

Brier Terrace Middle School Safety Approach

James Sullivan

- Students read safety guidelines packet
- Students observe safety demonstration on each tool
- Students participate in safety review
- Students familiarize themselves with the adjustments of the tooling without power
- Students must pass safety test with 100% score
- Students who can not achieve a 100% score, complete assigned safety bookwork
- All students are trained safety monitors and are supervised while working on machines in the lab.

Students operate the following machines:

Band Saw

Belt/disk sander

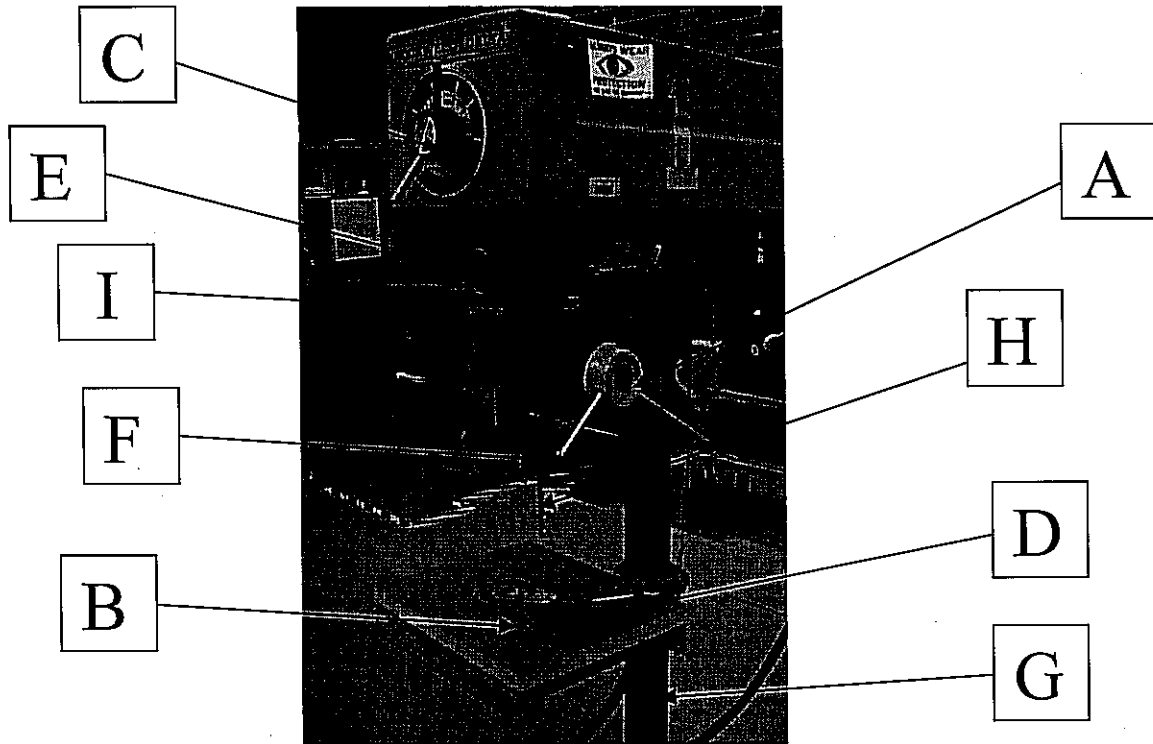
Scroll Saw

Drill Press

