange with the facilities department professional cleaning of sawdust when necessary. Proper precautions should be taken so that there is no waxing of floors. Keep projects, sawhorses, and other equipment and materials you are using out of traffic lanes. Immediately wipe up any liquids spilled on the floor.

HAIR & CLOTHING

Dress properly for your work. Remove coats and jackets, and roll up loose sleeves. It is advisable to wear a shop apron that is snugly tied. Long hair should be tied back away from face and not allowed to “fall” into your work.

INJURIES

All injuries must be reported, regardless of severity to your teacher/supervisor. Department chair should make sure that first aid stations are accessible and stocked for immediate use. This includes precautions for blood-borne pathogens and disposal of these substances.

LIFTING

Protect your back muscles when lifting heavy or awkward sized objects. Have someone help you. Lift with your arm and leg muscles. Secure help with long boards, even if they are not heavy.

MATERIAL AND PROJECT STORAGE

Store and stack your project work carefully in assigned areas. If the storage is overhead, be sure the material will not fall off. Straighten the lumber rack when you remove a board. Do not leave narrow strips protruding from the end of the storage rack, especially at or near eye level.

ODORS

Be alert for any odors that might indicate overheating of the machine or stock.

SAFETY GUARDS

Make sure all safety guards are in place. Never remove a safety guard.

SECURE APPROVAL

Have your teacher review and approve all work you plan to do in the shop. He or she is the one to decide if the work can and should be done, and will be able to suggest the best, easiest, and safest way to do it.

STANCE

Stand in a comfortable, balanced position when working with power tools. Both feet should be firmly on the floor. Try to be as relaxed as comfortable: if you are unsure about your comfort with the equipment, consult a teacher/supervisor.

STUDENT SUPERVISION REQUIREMENTS FOR TOOLS

Tools	Adult Supervision required for Class IV (y/n)	Adult Supervision required for Class III (y/n)	Adult Supervision required for Class II (y/n)	Adult Supervision required for Class I (y/n)
Power Tools				
Table saw (not saw-stop)	Y	Y	Y	Y
Edger	Y	Y	Y	Y
Lathe	Y	Y	Y	Y
Router table	Y	Y	Y	Y
Planer	Y	Y	Y	Y
Chop saw	Y	Y	N	N
Band saw	Y	N	N	N
Scroll saw	N	N	N	N
Sanding disk/belt	N	N	N	N
Drill press	N	N	N	N
Power Hand Tools				
Skill saw	Y	Y	N	N
Planer	Y	Y	N	N
Router	Y	Y	N	N
Jig saw	N	N	N	N
Sawzall	N	N	N	N
Drill/screwdriver	N	N	N	N
Compressed air blower	N	N	N	N
Hand Tools				
Matt knife	Y	Y	N	N
Chisel	Y	N	N	N
Push saw	N	N	N	N
Coping/keyhole saw	N	N	N	N
Block plane	N	N	N	N
Hammers	N	N	N	N
Screwdrivers	N	N	N	N

SUPERVISOR ON DUTY

When the shop is open for instruction, a teacher is always on duty. When teachers/supervisors exit the shop, all electrical machinery is disabled and work comes to a close. Exceptions for the use of small power tools by Class I and II students on a case by case basis with teacher's permission.

TOOL SELECTION

Select the proper size and type of tool for your work. An expert never uses a tool unless it is sharp and in good condition. Inform your instructor if tools are broken, have loose handles, or need adjustments.

USING TOOLS

- Hold a tool in the correct position while using it. Most edged tools should be held in both hands with the cutting motion away from yourself and other students.
- Be careful when using your hand or fingers as a guide to start a cut. Test the sharpness of a tool with a strip of paper or a scrap of wood.
- **DO NOT USE YOUR FINGERS.**
- Always keep your hands a safe distance from cutters and blades.

VISITORS

The shop is not an appropriate place for visitors. People that do not have any official reason to be in the shop should stay out unless specifically invited by a teacher.

WATER

Never work in or around water with power tools. Water increases the chances of severe electrical shock.

WOOD

Defects in the wood can be dangerous. Check the stock carefully for knots, splits, and other defects. Always notify teacher/supervisor of any defects.

WORKING SPEED

Do not “rush and tear” through your work. The good crafter knows that a steady, unhurried pace is safest and produces the best work.

POWER EQUIPMENT SAFETY RULES

Modern power woodworking machines can save large amounts of time. Learning how to use them safely will be an important part of your experience in the shop. Whether or not you are permitted to use power equipment will depend on your maturity and ability, along with policies established by your teacher/supervisor.

