*The Jewelry Box Project*

**To hand in:**

* Carving design sketches (3 or more) 10 marks
* Detailed carving drawing 20 marks
* Cutting plan 10 marks
* Completed project 60 marks

**Breakdown of project mark:**

* Overall appearance 10 marks
* Corner joinery fit 10 marks
* Squareness of the body 10 marks
* Carving shows care and effort 10 marks
* Finishing of all surfaces 10 marks
* Hinge and latch function and appearance 10 marks

**Total = 100 marks**

**Finished dimensions:**

* Base 11-1/8” X 7-1/8”
* Lid   10-5/8” X 6-5/8”
* Body 10” wide X 6” deep X 3-1/2” tall
* Finish all pieces to 5/8” thick

*Project Procedure*

**Carving design sketches and detailed drawing**

Step 1 – Determine the dimensions of the box lid (you can carve on the top and/or the underside)

Step 2 – Draw 3 or more sketches of ideas for the carving designs

Step 3 – Decide on a design and draw it to scale

Step 4 – Mark the drawing with how you are going to carve it (Which tool for each cut? How deep will

you carve?)

*Show carving design drawing to your teacher for review and have it signed if completed correctly*

**Cutting plan**

Draw a plan for how you are going to do **stock breakout**. Things to consider:

* What are the dimensions of the lumber you are using? (alder for body, cedar for base & lid)
* What are the dimensions of the pieces will you need for your project?
* Will all your pieces be long enough for the planer?
* The base and lid will be made as laminations – what width will the laminated pieces be?
* Where will your miter cuts for the body be?

*Show cutting plans to your teacher for review and have it signed if completed correctly*

**Begin Stock breakout**

Step 1 – Rough cut to length on the radial arm saw

Step 2 – Joint face and mark on each piece

Step 3 – Joint edge and mark it on each piece

Step 4 – Plane to maximum thickness (remove only enough material to make the second face flat)

Step 5 – Rip to 1/16” greater than final width on the table saw and then joint to final width

*Label each piece with your name and what part it will be used for (base/lid, body)*

**Laminate the base and lid**

* Thetotal rough width for must be roughly 8” wide and 23” long
* Label with your name
* Mark the direction of end grain
* Set-up pieces of wood so end grains run in opposite directions
* Pre-clamp boards and check measurement (8” wide and 23” long). Now show your teacher
* Once you have permission, glue boards together for lid and base.

*Put your name date and the time you glued on the face*

**When the base and lid are dried**

* Scrape off all excess glue
* Plane all your pieces to 5/8 of an inch thick (plane all your pieces at the same time)
* Cut base and lid to final dimensions (base: 11-1/8” X 7-1/8”, lid: 10-5/8” X 6-5/8”)
* Use router to create a decorative profile to edges of all pieces – always route ends of boards first to prevent tear-out
* You can carve on the base and/or lid any time before applying the finish

*Put your name on both ends of your boards*

**Prepare the body**

* Layout for the sides and ends
* Draw where the 45-degree miter cuts will be
* Cut to length on the table saw (with blade at 45-degrees for the miter cuts)

*Check layout and table saw setup with teacher*

**Assemble the body**

Step 1 – Tape the inside surfaces where glue is likely to be squeezed onto

Step 2 – Assemble and glue the ends and sides in a box form **– make sure your box is square**

Step 4 – Use the splined miter jig to cut the spline slots – there should be 2 splines the lower part of the

box and one in the lid part

Step 5 – Install splines by applying glue and gently tapping in

Step 6 – Cut-off excess splines with band saw and sand splines flat

Step 7 -  Sand body starting with 80 grit, then 150, 220, and final 360 grit (Do not sand the edges)

Step 8 – Cut the Body on table saw with the sled into two pieces; an upper piece and a lower piece

Step 9 – Sand the cut surfaces until they rest perfectly flat on each other

*Check table saw setup with teacher*

**Glue Body to Base and Lid**

Step 1 – Locate then lightly pencil mark the placement of all 4 corners of the Body on the Lid

Step 2 – Hammer four finishing nails close to the corners & into the underside of the Lid where body will

attach

Step 3 – Cut heads off nails so they are sticking up about 3/16th of an inch

Step 4 – Put a small amount of glue on nails and the Lid where the body will attach

Step 5 – Align and then press the Body to the Lid

Step 6 – Remove excess glue

Step 7 – Locate then lightly pencil mark the placement of all four corners of the Body on the Base

Step 8 – Hammer four nails close to the corners & into top of the Base where the body will attach

Step 9 – Cut heads off nails so they are sticking up about 3/16th of an inch

Step 10 – Put a small amount of glue on nails and the Base where the body will attach

Step 11 – Align and then press the Body to the Base

Step 12 – Remove excess glue

**Staining** **(finishing)**

Apply 3 clear-coats of Varathane or Watco. Follow application instructions written on the can.

**Attaching Hinges and Clasp**

Hinges:

Step 1 – Pick out type of hinges to be used and identify how far away from each side the will be placed

Step 2 – Place hinge on back of the box marking the lower holes only **using a sharp pencil** and punch

Step 3 – Repeat for second hinge

Step 4 – Drill holes

Step 5 – Using screws provided attach hinges to the lower piece

Step 6 – Closing the top and bottom, place a piece of paper between bottom and top of box at the back

Step 7 – Place hinge on back side of the upper piece and **mark holes with a sharp pencil** and punch

Step 8 – Repeat for second hinge

Step 9 – Drill holes

Step 10 – Using screws provided attach hinges to the upper side.  Hinges are now complete.

Clasp:

Step 1 – Identify the front center of your box and draw a light center line to upper and lower section

Step 2 – Located the upper section of hasp (ensuring the lower section will fit and function correctly)

Step 3 – Mark holes for upper section with a sharp pencil and punch then drill holes

Step 4 – Using screws provided attach upper section of clasp

Step 5 – Align lower section of clasp

Step 6 – Mark holes for lower section with a sharp pencil and punch then drill holes

Step 7 – Using screws provided attach clasp then check to ensure they function correctly

Your project is now complete!

Submit your work to your teacher:

* Carving design sketches (3 or more)
* Detailed carving drawing
* Cutting plan
* Completed project