Various hand tools including hand drill and Dremels

DRILL PRESS

Name: _____
Per: _____ Date: _____



1. Name the parts of the drill press.

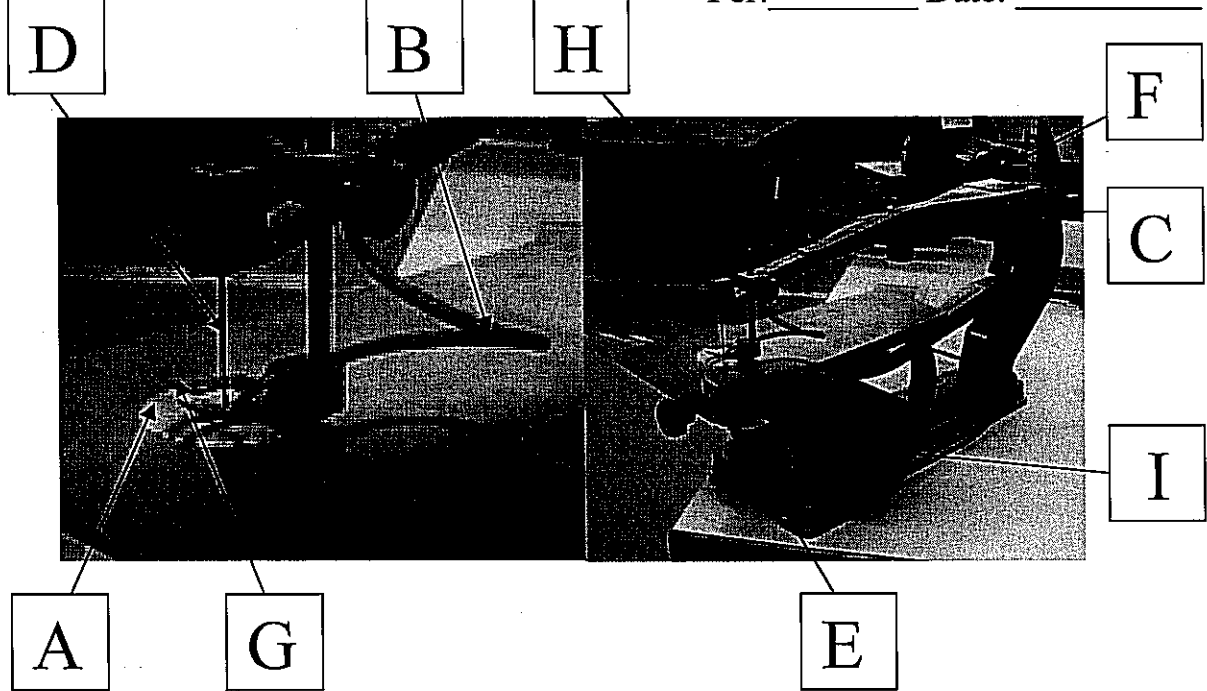
- _____ Depth Stop
- _____ Switch
- _____ Table
- _____ Chuck
- _____ Drill Bit

- _____ Feed Lever
- _____ Column
- _____ Chuck Key
- _____ Speed Adjustment

2. Hold the material securely with a _____.
3. Always wear _____ or face shield.
4. Shut off the power and _____ the table before you leave the machine.
5. Remove the _____ before turning the machine on.
6. If wood gets caught in the drill bit _____.
7. Place a _____ on the table before drilling to prevent splintering.

