Please understand these are not complete how to directions. They are notes to remind students of the steps to do these projects. All turning projects have potential safety hazards. It is up to the individual doing the turning to decide what projects are appropriate for her or him to do. If you do any of these projects you are assuming all responsibility for your safety.

Things to keep in mind.
Your dress: Is it safe to be around a turning lathe.
Your hair is out of the way.
Your eyes and face are protected.
Your lathe speed is appropriate.
You are rested and ready to go
Your skills are appropriate for the project you are planning on doing.
Your lathe is in good working order
You checked your wood for splits and cracks to make sure it is safe to turn.

Project: Wide Rim Bowl, Ring Bowl

Purpose

1. Design using golden rule ⅓-⅔ or ⅔ -⅗
2. Intro point tool
3. Options in mounting

Materials

1. Blank of your choosing
2. Tools: Bowl gouge, parting tool, straight edge, four jaw chuck.

Activity

1. Have a plan. There will be opportunities to change it.
2. Design: always keep in mind ⅓-⅔ guideline or ⅖-⅗
3. Mount blank: Smaller pieces I prefer to use a recess hole for mounting usually drilled with a drill press. You may want to mount between centers round and put a tenon on.
4. After mounting on the chuck, round and shape the outside of the bowl be sure to leave plenty of wood on the chuck side to be able to support work on the face.
5. Start the top of the bowl by getting the surface as flat as you can. Check with your straight edge,
6. Optional: I like putting an accent ring about ⅛ inch in for the outside edge.
7. Mark with a pencil where you think you want he bowl placed. ⅓ or ⅖ the diameter of the bowl. This is a very small bowl center.

8. Now cut out the bowl shape with a bowl gouge. Note: this should be done with the bevel rounded to a smaller radius than the bow radius. Less sanding and bruises on the wood.
    a. Optional: place an accent ring around the bowl.
9. Take the bowl out of the chuck and remount to finish turn the bottom of the bow. You can use a faceplate and do a jam chuck. Also you can remount in larger size jaws on the chuck, This is safer. (Consider making wooden jaws)
10. Personal note: I try to finish all work so it is not obvious how the piece was mounted.

Lesson plan for Off center wide rim bowl (ring bowl)

Purpose:

1. Introducing multiple center turning
2. Showing alternative mounting that are safe

This is very similar to the wide rim bowl except there is a second center for the bowl portion. Draw out your idea with a compass so you know where to put the second mount for the bowl. It will surprise you how little that difference is. And it will be different for every size diameter of the outer shape.

Options for second mounting:

1. A second smaller forstner bit hole can be placed inside the first. Be sure the jaws of the chuck can touch the bottom of the hole. This hole may over lake the first one about 20% with no problem. It can also be completely outside the first one.
2. Worm screw mount: this can be placed anywhere you choose as long as it is far enough from the edge it will not split out. It must have at least three threads of the screw in the wood. Make sure it will not protrude into the bottom of the bowl. Be sure to use spacer blocks so the jaws of the chuck ar firmly against the wood.

Follow the instructions for the wide rim bowl.

Caution: Make sure when you mount off center to rotate the piece by hand and it will clear all parts of the lathe.

Bigger caution!!!! Turn down the lathe speed as low as it will go or you may be chasing the lathe to turn it off, or worse!

Lesson Plan for Ball and Cup Toy

Purpose:

1. Introduction to turning project.
2. Safety
3. Tool use

Materials:

1. Wooden drive spur with 1 ¼ inch diameter head
2. Wood blank: 2"x2"x 6 or 7". Dill a hole 1 ¼ inches in diameter in one end 1 1/4/ inches deep. Drill a ⅛" hole in the side so it will go into the bottom of the end hole.
3. Magic markers. Wax, burn wires
4. Tools: spindle roughing gouge, parting tool and spindle detail gouge.

