# Carpentry NTQF Level II

# Learning Guide #50

**Unit of Competence:** Install Lining, Paneling and Molding

**Module Title:** Install Lining, Paneling and Molding

**LG Code:** **EIS CRP2 M12 LO3-LG-50**

**TTLM Code:** **EIS CRP2 M12 TTLM 0919v1**

## LO: 3 Install lining/paneling

| Instruction Sheet | Learning Guide #48 |
|---|---|

This learning guide is developed to provide you the necessary information regarding the following content coverage and topics.

- marking , cutting, fitting and positioning lining material
- Securing and fixing Paneling/lining.
- Installing Paneling/lining to plumb, level and a uniform plane.
- Determining  Starting position of first panel
- Cutting Paneling to fit size of wall and roof.
- Fixing Abutting joints of paneling.
- cutting, fitting and fixing Paneling

This guide will also assist you to attain the learning outcome stated in the cover page. Specifically, upon completion of this Learning Guide, you will be able to –

- marking , cutting, fitting and positioning lining material
- Securing and fixing Paneling/lining..
- Installing Paneling/lining to plumb, level and a uniform plane.
- Determining  Starting position of first panel
- Cutting Paneling to fit size of wall and roof.
- Fixing Abutting joints of paneling.
- cutting, fitting and fixing Paneling

## Learning instruction

- ✓ Read the specific objectives of this Learning Guide.
- ✓ Read the information written in the “Information Sheets 1”. Try to understand and familiarize what are being shown and discussed. Ask your teacher for assistance if you have hard time understanding them.
- ✓ Accomplished and submit “Self-checks 1” for evaluation.
- ✓ If you earned a satisfactory evaluation for "self-check 1" then proceed to “Operation Sheet 1”. However, if your rating is unsatisfactory, see your teacher for further instructions or go back to Information Sheet 1.
- ✓ Read the “Operation Sheet 1” and try to understand the procedures discussed.
- ✓ Accomplish and submit “Operation Sheet 1” for evaluation.
- ✓ If you earned a satisfactory evaluation for one "Operation Sheet 1" then proceed to the next “Information Sheet”. However, if your rating is unsatisfactory, see your teacher for further instructions or go back to Operation Sheet where you get unsatisfactory evaluation.
- ✓ Continue to the next “Information Sheet” and follow instruction for learning activities
- ✓ After all “Self Check” and “Operation Sheet” is accomplished and evaluated proceed to “LAP Test”.

- ➢ Your teacher will evaluate your output either satisfactory or unsatisfactory. If unsatisfactory, your teacher shall advice you on additional work. But if satisfactory you can proceed to the next topic.

| | |
|---|---|
| **Information Sheet 10** | marking , cutting, fitting and positioning lining material |

## 10.1 marking, cutting, fitting and positioning lining material

- ✓ Marking is a vital point in woodworking project. The most common woodworking marking tools are pencil, gauge, scriber, marking knives, awl etc. They are used for doing anything such as cutting, shaping, drilling to a piece of wood.

A marking table (marking-off table) is used as a reference. surface for marking on work-pieces. Marking off Table Parts. Marking tables are of rigid construction with accurately finished top surfaces. The edges are also finished at right angles to the top surface.

Marking out is a means of transferring shapes and lines onto material to provide a guide for cutting, bending, shaping and various other processes. Accurate marking out and measuring are important in ensuring materials will fit together properly.

**Paneling** (or **paneling** in the U.S.) is a millwork wall covering constructed from rigid or semi-rigid components. These are traditionally interlocking wood, but could be plastic or other materials.

Paneling was developed in antiquity to make rooms in stone buildings more comfortable. The panels served to insulate the room from the cold stone. In more modern buildings, such paneling is often installed for decorative purposes. Paneling, such as wainscoting and busier in particular, may be extremely ornate and is particularly associated with seventeenth and eighteenth century interior design, Victorian architecture in Britain, and its international contemporaries.

✓Fitting and positioning lining material


**Figure 1 fitting**

**Figure 2 marking**

## Marking

✓ What are the different levels of carpentry?