SCROLL SAW

Name: _____
 Per: _____ Date: _____



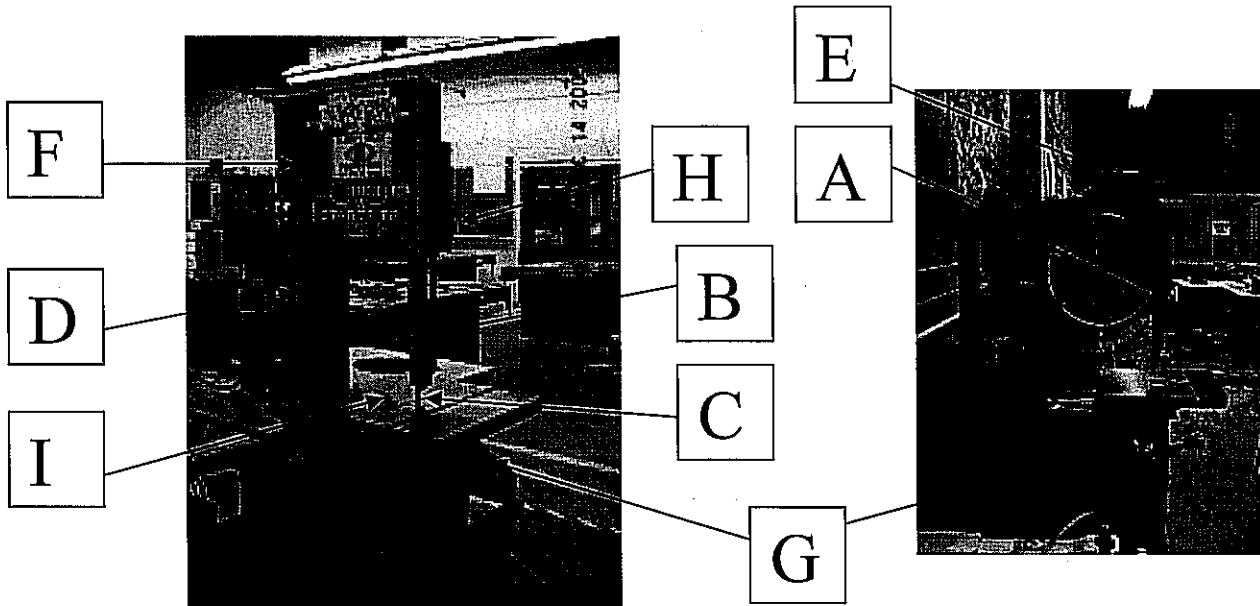
1. Name the parts of the scroll saw.

- | | |
|---|--|
| <p>_____ Over arm</p> <p>_____ Motor</p> <p>_____ Tension Adjustment</p> <p>_____ Guide post</p> <p>_____ Table</p> | <p>_____ Hold down</p> <p>_____ Table insert</p> <p>_____ Blade</p> <p>_____ Dust Blower</p> |
|---|--|

- | | | |
|---|---|---|
| 2. If the blade pinches in the kerf, do not stop the machine. | T | F |
| 3. Eye protection must be worn. | T | F |
| 4. It is not necessary to have the flat side of the stock next to the table. | T | F |
| 5. Fingers should be kept away from the "line of cut". | T | F |
| 6. Adjustments may be made while the saw is running. | T | F |
| 7. The hold-down should bear lightly on the work. | T | F |
| 8. Avoid overloading the machine by feeding the stock to fast. | T | F |
| 9. Turning the wood to sharp can pinch the blade. | T | F |

BAND SAW

Name: _____
Per: _____ Date: _____



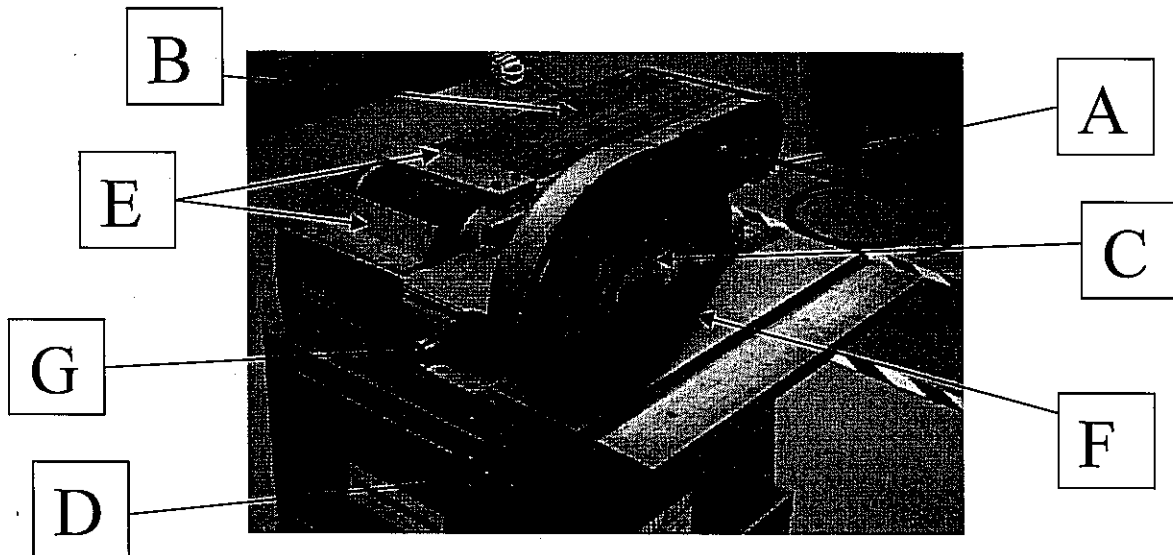
1. Name the parts of the band saw.

