

# Intarsia



## Student Guide

**Intarsia:** (IN - TAR' - SHA) is an art form that been around since the 15<sup>th</sup> century.

## Before you begin...

Before you begin any woodworking project, it is essential that you:

- ✓ Review the safety procedures and operating instructions with your teacher for each power tool that you will be using;
- ✓ DO NOT use any tool without letting your teacher know when you are ready to begin;
- ✓ Make sure you have and USE the correct personal safety equipment;
- ✓ Carefully read all of the instructions so that you have an overview of what you will be doing during the project.

## Instructions

1. **Safety**: You need a safety lesson on each piece of equipment before using it. Here is a summary.
  - a. **Planner** - Never put your fingers in to push a board along. Take small cuts (1/16" or 2mm)
  - b. **Bandsaw** - Plan your cuts and use relief cuts. DO NOT attempt to back up and re-saw as this may cause the blade to come off the wheels. Fingers are never in front of the blade, only off to the side or back. Use a push stick.
  - c. **Scroll Saw** - keep wood tight to the table. Use a push stick for small pieces
  - d. **Drill Press** - secure your work to the table. Make sure long hair, jewelry, and loose clothing are secured.

## 2. Getting Started:

- Plane the 1" X 10" pine board down to  $\frac{1}{2}$ " or 13 mm by taking  $\frac{1}{16}$ " or 2mm off on each pass. (The less knots the better)

## 3. Backing Board:

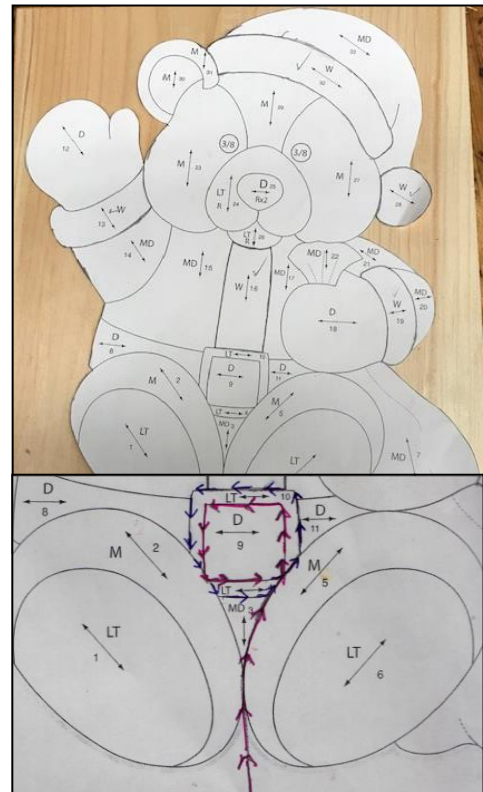
- Trim the outer edge of the pattern
- Trace the backing template on a piece of Miranti board (place it in the best place to not waste wood).



- Using the bandsaw cut out the pattern (stay inside the lines  $\frac{1}{8}$ " or 3 mm because we want it smaller so it is hidden).
- Sand off the burrs with the 120-grit sandpaper and finish with the 220-grit sandpaper.
- Using a black marker, color only the edges of the backing board.

## 4. Pattern Pieces:

- Stick the pattern template (that you already trimmed the edges) on the 1" X 10" pine board with glue stick.
- Use a  $\frac{3}{8}$ " twist bit (drill bit) to drill out the two eyes
- There is one difficult (small) piece that needs to be cut first. (see illustration)
- Cut the pattern out one piece at a time on a scroll saw.