**Some of the different types of carpenter include:**

- Rough carpenter: Framing, formwork, roofing and other structural work.
- Joister: Lays floor joists onto which a floor surface is fixed.
- Trim carpenter: Specializes in mouldings and trims, such as mantles, skirting boards), and other ornamental work.

| Self-Check -1 | Written Test |
|---|---|

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. ---------is a vital point in woodworking project.
   A. Painting
   B. Finishing
   C. Marking
   D. None

2. What is paneling?

***Note:*** **Satisfactory above – 4 out of 8 points Unsatisfactory - below 4 out of 8 point**

| Information Sheet 11 | Securing and fixing Paneling/lining |
|---|---|

## 11.1 Securing and fixing Paneling/lining

- ✓ Securing is get **something**. to obtain or achieve **something**, especially when this **means** using a lot of effort **secure something** to **secure** a contract/deal The team managed to **secure** a place in the finals.

**Figure 3 the way of securing**

**Figure 4 fixing**

# ✓ Fixing

### Fixings – The Complete Guide to All the Different Types of Fixings

- Expanded metal lathe and galvanized strip. ...
- Different types of **fixings**. ...
- Variety of nails. ...
- Wall plugs. ...
- Screw head caps. ...
- Larger **fixings**. ...
- Polyester Resin **Fixing**. ...
- Plastic spring toggle, hollow wall anchor and holow wall plug plasterboard **fixings**.

### Fixings and fasteners: nails and screws

1. Fixing is the act of holding and securing an object in place (sometimes called the fixing method); and.
2. Fastener is the holding down and securing connectors used for fixing (sometimes called the fixing device).

## ✓ Finish Carpentry Fixings

### ✓ The nails and screws I use for trim carpentry jobs

This is my **finish carpentry fixings** tray. It contains everything I need for fixing skirting, architraves, stair spindles, hanging doors and all the other trim carpentry jobs I do.

Apart from screws, plugs and nails there is an assortment of hinges, magnetic catches, spare handle spindles and I also keep spare longer bolts for small cupboard door knobs because often the ones supplied are too short.

Using the right nails or screws and plenty of wood glue is essential in order to get the best finish.

As a general rule, screws and nails should be at least three times as long as the material being fixed is thick. So, for 20mm thick timber use 60-70mm screws or nails, unless they would go through and come out the other side of what you are fixing the material to!

Wherever possible I use secret fixings or at least give thought not just to how best to get a fixing but to disguise it or place it in the least noticeable position.

I also have in the kit a tin of wood stopping for whichever timber i'm using, like pine, oak or mahogany for example. To go with that I've got 2 different grades of sandpaper in my kit, grade 80 and 120 grit.

### ✓ Finish carpentry fixings - nails

Finish carpentry nails have small heads that can be punched under the surface with little risk of splitting the work piece so filler can be applied afterwards. If nailing close to the end of the timber, put the head of the nail to the floor and hit the sharp end with a hammer to blunt it a bit. This makes the nail punch a hole through instead of separating the wood fibers and reduces the chance of splitting. If in doubt, drill a pilot hole slightly smaller than the nail instead.

- **75mm lost head nails**

These are the best nails for fixing skirting board to stud work interior walls. Sometimes you can get away with fixing into masonry with them but generally, when fixing to brick or block-work skirting boards need to be screwed

- **40mm oval nails**

Ovals are the best nails for architraves if you don't have a finish nail-gun. Sometimes I only want to pin the architrave on temporarily and they are perfect for that too. They can also be used for pinning miters together on large moldings.

- **20 and 40mm panel pins**

The best nails for pinning skirting miters together are 20 or 40mm panel pins, depending on the size of the skirting board. These pins are also great for small beads and moldings like quadrant or Scotia for example.

- **20mm Veneer pins**

Whenever a panel pin could risk splitting a small molding, like when fixing a mitre for example - veneer pins are usually thin enough to do the job without splitting the work-piece.

- **Nail-gun brads, 38 and 50mm**

My nail-gun is pretty much indispensable for finish carpentry as it saves time not only nailing but punching them in too. The 38 and 50mm brands are the best size nails for architraves, spindles/spacers, holding things in place till the glue goes off like small bits of skirting that a nail/screw could split.