- | | |
|------------------------------|--------------------------------|
| _____ Switch | _____ Blade Tension Adjustment |
| _____ Upper Wheel | _____ Table |
| _____ Dust Collection System | _____ Upper Wheel Guard |
| _____ Blade | _____ Guide Assembly Lock |
| _____ Guide Assembly | |

2. You should always wear _____ or a face shield.
3. Adjust the upper guide about _____ above the material being cut.
4. Make _____ cuts before cutting curves.
5. Shut off the power and do not leave until the machine has come to a _____.
6. Turn _____ the machine before the blade is backed out of the cut.
7. The size of the saw is determined by the size of its _____.
8. Fingers should be at least _____ away from the blade.

DISC & BELT SANDER

Name: _____
Per: _____ Date: _____



1. Name the parts of the sander

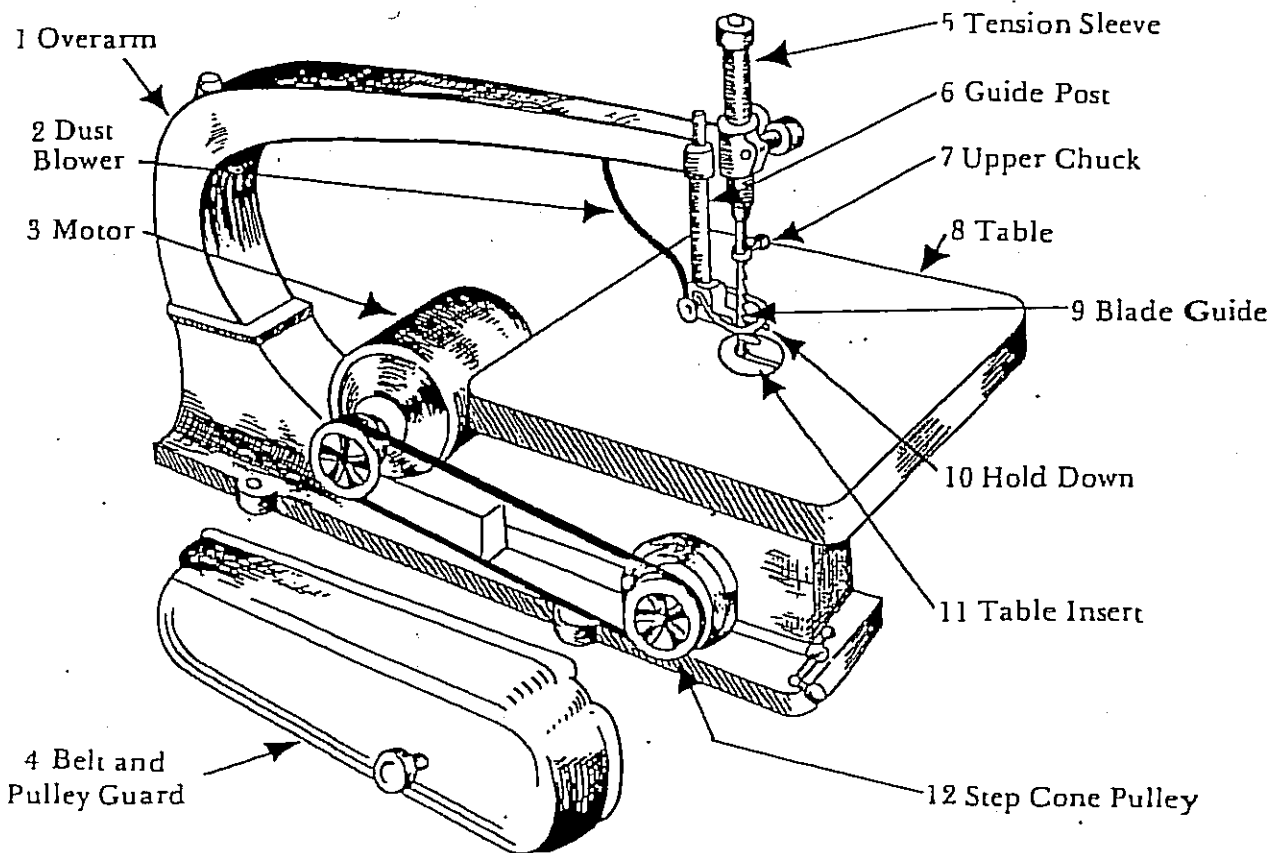
_____ Belt Tension Knob
_____ Abrasive Belt
_____ Belt Guard
_____ Table

