

Name: _____ Date: _____ Grade: _____/500

Machine Safety

Use <https://nickcornwell.weebly.com/machinelab-safety.html> if you do not get every answer you need from the class presentation. Each question is worth 5 points.

Band Saw

1. The blade guard should be _____ inches above the wood you are cutting.
2. How do you adjust the band saw blade guard?

3. What is resawing? (5 pts each) Draw a picture as example and label how it is done.

4. Band saws are sized by how big the _____ is. Draw a picture explaining this.

5. Your hands should never be in line with the _____.
6. If the band saw starts to squeal, it means the blade is _____ and you should use _____ cuts.
7. What is a relief cut? Explain why it is important to use relief cuts.

8. Explain how to properly use a band saw fence and why it is done.

Drill Press and drilling

9. Draw the outline of a forstner bit

10. Draw the outline of a paddlewheel or spade bit

11. Draw the outline a brad point bit

12. Explain when and how you should clamp something down on the drill press.

13. What should be under your work when drilling?

14. Draw a chuck key and explain what it does.

15. How do you change a bit in a cordless drill?

Wood Lathe

16. Where should long hair and long sleeves be when using the lathe? (5 pts each)

17. Draw the shape of a skew and what it is used to shape.

18. Draw a gouge and state its purpose

19. Draw a parting tool and state its purpose

20. Draw a spur center and state its purpose

21. Always hold lathe tools in _____ hands. Never _____ turning wood stock.

22. Draw and caliper and explain how to measure with it.

23. When using the lathe, large chips of wood/sawdust means you are _____ or _____. Small chips/sawdust means you are _____ and your tools are _____.

24. Label the steps in order to mount wood on a lathe.

| | | | |
|--|--|--|--|
| | Use a rubber mallet (not a hammer!) to hit spur center into end of one side of wood | | Insert spur center into head stock |
| | Adjust tool rest so that it is 1/4" away from turning wood. | | Draw perpendicular lines on the ends of each side of wood (corner to corner) |
| | Saw perpendicular lines 1/8" deep so spur center will fit in cuts. | | Rotate wood one time to see that it will not hit tool rest, then turn on. |
| | Lock tail stock and tighten tail stock point so that the end of wood is dented (roughly 1/8" deep) | | Adjust tail stock so point is in the center of the X on the end of wood. |

Disc and Belt Sander and Orbital Sanders

25. What side of the disc sander should you use to sand on?

26. What should be turned on before turning on the sander?

27. What is the maximum thickness of wood that should be sanded off? Draw a 1/4" line below and label it.

28. Explain how to use the sander cleaner.

29. The sander is only to sand _____. No metal, plastic, etc.

30. Draw the direction that a random orbital sander takes when sanding.

Scroll Saw and Jig Saw

31. The maximum thickness of wood that a scroll saw or hand-held jig saw can cut is _____.

32. Explain how you cut out the middle of a piece of stock using the scroll saw.

33. What is the pressure foot and what does it do?

General Wood Shop Safety Questions

34. Explain the difference between a push stick and push pad. Draw and label an example of each below.

35. What should you do before you use any machine in the shop?

36. List the general safety rules needed for every machine in the lab.

Portable Power and Hand Tools

37. Explain the difference between 80, 120, 220 and 400-grit sandpaper.

38. Draw and label a bar clamp and a wood clamp.

39. Explain the difference between hook and loop orbital sanders and peel and stick sanders.
40. What tools are needed to properly open a paint can? What tools are needed to properly close a paint can?

Important woodworking terms

41. What is the difference between ripping and crosscutting a piece of lumber?
42. Explain what wood grain is. Draw a picture below to help illustrate your definition.
43. Softwoods come from _____ trees; Hardwoods come from _____ trees.
44. Define kerf-
45. What is a vise? What are bench dogs and how are they used with a vise?
46. Steel wool is classified in 0, 00,000, and 0000. Which size is the finest? _____
47. What should you do if you find a broken tool or machine?
48. Where are the emergency stop buttons in the shop? Why should you use them? What will happen if you push the button and there is no emergency.
49. What is the only thing that should be swept in the dust collector? _____ What happens if you put nails or scrap wood in it?
50. Wood glue is completely cured/dried after _____ hours.