**Finish Carpentry fixings - Screws**

When a nail won't hold you've got to screw it. Just like with nails I try to hide screws and use pellets to fill over them wherever possible. It's almost always necessary to pilot drill and countersink before winding any screws into trim carpentry mouldings. All the screws I use are Pozi-drive.

- 100**, 70, 60, 50mm <u>Turbo Gold Screws</u>**

This is the range of larger screws I use for fixing things like battens to walls, skirting boards to masonry and stud-work, Newel posts or half newels to walls, door linings etc.

- 45**, 35, 25mm Turbo Gold screws**

These shorter screws are good for most 75mm hinges. Whilst fire rated hinges tend to be supplied with matching screws in chrome or brass, as well as latches and other types of ironmongery these screws work fine in rare cases that they don't. They are also fine when re-using old furniture on new doors for example, I generally tend to replace old screws with new because they'll last longer and are less likely to snap causing big problems!

- 15mm **screws**

These screws are used for small ironmongery, such as door bolts and hanging rail brackets

## Finish carpentry fixings - Rawl Plugs and Cavity fixings

For fixing to masonry I carry red and brown plugs. The best way of fixing to plasterboard I've found is to use 50mm Redi Drivers (for heavy/secure loads) or Fischer plasterboard plugs.

## Screw diggers, Wooden pellets, Plug cutters and Wood Filler

When finishing things like staircases and other large joinery I
often drill pilot holes and use a plug cutter to cut a wooden pellet instead of filling the hole with wood filler.

Disguising Finish carpentry fixings is essential. Although smaller pin holes can be unnoticeable when filled with wood filler larger screws when filled stand out and completely ruin the look of the work-piece.

Wooden pellets however when placed with a bit of thought look like they are supposed to be there and can even become a decorative feature of the piece. For the best job, again use a on an off-cut of the material you are filling, lining up and matching the grain as closely as possible.

- ✓ paneling - a panel or section of panels in a wall or door
    - paneling, pane
    - exterior door, outside door - a doorway that allows entrance to or exit from a building
    - panel sheet that forms a distinct (usually flat and rectangular) section or com ponent of something
    - sliding door - a door that opens by sliding instead of swinging
    - swing door, swinging door - a door that swings on a double hinge; opens in either direction
    - wall - an architectural partition with a height and length greater than its thick ness; used to divide or enclose an area or to support another structure; "the south wall had a small window"; "the walls were covered with pict ures"
    - wall panel - paneling that forms part of a wall

| Self-Check -2 | Written Test |
|---|---|

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. What is the purpose of fixing?
2. Write the different types of fixing?

***Note:*** **Satisfactory above – 4 out of 8 points Unsatisfactory - below 4 out of 8 point**

| Information Sheet 12 | Installing Paneling/lining to plumb, level and a uniform plane. |
|---|---|

## 12.1 How to Install Wood Paneling

Supplies and Tools Needed For Most Installations

| | | |
|---|---|---|
| Tape Measure | Putty Sticks & Wood Filler | Level |
| Adhesive | Caulk & Caulking Gun | Hammer |
| Crayon or Lipstick | Finishing/Paneling Nails | Screwdriver |
| Jig Saw | 2-inch Foam Brush | Shims |
| Pencil | Drill | Stain or Paint |

***Tips*** ... Be sure to wear safety glasses and ear protection while working on your project. While cutting and creating wood dust, wear a dust mask. For your protection

and that of anyone near your work area, always think about what you are going to do before you take action.
Installing paneling is a lot like hanging wall paper. You will start at a corner of the wall and work your way around.
Estimate the number of panels needed by measuring the room circumference in feet and dividing by four. Cutouts for large openings (such as windows and doors) can often be used to panel small areas, such as above a window. Check the existing wall condition. You may apply panels with adhesive directly to surfaces that are level, sound and clean. Nail directly into the studs when installing your paneling over existing paneling, wallpapered walls or surfaces which will not support adhesive. Sand down any protrusions in the wall for a smooth fit.
There may be a need for some preparation. If one of the walls you are paneling has a doorway, remove the trim around the door by prying it off. Also pry off the baseboard from the walls you will panel.
5.2mm (1/4") thick plywood paneling can be nailed directly to the studs to satisfy the code requirements. While not a code, we recommend using a vapor barrier between the studs and the plywood paneling if there is spray foam insulation, since it adds another element of protection and preventative measures always cost less than repairs. Spray foam insulation may contain some liquids or moisture that over time potentially could damage wood or promote the growth of mold.