_____ Switch
_____ Abrasive Disc
_____ Table Tilt Lock Knob

- You should always wear _____ or a face shield.
- You should always sand on the _____ side of the disc.
- You should always have the _____ system turned on.
- You should remove _____ and _____.
- Fingers should be _____ away from the disc.
- The machine should completely _____ before walking away.

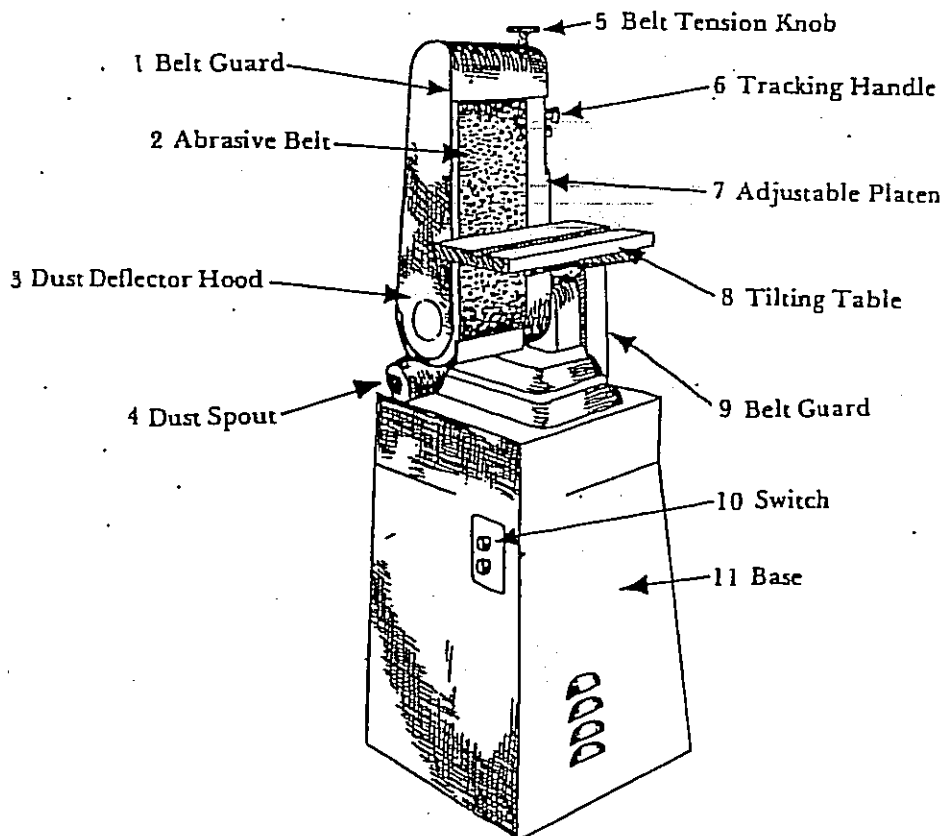
Scroll Saw

1. Operate only with instructor's permission and after you have received instruction.
2. Remove jewelry, eliminate loose clothing, and confine long hair.
3. Make sure all guards are in place and operating correctly.
4. Always use proper eye protection.
5. Make all adjustments before turning on scroll saw.
6. Lower the hold-down so that the spring fingers bear lightly on the work.
7. The danger area is within the "line of cut." Hold work piece with both hands on either side of the "saw line."