Activity

1. Talk about proper dress, lathe parts. Eye protection, lathe speed.
2. Have student mount blank on wooden drive spur.
3. Discuss ABC of tool
    a. A, Anchor tool on rests
    b. B, have the Bevel touch without the edge cutting
    c. Lift the handle until the tool starts to Cut.

4. Hand position on tool. One hand touching the tool rest, on the side away from the wood, holding the tool down on the tool rest. The other hand holding the tool handle.

5. The roughing spindle gouge flute of the tool is facing 12 o'clock and slides from side to side on the tool rest. Show how each surface of the gouge works. Front middle, left side and right side.

6. Round and form basic shape as described in demo. Thin is not our goal as this is a toy that will be dropped on the floor.

7. Use a parting tool to mark off where the handle will stop so the cup is not cut off.

8. Spindle gouge will be used to make a transition for the cup to the handle and round off the handle end. Note: the flute and tool shaft will be facing the direction of the cut. If going to the right the tool will point to the right and the flute will be facing right. Spindle work will usually be cut from high to low to get the best cut.

9. Burn wires will be used to add artistic design and some marker colors as preferred by the turner.

10. Add a coat of wax melt in with a paper towel while piece is turning.

11. Add ball and string.

Making Wooden Jewelry

Prepared by Joe Ruminski

OVERVIEW & PURPOSE

To learn to make wooden jewelry for fun or profit.

EDUCATION STANDARD

1. Safety, nobody wants to get hurt. Plan to be safe. Safety is not an accident
2. Encouragement is the best way to success for both youth and adults.
3. Design improves after how to is understood.
4. Success is doing better than when you started.

OBJECTIVES

1. Students are to learn safety standards for material handling and equipment.
2. Students are to understand basic process of turning Jewelry
3. Students are encourage to explore creative design and not just copy.

MATERIALS NEEDED

1. Lathe
2. Wood blanks 2” squares ⅜ -½ thick
3. CA glue
4. Chuck with a waste block
5. Double sided tape
6. Sandpaper 120 through 400 grit.
7. Finish of personal choice
8. Double sided tape

ACTIVITY

1. Sand back of blank smooth (400 grit)
2. Add CA glue to the back for sealer
3. Sand back a second time
4. Double sided tape the blank to the waste block
5. Bring up the tailstock with a point protector (golf ball or scrap of wood
6. Lathe speed pretty high turn off the corners
7. Sheer scrape the front to desired shape, start with a gentle convex curve
8. Sand to 320 or 400 and coat with CA glue. Let dry.
9. Repeat step 8
10. Remove blank from waste block. Coat with finish of your choice.
11. Glue on findings

Project. Goblet with multiple colored wood

Purpose

1. Teaching how to hollow with a spindle gouge
2. Morris and tenon joining and measuring.
3. Glueing up parallel joints

Activity

1. Mount up blanks of your choosing (2”x2”x6” for today) between center.
2. Turn round and keep it as large as possible
3. Put a tenon on the headstock end and remount in the chuck
4. Turn the end towards the tailstock as flat as possible and check it with a straight edge.
5. With the spindle gouge make a small indentation in the end on center
6. Now with the spindle gouge parallel to the lathe bed and the point in the center push towards the headstock until it goes in about ½”. Be careful of not pushing against the tool rest and forcing it off center
7. Now you have to decide on your goblet design because you are going to do the hard part first, hollowing the cup. Do not panic it is easier than you think.
8. Start the hollowing with the spindle gouge flute facing the 10:00 position on a clock and slide the point in the hole about ⅛ inch and slowly pull it towards you with your front hand till the opening is about 1 ⅛ “ in diameter.
9. Push the point of the tool into the center again and keep center hole deeper than where you are hollowing. This keeps the bump in the bottom from forming which is hard to remove. Repeat this process until you have the approximate shape of the inside complete.
10. Now glue your top accent wood piece checking to make sure the face of the turning is flat. After the glue is dry round off the newly added wood to the size of the cup. While doing this I do I use the tailstock for support.
11. Once it is round hollow out the center of the accent piece to match the rest of the cup. Now complete the inside of the cup to the desired shape and sand inside only. DO NOT PUT YOUR FINGER INSIDE THE CUP WHILE IT IS TURNING.
12. Now it is time to turn the outside to match the inside starting at the top and working towards the stem. DO NOT PUT YOUR FINGER INSIDE THE CUP WHILE IT IS TURNING. Leave about ¼ inch at the base until the cup is complete including sanding.
13. Make a ⅛- 3/16 tenon on the bottom of the cup and part off the cup.
14. Use the same process to make the base of the goblet with the bottom towards the tail stock. Note before gluing on the accent color to the bottom drill a hole to match the tenon size on the top.
15. Finish the bottom and part it off. Remember there is a hole in the middle as you are parting off.
16. Now mount a pen blank or other piece of wood you want to use for the stem in a chuck. Round, once round drill a hole in the tailstock end, the same size as the tenon on the cup.
17. Shape the stem to the design you want, sand and make a tenon to match the cup tenon.