If your walls are not plumb, add furring strips to create a level, grid-like surface. These steps will also provide additional rigidity to your wall. Use either 1" x 2" or 1" x 4" kiln-dried lumber of 1/2" plywood strips cut 2" wide. Starting at the top, space strips horizontally 16" apart, using shims to line them up for the true vertical plumb. Add a strip at the base. Starting in the corner, place vertical strips every four feet between your horizontal furring.

Before you begin condition (acclimate) your panels to the room. With all panels in the interior space where they will be installed, stand them individually along the long edge or lay them flat with wood sticks spaced between them so that air circulates around each panel. Let stand for at least 24 hours if installation is above grade and at least 48 hours if installation is below grade level. For all below grade applications, always use a vapor barrier between the outside walls and the studs. Remove all trim. Turn off the electricity before removing all receptacle covers. Once the panels have been

acclimated to the room, place your paneling around the room in an attractive arrangement of grain, pattern or color. Previewing this way is especially important when you use panels with a definite direction in the pattern. Once you have a good aesthetic sequence, number the back of the panels in the order in which they will be attached to the wall.

- ✓ **To better hide joints between panels**

Use a 2-inch foam brush to stain or paint the wall surfaces at the point where your panels will be joined, using a color which matches the edges or grooves of your panels. This will make the joints less noticeable. You will need to protect the floor from stain or paint.

- ✓ **To locate switch and outlet hole locations**

Double-check all measurements before cutting panels. Start your installation in the corner that you see first when entering the room. To cut around openings like electrical switches or outlets, turn off the power at the main panel and then remove the cover plate to the switch or outlet. You can wipe lipstick or a crayon around the rim of the box and then press the panel into place to dry fit the panel. As the panel makes contact with the box, an outline will be left on the panel from the lipstick or crayon. Place the face of the panel down and use a jigsaw to cut around the outline. Make sure that the panel opening is resting on the wall and not on the lip of the box. The cover plate will cover any gaps between the box and the opening in the panel.

✓ **To attach the paneling to the wall**

Secure the paneling to the wall with panel adhesive and finishing nails. Load a caulking gun with a tube of panel adhesive and apply a small dab of it on the wall about every 10 inches. Place the panel on the wall and press it into the adhesive. Pull the panel away from the wall and let the adhesive become tacky. Push the panel back on the wall and roll the panel with a rolling pin. This will make sure that the panel and the adhesive make good contact.

Finally, drive finishing nails into place at the top of the panel. Apply baseboard to hold the bottom in place. Follow the same procedure to hold the adjoining sheet of paneling, but make sure this is a small gap between the two sheets to allow for movement during seasonal changes (use a dime as a guide). The stain you placed on the wall will help hide the gap.

Colored putty sticks of wood filler can be used to fill in any holes or blemishes on the paneling. Install remaining molding and door trim.