8. Shut off power and clean the machine before you leave it.
9. Avoid overloading the machine by feeding the stock too fast.
10. Avoid pinching the blade by turning too sharply.



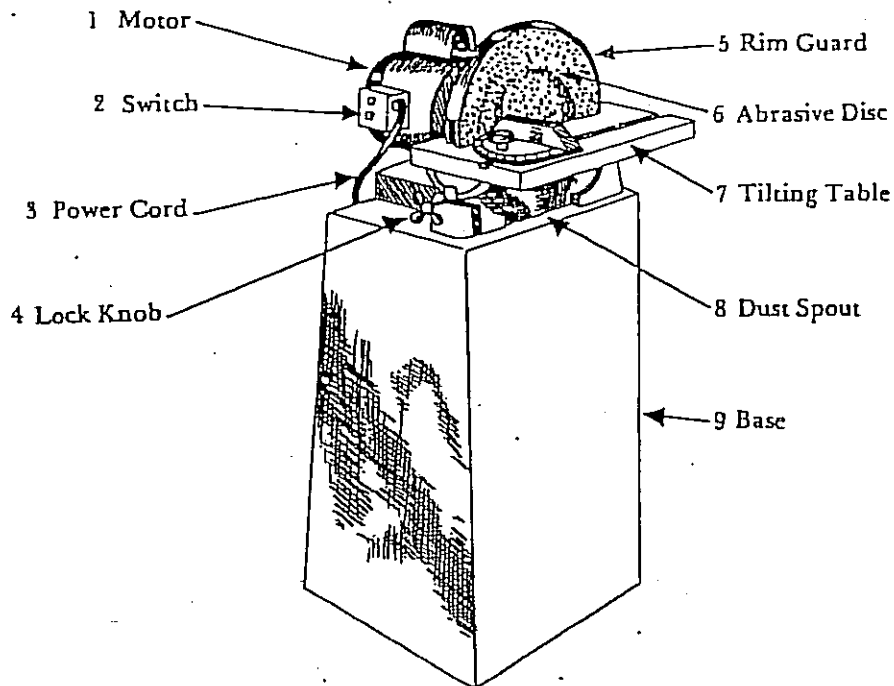
Belt Finishing Machine

1. Operate only with instructor's permission and after you have received instruction.
2. Remove jewelry, eliminate loose clothing, and confine long hair.
3. Make sure all guards are in place and operating correctly.
4. Always use proper eye protection.
5. Make all adjustments except final belt tracking with the power off.
6. Make sure there is adequate strong tension on the belt and that it is not torn.
7. When changing belts, make sure the new belt runs as arrow indicate.
8. The table should be adjusted to within 1/16" of the abrasive belt.
9. Keep hands clear of the abrasive belt while operating and keep material flat on the table.
10. The belt must be re-tracked if the angle of the basic machine is changed.