Before operating any power tool or machine you must become thoroughly familiar with the way it works and the correct procedures to follow in its use. As you learn to use a machine the correct way, you will also be learning to use it the safe way.

Study the procedures outlined below carefully. Pay close attention to the demonstrations and directions given by your teacher/supervisor. Know and understand the following general safety rules that apply to power machine operation. You must also learn the specific safety rules that apply to each machine.

GUIDELINES:

- Safety Glasses, ear protection and dust protection must be worn.
- Wear appropriate clothing. Remove coats or jackets, and roll up loose sleeves.
- You must be wide awake and alert. Never operate a machine when you are tired or ill.
- Think through the operation before performing it. Know what you are going to do, and what the machine will do.
- **Always be sure you have the teacher's/supervisor's approval to operate a machine. Your teacher knows you and the machine, and can best decide whether you are qualified to safely operate the machine.**
- Machines should not be used for trivial operations, especially on small pieces of stock. Do not play with machines.
- When you are operating the machine, you are the only one to control it. Start and stop the machine yourself. If someone is helping you, be sure they understand that they are expected to know what to do and how to do it.
- Make all the necessary adjustments before turning on the machine. Some adjustments on certain machines will require the teacher's/supervisor's approval.
- All equipment users upon observing a machine or piece of equipment which is locked out to perform servicing or maintenance, shall not attempt to start, energize or use that machine or equipment.

- Never remove or adjust a safety guard without the teacher's/supervisor's permission.
- Use approved push sticks, push blocks, feather boards, and other safety devices. Some operations may require the use of a special jig or fixture.
- Keep the machine tables and working surfaces clear of tools, stock, and project materials. Also keep the floor free of scraps and excessive litter.
- Do not allow your attention to be distracted while operating a machine. Also, be certain that you do not distract the attention of other machine operators.
- Allow the machine to reach its full operating speed before starting to feed the work. Do not exceed operating characteristics or limits of machine.
- Never leave a machine running while unattended.
- Feed the work carefully and only as fast as the machine will easily cut.
- Maintain the **MARGIN OF SAFETY** specified for the machine. This is the minimum distance your hands should ever come to the cutting tool while in operation.
- If a machine is dull, out of adjustment, or not working properly, shut off the power immediately and inform the teacher/supervisor.
- When you have completed an operation on a machine, shut off the power. Wait until it stops before leaving the machine or setting up another cut.
- Stay clear of machines being operated by other students. See that other students are "out of the way" when you are operating a machine.
- Do not "crowd around" or wait in line to use a machine. Ask the present operator to inform you at your work station when finished. Common standards of courtesy may slow you down, but they will make the shop a safer and more pleasant place to work.

Exercise all cautions necessary for the safe use of this machine as instructed. Do not use if no instruction has been given.

a) **Band Saws- Additional Safety Rules**

- Select appropriate blade.
- Wheel guard doors must be closed, and the blade properly adjusted, before turning on the machine.
- Adjust the upper guide assembly so it is ¼ in. above the work.

- Allow the saw to reach full speed before feeding the work.
- The stock must be held flat on the table.
- Feed the saw only as fast as the teeth can easily remove the wood.
- Maintain a 2 in. margin of safety.
- Plan saw cuts to avoid backing out of curves whenever possible.
- Make turns carefully and do not cut radii so small that the blade is twisted.
- Stop the machine before backing out of a long, curved cut.
- Round stock should not be cut unless mounted securely in a jig or hand screw.
- If you hear a clicking noise, turn off the machine at once. This indicates a crack in the blade. If the blade breaks, shut off the power and move away from the machine until both wheels stop.
- Turn off the machine as soon as you have finished your work. If the machine has a brake, apply it smoothly. Do not leave the machine until it has stopped running.

b) **Drill Presses- Additional Safety Rules**

- Check the speed setting to see that it is correct for your work. Holes over ½ in. should be bored at the lowest speed. Work must be secured/clamped to table.
- Use only an approved type of bit. Bits with feed screws or those with excessive length should not be used.
- Mount the bit securely to the full depth of the chuck and in the center. Remove the key immediately.
- Position the table and adjust the feed stroke so there is no chance of the bit hitting the table.
- The work should be placed on a wood pad when the holes are drilled all the way through.
- Work that will be held by hand should be center punched.
- Small or irregular shaped pieces must be clamped to the table or held in some special fixture.