Table Saw

51. Never _____ cut on the table saw. Only straight cuts!
52. Never use the _____ fence and _____ gauge at the same time. Use one or the other.
53. What does the height adjusting handwheel do? How far above the stock should the blade be set to?
54. What does the blade tilt handwheel do? What is the angle range of cuts for each table saw?
55. Is it possible to cut round stock on the table saw? _____
56. True or False: You should never stand in line with the blade or have your hands in line with the blade.
57. The miter head gauge is calibrated in _____.
58. True or False: You should cut boards that visibly have nails or screws in them.

Jointer

59. To joint wood, the direction of our machine is from _____ to _____.
60. Always stand to the _____ and out of line of the cutterhead knives. Always use the _____ guard when jointing.
61. Do not allow the hand to pass directly above the cutterhead while applying pressure to the stock. Keep hand(s) at least _____ inches away from the cutterhead.
62. Never joint _____ grain on the jointer. Only edge or face jointing.
63. Keep stock flush against the _____ when jointing.
64. The minimum length of stock you can joint is _____ inches.
65. When face jointing, you must use a _____.
66. For our class, keep the jointer fence set to _____ degrees.
67. Before using the jointer, make sure no one is standing _____.

Planer

68. The maximum amount of wood you can plane off in one pass is _____. One complete turn on the bed elevating handwheel = _____.

69. Two basic safety rules for the planer: Wear _____ & _____ protection. Never _____ into the machine while it is running.

70. The minimum length of board you should run through the planer is _____ inches. If it is shorter it could spin like a frisbee and shoot out of the planer at over 70 mph.

71. Never send wood through the planer where the end grain has been _____ together to other pieces.

72. The only direction that wood should go into the planer is _____.

73. Where should you stand when using the planer?

74. How many boards can you plane at one time?

75. When should you use a helper on the planer? What does the helper do?

76. Explain what to do if the wood stops half way through the machine.

77. Make sure your wood does not have _____ or _____ before you run it through the planer. Also never put _____ wood into the planer.

78. How do you adjust the planer before you start?

79. Your hands should never go past the _____

Router

80 & 81. Draw the 10 types of most common router profiles in the table below. (1 point each)

| Chamfer | Cove | V-Groove | Round-Nose | Dado |
|--------------|--------------|--------------|--------------|--------------|
| | | | | |
| Rabbeting | Dovetail | Round Over | Roman Ogee | Beading |
| | | | | |

82. The part used to hold bits in a portable router is the _____.
83. When starting a cut with the router, the bit should _____. You should also have both hands on the router.
84. What should you do with the power cord to the router while routing stock?
85. A major safety precaution to observe when changing router bits is _____.
86. To prevent splintering at the corners, one should cut the _____ first.

Miter Saw

87. How must the saw blade be held after the cut is finished and before the blade stops rotating?
88. Your fingers should be at least _____ inches away from any stock you are cutting.
89. Always hold or clamp stock to the miter saw to the _____ when cutting.
90. Never _____ your arms when cutting.
91. What should you do if there is a kickback on the miter saw?
92. What is a compound miter?
93. Long stock should be supported by _____. Never a _____.
94. True or false: You can rip on a miter saw.
95. Align the saw blade on the _____ side of the cut line.
96. Never cut anything smaller than _____ inches in length.
97. True or false: You can cut boards wider than 12" on a miter saw.
98. True or false: Never reach behind or across the blade while the miter saw is plugged in.
99. Where should the cord be when using a miter saw? _____
100. What is a stop block used for on a miter saw?