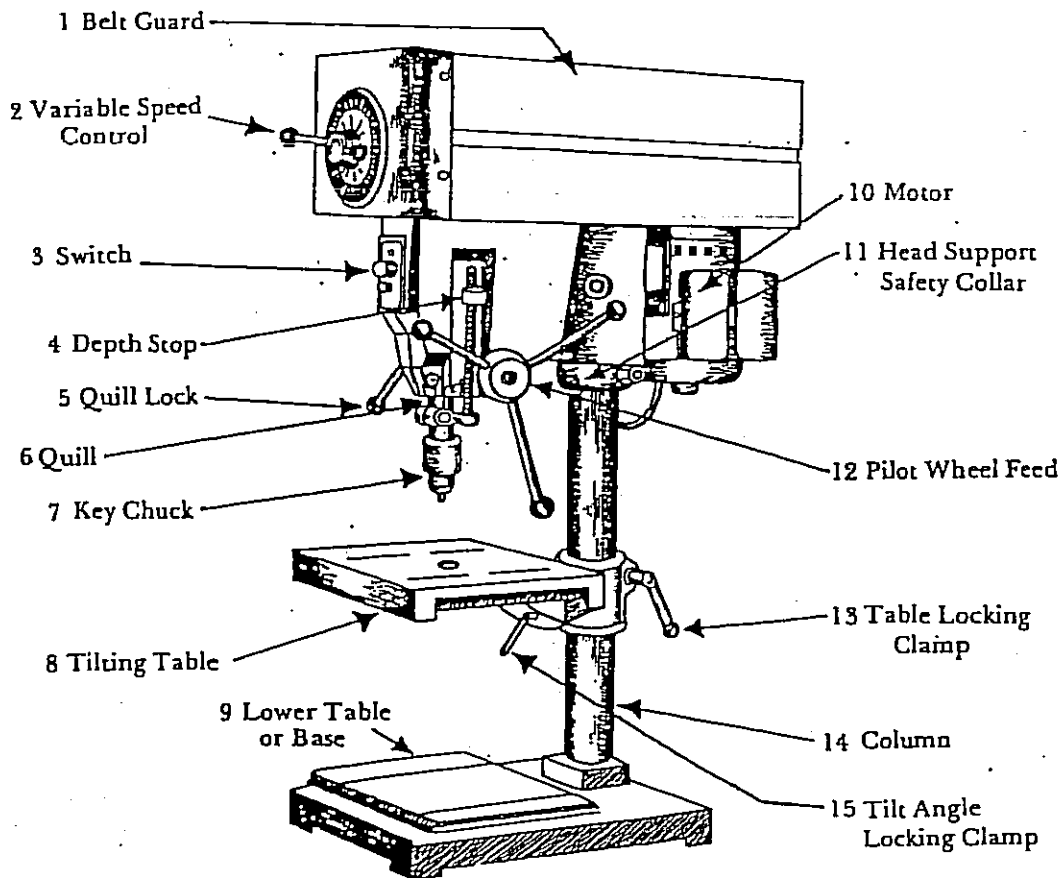
Disc Finishing Machine

1. Operate only with instructor's permission and after you have received instruction.
2. Remove jewelry, eliminate loose clothing, and confine long hair.
3. Make sure all guards are in place and operating correctly.
4. Always use proper eye protection.
5. Make sure adhesive is holding abrasive disc tightly to the revolving platen.
6. Abrasive disc should not be torn or damaged.
7. Material should be held flat against the table and hands kept clear of the abrasive disc.
8. The table should be adjusted to within 1/16" of the disc.
9. Work must be done on the side of the disc rotating downward.
10. Do not leave this machine until it has coasted to a full stop.