- Feed the bit smoothly into the work. When the hold is deep, withdraw it frequently to clear the shavings and cool the bit.
- When using special clamping setups or a hold saw or fly cutter, have your teacher/supervisor inspect it before turning it on.

c) **Finishing- Additional Safety Rules**

- Wear safety glasses when applying finishing materials.
- Wear rubber gloves, goggles, and rubber apron when applying bleaches and acids.
- Thinners and reducers such as naphtha, benzene, lacquer thinner, and enamel reducer must be applied in a well-ventilated room. Fumes have a toxic effect.
- Store all chemicals and soiled rags in proper safe containers. Many chemicals and rags are highly flammable.
- Spraying should be performed in a well ventilated booth or outside to reduce toxic fumes.
- Wash you hands well after applying a finish in order to remove any toxic materials that you have handled.
- Know where the sink, shower, or eye wash station is located in the event you are burned by a finishing material.
- Check the location of an approved fire extinguisher in the finishing area.

d) **Jig Saws- Additional Safety Rules**

- Make sure to select the appropriate blade. Be certain the blade is properly installed. It should be in a vertical position with the teeth pointing down.
- Roll the machine over by hand to see if there is clearance for the blade, and if the tension sleeve has been properly set.
- Check the belt guard to see that it is closed and tight.
- Keep the hold-down adjusted so the work will not be raised off the table.
- Always cut with material clamped or balanced. Always cut close to a supporting edge with greater piece of material on supporting surface.
- When the saw is running, do not permit your fingers to get directly in line with

the blade. The work can usually be held on either side of the cutting line.

e) **Lathes- Additional Safety Rules**

- Before starting the machine, be sure that spindle work has the cup center properly imbedded, tailstock and tool rest securely clamped, and proper clearance for the rotating stock.
- Before starting the machine for faceplate work, check to see that the faceplate is tight against the spindle shoulder and the tool support has proper clearance.
- Wear goggles or a face shield to protect your eyes, especially when roughing out work. The lathe should have a guard.
- Select turning speed carefully. Large diameters must be turned at the lowest speed. Always use the lowest speed to rough out work.
- Wood with knots and splits should not be turned. Glued-up stock should cure the proper amount of time – at least 24 hours.
- Keep the tool rest close to the work.
- Remove the tool rest for sanding and polishing operations.
- Use a scraping cut for all faceplate work.
- Remove both the spur and cup centers when they are not in use.
- When you stop the lathe to check your work, also check and lubricate the cup center.
- Keep the lathe tools sharp; hold them firmly and in the proper position.

f) **Planers- Additional Safety Rules**

- Must have adult supervision to operate the machine.
- Adjust the machine to the correct thickness of cut before turning on the power.
- Stock should be at least 12 in. long, or several inches longer than the distance between the centers of the feed rolls. Use push stick.
- Surface only new lumber that is free of loose knots and serious defects.
- Plane with the grain, or at a slight angle with the grain. Never attempt to plane

cross grain.

- Stand to one side of the work being fed through the machine.
- Do not look into the throat of the planer while it is running.
- Do not feed stock of different thicknesses side by side through the machine, unless it is equipped with a sectional in-feed roll.
- Handle and hold the stock only in an area beyond the ends of the table.
- If the machine is not working properly, shut off the power at once and inform the teacher.

g) **Portable Circular Saws- Additional Safety Rules**

- Stock must be secured in such a way that the kerf will not close and bind the blade during the cut or at the end of the cut.
- Thin materials should be supported on benches. Small pieces should be clamped in a vise or onto a bench top or sawhorse.
- Be careful not to cut into the bench, sawhorse, or other supporting devices.
- Adjust the depth of cut to the thickness of the stock, and add about 1/8 in.
- Check the base and angle adjustment to be sure they are tight. Plug in the cord to a grounded outlet and be sure it will not become fouled in the work.
- Always place the saw base on the stock, with the blade clear, before turning on the switch.
- During the cut, stand to one side of the cutting line.
- Large saws will have two handles. Keep both hands on them during the cutting operation. Small saws should also be guided with both hands when possible.
- Always unplug the machine to change blades or make major adjustments.
- Always use a sharp blade with plenty of set. Blade selection for material being cut.

h) **Portable Electric Drills- Additional Safety Rules**

- Select the correct drill or bit. Mount it securely to the full depth of the chuck.