**Figure 5 install paneling on the wall**

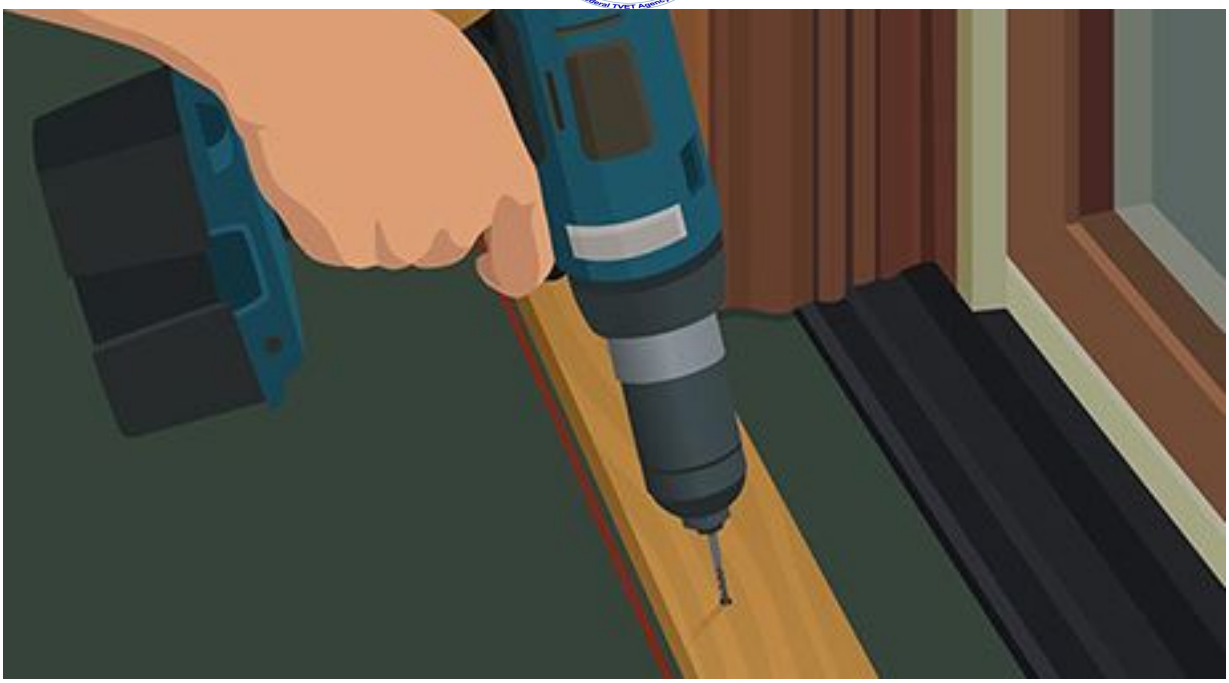


**Figure 6 drilling the wall paneling**

- A *plane* is an indispensable tool for smoothing and shaping wood. Planes are used to "shave" thin, uniform strips from a piece of wood, creating a smooth, level surface by removing "high spots." Knowing how to plane wood is a vital skill for all woodworkers.

Method 1

## Planning With a Hand Plane

**Choose the appropriate hand plane for your job.** Hand planes come in several different varieties. The main defining characteristic of each type of hand plane is size. The longer the body of a plane, the more accurately it will straighten wood, as the length of the body allows the plane to bridge peaks and troughs in the wood's surface. Shorter planes, however, are often easier to control for precise detail work.[2] Below are a few of the most common types of hand plane you'll encounter, listed from longest to shortest:

- A **jointer plane** typically has a body length of 22 inches (56 cm) or longer. These long hand planes are useful for trimming or straightening long pieces of wood, like boards or doors.
- A **jack plane** is slightly shorter than a jointer plane, with a length from 12 to 17 inches (30 to 43 cm). It is more versatile than the jointer plane because of its shorter length and thus can be used to square both long boards and shorter pieces of rough lumber.
- A **smoothing plane** is about 10 inches (25 cm) long and is the most versatile of all hand planes. It can be used for general smoothing and straightening of all projects.
- A **block plane** is the smallest type of plane. This type of plane is too short to effectively straighten long boards, but is ideal for shaving very thin pieces from a surface or working in a tight corner.

**Sharpen the blade of the plane.** The blade (also called the iron) of the plane needs to be razor sharp before use - even new planes should be sharpened. To sharpen the blade, first place a piece of 220-grit wet/dry sandpaper on a flat surface. Hold the blade at a 25 or 30 degree angle so that the bevel is flat against the sandpaper. Maintaining this angle, rub the blade around the sandpaper in a circle while applying downward pressure. When a burr (an accumulation of metal shavings) forms along its back, the blade is ready to use. Remove the burr by wiping the back of the blade flat across the sandpaper.

✓ **Adjust the angle of the blade.** When it comes to planing wood, the angle of the blade dictates how "thick" the shavings you'll take from the surface of the wood will be. If the blade angle is too deep, you can end up jamming the plane or tearing your wood. To adjust the blade angle, turn the depth adjustment wheel, which is the small wheel just behind the blade assembly. Adjust the blade's angle until the tip of the blade protrudes just below the sole of the plane.[3]

- It's good policy to start by using a shallow angle, then increasing the depth of the cut if necessary.