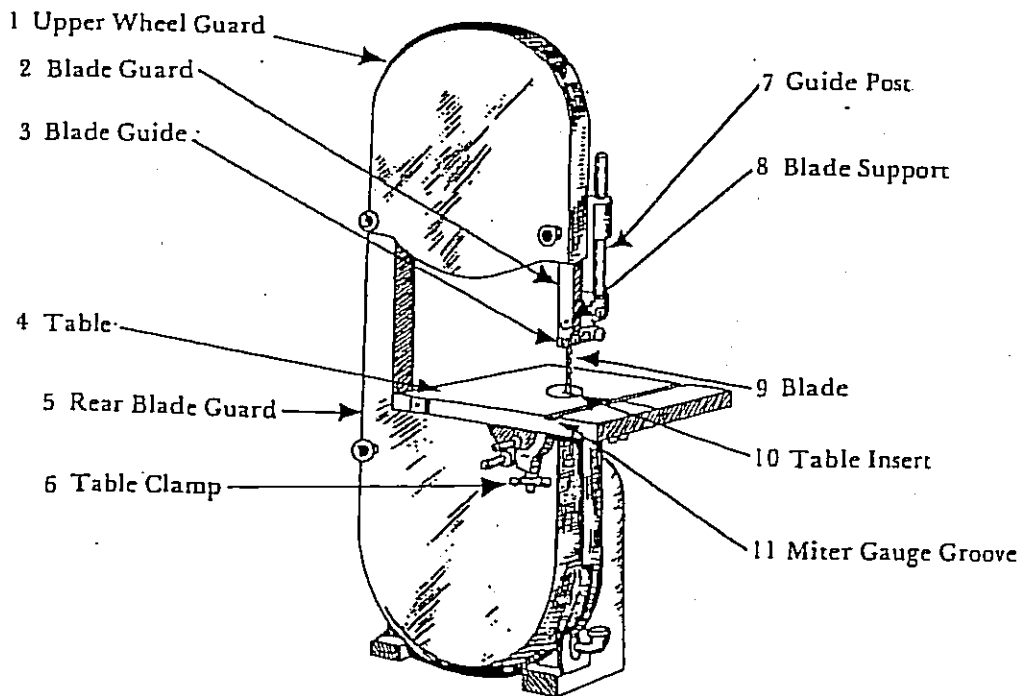
Drill Press

1. Operate only with instructor's permission and after you have received instruction.
2. Remove jewelry, eliminate loose clothing, and confine long hair.
3. Make sure all guards are in place and operating correctly.
4. Always use proper eye protection.
5. Select properly sharpened drill bit — tighten in chuck and remove key.
6. Clamp material — check for safety — turn on power.
7. If a piece of work is caught in the drill — turn off power — do not try to stop by hand.
8. Select speed carefully — the larger the drill the slower the speed.



Band Saw

1. Operate only with instructor's permission and after you have received instruction.
2. Remove jewelry, eliminate loose clothing, and confine long hair.
3. Make sure all guards are in place and operating correctly.
4. Always use proper eye protection.
5. Adjust the guide and guard to within 1/4 inch of work.
6. Remove scrap only when machine is stopped.
7. Avoid backing out of a cut (kerf).
8. Keep hands and fingers in such a position that there is no danger of their slipping into the blade. Hold work piece on the right side of the cutting line. Use a push stick where necessary.
9. Do not leave the machine until it has stopped.
10. Consult with your instructor before cutting large or irregular shaped pieces.



Brier Terrace Middle School Hazardous Materials Listing

Rooms 31 & 32 Sci-Ma-Tech

Prepared by James Sullivan

Location	Product	Application
Finish Room Flammable Cabinet	Spray Paint 60 Cans	Painting CO2 Powered Cars
Finish Room Flammable Cabinet	Danish Oil 1 Gallon Cans 5 Cans	Wood finishing
Finish Room Flammable Cabinet	Lacquer Thinner & Acetone 1 Gallon each	Tool cleaning & Maintenance
Room 32 West Cabinets	CO2 Cartridges 8 gram 300 Cartridges	CO2 powered Car Projects
Room 32 West Cabinets	Wood Glue 2 Gallons	Gluing Projects
Finish Room Flammable Cabinet	Cox model aircraft fuel 1 quart	.049 engine project
Room 32 East Cabinets	Estes Solid Fuel Rocket Engines Approx 75 – A grade model Rocket engines	Model Rocket unit

Metal Shop Room 31	Oxygen/Acetylene Tanks 2 of each	Gas welding
Metal Shop Room 31	1 Large Co2 Tank	Wire feed welding
Metal Shop Room 31	1 Map Gas 20 Ounce	Demonstration Torch