- Either clamp a scrap piece under work to prevent splintering the underside, or drill from both sides.
- Stock to be drilled must be held in a stationary position so it cannot be moved during the operation.
- Connect the drill to a properly grounded outlet. Check for damaged cords and remove from device if found.
- Turn on the switch for a moment to see if the bit is properly centered and running true.
- With the switch off, place the point of the bit in the punched layout hole.
- Hold the drill firmly in one or both hands and at the correct drilling angle.
- Keep long hair or loose clothing tied back and away from rotating drill.
- Turn on the switch and feed the drill into the work. The pressure required will vary with the size of the drill and the kind of wood.
- During the operation, keep the drill aligned with the direction of the hole.
- When drilling deep holes, especially with a twist drill, withdraw the drill several times to clear the shavings.
- Follow the same precautions and procedures as when drilling holes with the drill press.

i) **Radial Arm Saws- Additional Safety Rules**

- Stock must be held firmly on the table and against the fence for all crosscutting operations. The ends of long boards must be supported level with the table.
- Before turning on the motor be certain that all clamps and locking devices are tight and the depth of cut is correct.
- Keep the guard and anti-kickback device in position. Do not remove them without your teacher/supervisor's permission.
- Always return the saw to the rear of the table after completing a crosscut or miter cut. Never remove stock from the table until the saw has been returned.
- Maintain a 6 in. margin of safety.

- Shut off the motor and wait for the blade to stop before making any adjustments. Remove power cord before making adjustments to the blade.
- Be sure the blade is stopped before you leave the machine.
- Keep the table clean and free of wood scraps and excessive amounts of sawdust.
- Secure approval from your instructor before making ripping cuts or other special setups. When ripping stock it must be flat and have one straight edge to move along the fence.
- When ripping, always feed stock into the blade so that the bottom teeth are turning toward you. This will be the side opposite the anti-kickback fingers.
- **NOTE:** When using portable “chop saw” always lock it down when done and unplug the cord.

j) **Router- Additional Safety Rules**

- Disconnect the power cord before changing router bits.
- Bit selection must match the material being used.
- Clamp router bits securely in the chuck. At least 1/2 inch (12 mm) of the shank should be inserted.
- Make sure the router switch is in the off position before connecting the power.
- Do not make any router cuts unless the stock is securely clamped. The router can throw loose stock with great force.
- Before you start cutting, make sure nothing is in the router’s path.
- Hold the router tightly when starting the motor.
- Always feed the router against the rotation of the bit. If you feed with the rotation the bit can dig into the stock. This can cause the router to kick back or throw the stock.
- After finishing a cut, wait for the router to completely stop. Then lay the router down. The bit should point away from you.

k) **Sanding Machines - Additional Safety Rules**

- Be certain the belt or disc is correctly mounted. Select belt according to the material being used. The belt must track in the center of the drums and platen. Do not operate the disc sander if the abrasive paper is loose.
- Check the guards and table adjustments to see that they are in the correct position and locked securely in place.
- Use the table, fence, and other guides to control the position of the work, whenever possible.
- Small or irregular-shaped pieces should be held in a hand clamp, or a special jig or fixture.
- When sanding the end grain of narrow pieces on the belt sander, always support the work against the table.
- Sand only on the side of the disc sander that is moving toward the table. Move work along this surface so it will not burn.
- Always use a pad or push block when sanding thin pieces on the belt sander.
- Do not use power sanders to form and shape parts when the operations could be better performed on other machines.
- Sand only clean new wood. Do not sand work that has excess glue or finish on the surface. These materials will load and foul the abrasive.
- Wear appropriate dust mask. Turn on ventilation or filtration units wear necessary. Do not sand materials that are toxic for breathing in particulate form.

l) **Scroll Saw- Additional Safety Rules**

- Make all setups and adjustments with the power off. Power cords should be unplugged.
- Use the correct blade for the stock (thickness) and curve (sharpness) being cut.
- Never try to turn a small radius with a wide blade. The radius should not be more than three times the blade width.
- Clamp the blade securely in both chucks with the teeth pointing down.
- Adjust the guides so they properly support the blade.

