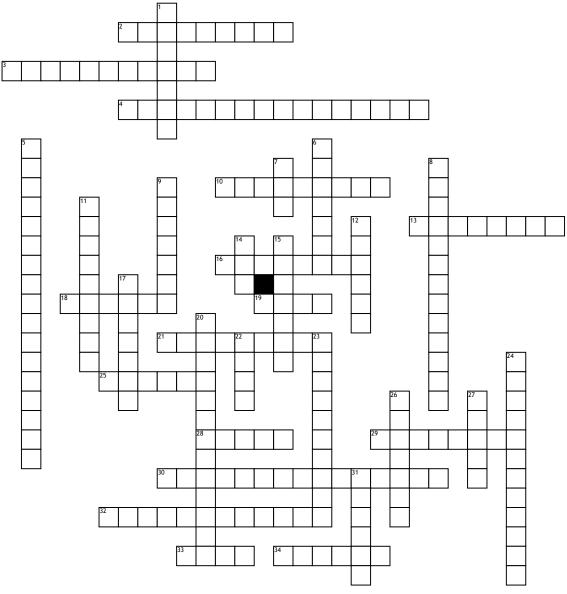
Name:	Date:	

Tooling



Across

- 2. The type of borring bit used on the CNC.
- **3.** A carbide CNC bit that direct the cutting forces to the center of the workpiece from both sides of the piece, leaving both sides with clean edges.
- **4.** a gold or orange brad point boring bit rotates
- 10. A black brad point boring bit
- **13.** 2 knives on the same head must weigh the same to ensure the tool is _______.
- **16.** Tool diameter affects knife mark depth, The greater the _____head , the shallower the knife mark depth.
- ${f 18.}$ The cutting of one piece into ${f 2}$ or more pieces is called?
- 19. To increase KMPI you must increase the spindle RPM, Increase the # of knives and ______the feed rate.
- **21.** wear resistance has to do with 2 things, 1 is hardness the other is?

- **25.** Tooling that is not good for heavy workloads but used when quick and accurate change overs are necessary.
- 28. What is the example for hard but not tough?
- **29.** Sawblade required when primarily cutting against the grain.
- ${\bf 30.}$ On circular saw blades, what does the abbreviation TCG stand for?
- **32.** Cutting with the rotation of the bit.
- 33. The space left when grooving a piece of material.
- 34. What is the example for tough but not havd?

Down

- 1. Router and boring bits have _____ speed (rpm) limits.
- ${\bf 5.}$ On circular saw blades, what does the abbreviation ATB stand for?
- ${\bf 6.}$ A carbide CNC bit that has a spiral that directs cutting forces toward the workpiece from the top side
- 7. ____cutting tools are very resistant to corrosion.
- 8. On a sawblade, is used for heat control
- **9.** There are three categories of wood machining. Sawing, Boring and...

- 11. Shallow dents or depressions in the surface caused by inadequate dust extraction are?
- 12. The drilling of a hole into or through material
- 14. Sawblade required when primarily cutting with the grain.
- **15.** Hardwoods require a $___$ rake angle than softwoods
- 17. The S4Sing of material into a certain thickness and width $% \left(1\right) =\left(1\right) \left(1\right$
- **20.** The most dangerous part on a cutterhead as it rotates because it cannot be seen.
- 22. A tool material that is brittle is likely to be...
- ${\bf 23.}~{\rm A}$ large, thick washer used to reinforce a saw blade is called a
- **24.** What type of blade is used on a radial arm saw for safety reasons?
- **26.** _____-tipped tools are capable of very heavy workloads.
- **27.** A carbide CNC bit that has a spiral that cuts/shears toward the tool holder.
- ${f 31.}$ On a saw blade that is used for chip extraction