## 5. Finish:

- a. **Sanding:** Use coarse, and then the fine sandpapers, to round each interior edge down to about a 1/8" radius. Exterior edges can be rounded more if desired. The exposed, outside sides must be sanded smooth.
- b. **"Dry Fit"** your pieces together on another pattern template and sand ends that will help pieces fit together better and tighter. **Show the teacher before going further!**
- c. **Painting:** divide your pieces into 5 groups based on the colors.
  - i. Spray paint the Red and White groups using proper ventilation.
  - ii. Use a tiny brush to stain the other three colors

### Colors:

D - Dark Walnut

M - Maple

MD - Red

Lt - Oak

W - White



Use a backing board for the Red and White groups of pieces



- d. Cut your two spacers using  $\frac{1}{4}$ " plywood. (see pattern template)  
**Safety: These are small pieces so use a push stick!**

## 6. Gluing:

- a. Check...
  - i. Did you put two coats of finish on all pieces?
  - ii. Are the outside edges completely stained?
  - iii. Is the paint/stain dry?
- b. Rough up the Maranti backboard with some 60 grit sandpaper so the glue sticks well
- c. Cover the backboard with glue and spread it around with a glue brush so all areas are covered. (Make sure you are working on a sacrificial piece of plywood)
- d. Start at the top of the design putting pieces on the board. A little extra glue on the bottom of the edges would be a good idea. Make sure each piece is manipulated to fit as tight as possible.
- e. Don't forget the two spacers in the nose when you come to that area.



## 7. Finishing Touches:

- a. Spray the finished project with two coats of polyurethane finish. Let dry between coats.
- b. Attach a sawtooth hanger centered near the top on the back of your project. (hold the nails in place with pliers while tapping them in gently with the hammer)



**Congratulations on your finished Intarsia project!**

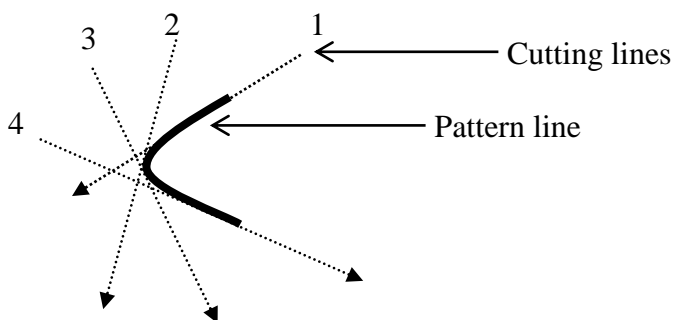


## Appendix: Bandsaw Safety Review

- ✓ **ALWAYS** wear safety glasses and use the dust collection system
- ✓ **ALWAYS** adjust the blade guard to about 4mm or 1/8" higher than the thickness of the wood.
- ✓ **ALWAYS** make sure the blade is completely stopped before putting your fingers near it and/or before removing the wood.
- ✓ **ALWAYS** plan each cut before you start the saw. Make relief cuts, especially near turns.
- ✓ **NEVER** force the wood through the blade and use a push stick to keep fingers away. (Forcing may mean you have a dull blade that needs replaced)
- ✓ **NEVER** try to back out a moving blade from a piece of wood. If you must back up, turn off the saw, wait for the blade to stop completely, and back the wood off the blade carefully.
- ✓ **NEVER** attempt curves or turns that are too tight. If you must cut a piece with a tight turn, you will probably have to do it with a few cuts and smooth the curve afterwards with sandpaper.



For example:



## **For this project, you will need:**

- Bandsaw with 1/8" blade
- 220 grit (fine) sandpaper
- 120 grit (coarse) sandpaper
- Glue stick
- 1/2" clear pine board (10" width), board size depends on pattern size
- Miranti board or 1/8", and 1/4" plywood
- Wood glue
- Sawtooth hanger with nails
- Selection of stains for contrasting colors (dark, medium and light colors) and Polyurethane clear coat finish

### **Enrichment Option:**

There are two different methods of using wood for intarsia projects: the traditional method and the single board method.

- The traditional method uses different species of wood for individual pieces (pine, cedar, basswood, mahogany, etc) in contrasting colors, varying grain directions for special effects, and different thickness for a 3-D effect.
- The single board method, which you will be using in this module, is much easier. The pattern template is glued on to a single board and cut out. Individual pieces are cut loose and stained in contrasting shades. The wood grain direction and thickness is the same for all pieces.

**If you are an advanced user, try the "Traditional Method" to enhance your project.**