- Adjust the hold down so that it applies light pressure to the stock.
- Rotate the motor by hand to check that all adjustments have been made properly.
- Plan cuts to avoid backing out of curves.
- Do not force the work into the blade. This can cause the blade to bend the break.
- Keep your fingers out of line with the saw.

m) **Shaper- Additional Safety Rules**

- Whenever possible, install the cutter so the bottom of the stock is shaped.
- In this way the stock will cover most of the cutter and act as a guard.
- Make sure the cutter is locked securely to the spindle.
- Always position the left fence so that it will support the work that has passed the cutters.
- Adjust the spindle for correct height and then lock in position. Rotate the spindle by hand to make sure it clears all guards, fences, etc.
- Check the direction of rotation by snapping the switch on and off; watch as the cutters come to rest. **ALWAYS FEED AGAINST THE CUTTING EDGE, THAT IS, FEED THE WORK IN TO THE CUTTERS IN THE DIRECTION OPPOSITE TO CUTTER ROTATION.** Some shapers have a reversing switch so that the spindle can be rotated either clockwise or counter clockwise.
- Examine the stock carefully before cutting to make sure it is free of defects. Never cut through a loose knot or stock that is cracked or split.
- Hold the stock down and against the fence with the hands on top of the material, yet out of range of the cutters.
- Use all guards, jigs, and clamping devices whenever possible.
- Always use a depth collar when shaping irregular work. Put a guide pin in the table to start the cutting.
- Do not set spring hold-down clips too tightly against the work. Use just enough tension to hold the work against the fence.

n) **Sliding Miter Saw- Additional Safety Rules**

- Make all adjustments while the machine is turned off. Make sure to unplug cords or remove them from the area.
- Never reach across the path of the blade. When the machine is running, always keep your hands at least 6 inches (150 mm) from the blade.
- Keep the safety guard in position at all times.
- Wait until the blade is running full speed to start a cut.
- Never stand in line with the blade. If you push the blade with your right hand, stand to the left. If you push the blade with your left hand, stand to the right.
- Use one hand to push the saw through the stock. Use the other hand to hold the stock against the fence. Keep both hands away from the cutting line.
- Cut only one piece of wood at a time.
- Feed the blade slowly.

o) **Surfacer- Additional Safety Rules**

- Remove all loose knots from the stock before surfacing.
- Do not surface stock shorter than the distance between the centers of the in-feed and out-feed rolls. This is usually about 12 inches (300 mm), or more.
- Never stand directly behind a board being surfaced. The stock could kick back and cause an injury.
- Never look into the surfacer while the cutter-head is rotating.
- Make sure one face is flat before you surface a board. Place the flat face against the table.
- If a board does not feed through the surfacer, turn off the power. Wait until the cutter-head stops completely. Then lower the table and remove the board.
- Keep your hands away from the areas around the feed rolls. You could easily pinch your fingers in these areas.
- Feed the stock with the grain. Otherwise, the stock can chip and break. The pieces can then be thrown from the surfacer.

p) **Table Saws- Additional Safety Rules**

Do not use without supervision and repeat instruction from a supervisor.
Understand what “kickback” is in order to avoid it.

- Be certain the blade is sharp and the right one for your work.
- The saw is equipped with a guard and a splitter. Be sure to use them.
- Set the blade so it extends about ¼ in. above the stock to be cut.
- Stand to one side of the operating blade and do not reach across it.
- Maintain a 4 in. margin of safety. E.g. clamp a small piece of stock to a larger piece to cut safely.
- Stock should be surfaced, with at least one edge jointed before being cut on the saw.
- The position of the stock must be controlled either by the fence or the miter gauge. NEVER CUT STOCK FREE HAND.
- Use only new stock that is free of knots, splits, and warp.
- Stop the saw before making adjustments to the fence or blade.
- Do not let small scrap cuttings accumulate around the saw blade. Use a push stick to move them away.
- Re-sawing and other special setups must be inspected by the instructor before power is turned on.
- The dado or any special blades should be removed from the saw after use.
- Students helping to “tail-off” the saw should not push or pull on the stock but only support it. The operator must control the feed and direction of the cut.
- As you complete your work, turn off the machine and remain until the blade has stopped. Clear the saw table and place waste cuttings in the scrap box.

q) **Wood Lathe- Additional Safety Rules**

- Check the wood to make sure it has no defects that would cause it to break when turning.

- Check all glue joints before mounting the stock. A weak joint may come apart when revolving at high speeds. Make sure glued-up stock is completely dry before turning.
- Fasten stock securely between centers. Make sure the tailstock is locked before turning on the power.
- Adjust the tool rest as close to the stock as possible. Then revolve the stock by hand to make sure it clears the rest.
- Always stop the lathe before making any adjustments such as changing the position of the tool rest.
- Run all stock at the slowest speed until it is rounded.
- Hold turning tools firmly in both hands.
- Keep the tool rest as close to the work as possible. At intervals, stop the lathe and readjust.
- Make sure the stock is firmly fastened to the faceplate before turning.
- Remove the tool rest when sanding or polishing. If you don't, your fingers may get caught between the tool rest and the stock.