18. Now glue all three pieces together and finish as you like.

Project Long spindle

Purpose

1. Think and trying something new.
2. Teaches turning small and light touch

Tools and materials: ⅜” dowel, length of your choice, ¾” O.D. Conduit or PVC pipe length determined by you. Brackets and clamps to hold PVC sections. Spindle gouge. Four jaw chuck with pin jaws.

Activity

1. Mount a section of conduit on each side of the headstock in line with the hole in the hole in the spindle. Leave about three inches between the jaws of the chuck and the conduit on the tailstock side.
2. Slide the dowel through the headstock and leave about 2 ½” beyond the jaws. Lightly tighten the jaws to hold the dowel.
3. Turn the first section sand and move the dowel to the right and repeat until finished.
4. Note: Cut with the side of the spindle gouge. If the point is used and it should drop below center it will lift the wood and break it. A sharp tool is an absolute must.

Split Hollow form.

Object:

1. An easy way to make a hollow form.
2. A great way to teach hollowing.
3. Joinery with little measuring

Tools: bowl gouge, spindle gouge, hollowing tools of your choice, spindle roughing gouge. Blank of your choosing.

Activity

1. Mount blank between centers, turn round and put a tenon on each end.
2. Remount blank on the tenon and bring up the tailstock. The top of the blank should be on the headstock side.
3. Shape to the approximate design leaving and extra ⅜” in the shape ⅓ for the top.
4. Using a ⅜” or ½” parting tool make a parting cut ⅜” inches deep,in one cut no side by side cutting. This should be ⅓ of the length from the headstock.
5. Complete the parting cut with a thin parting tool. Used side by side cuts and leave most of the flange on the top side. Do not cut on the edge from the first parting cut.
6. Hollow the top out.
7. Mount the bottom and hollow out to the mark line from the parting cut with the ⅜” parting tool.
8. Glue parts together, place burn rings to hide joint. Drill or turn a hole in the top. Finish sand.
9. Clean up the bottom.
10. Smile, you are done

Project Multi Center Disc

Purpose

1. To teach how to use worm screws safely
2. To have a better understanding of how a chuck holds wood on
3. To encourage planning before one starts a project
4. To support creativity

Materials.

Chuck, worm screw for chuck, ⅜” drill bit, 2 ⅛ “ forstner bit, Drill, drill press preferred, Bowl gouge, Point tool. Blank of your choosing. It is easiest with one at least 1” thick. Diameter is determined by the swing of the lathe.

The activity directions have been left out on purpose. I can not put into a written form all that needs to be considered in order to assure safety. Many points need to be seen for better comprehension of what is being done. The project is not that hard once you see what is expected and understand how it is done. I would be very upset if someone read the guideline, tried it, and got hurt because not having enough information.

For those taking the hands on class I have had over 150 students complete this project and none of them have been hurt in the process. I plan to keep it that way.