- ✓ **Plane the surface of the wood.** Begin smoothing and flattening your wood by placing the plane at the edge of the surface. As you apply downward pressure on the front knob and press forward with the back handle, push the plane across the surface in a smooth, continuous motion. Work across the surface of your wood methodically, making sure to pay extra attention to any high spots or uneven spots on the surface of the wood.
    - A level or straight edge can help you find uneven spots in your wood.

- ✓ **Avoid tear-out by cutting along the grain of the wood.** To smooth the surface of the board, you may find that you need to plane in multiple directions. However, always avoid planning directly against the grain. Doing so can cause the blade to "catch" under minute, angled imperfections in the surface of the wood. When this happens, the plane can *tear* small, rough chunks from the wood's surface, rather than *shaving* the surface uniformly. This is called "tear-out".
    - To fix tear-out, try re-planning the jagged spot along the grain of the wood or sanding it smooth.

**Check the accuracy of your planning.** Ideally, after you plane your wood, you'll have a smooth, flat surface that sits flush with any adjacent pieces of wood. Check your wood's flatness and smoothness by laying a straight edge along its surface. The straight edge should sit flush against the face of the wood regardless of its position. If, in any position, your straight edge sits on the wood in a way that leaves gaps underneath it, you'll know that the section of the wood your straight edge is making contact with is a high spot.

- A try square can be used to check the angle between two adjacent faces of the wood to ensure they sit at a perfect ninety degree angle.

Method2

## Planning with a Mechanical Surface Planer

1.

- ✓ **Note that surface planers generally require pieces of wood with one flat surface.** Surface planers are mechanical tools that use rollers and an adjustable set of spinning blades to plane a piece of wood to a uniform thickness automatically. Surface planers are a great time-saving tool for experienced woodworkers, but it's important to know that many surface planers only plane the surface of a piece of wood *relative to the opposite surface*. In other words, if the bottom of the wood isn't perfectly flat, the planer will *maintain* this imperfection on the top surface. Because of this, you'll want to use your planer for smoothing wood surfaces only if the flatness of the opposite surface is assured.

- ✓ **Set the planer to your desired thickness.** All surface planers will somehow allow you to adjust how "deep" the wood will be planed. Often, this is via a hand-operated crank that lifts the planer's housing - the higher the housing, the shallower the planer will cut. As with a hand planer, it's wise to initially make shallow cuts. You can always cut more deeply, but you can't "undue" what you've already cut.
    - Often, the "depth" of the cut itself isn't displayed on the planer, but the actual thickness that the wood is being *planed to*. Thus, to plane a 2 inch thick piece of wood by 1/16 inch, you would set the planer to 1 15/16 inch and so on.
    - Note that most planers shouldn't be set to plane off more than 1/16 or 1/8 inch at a time - doing so is hard on both the wood and the planer.

- ✓ **Optionally, set the depth stop.** Many planers offer the capability to "lock" the planer from cutting beneath a certain depth via a mechanism called a depth stop.

For instance, if the depth stop is set to 1 inch, the planer will not be able to plane the wood to a thickness less than 1 inch. This is a useful feature to have if you're worried about accidentally over-planning.

- If you don't want to use the depth stop, set it to a very low level - one much lower than the thickness of your board - so that you'll never hit this lower limit.

✓ **Turn the planer on and pass your wood through.** When your planer is running, carefully feed the wood into the planer in a straight, controlled motion. After the wood is caught by the rollers, it should begin to feed through on its own. Keep in mind that, *as with a hand plane, you'll want your planer to cut along the grain of your wood to prevent tear-out*. Repeat the planning process as needed until your wood is a desired level of thickness.

- You can track your wood's process by scribbling lightly on the surface to be planed with a pencil before planning. As your planer removes high spots in the wood, you'll see the lines of your pencil begin to disappear.

- ✓ **Pull up on the wood as it passes the rollers to avoid snipe.** "Snipe" is a condition that surface planers can sometimes produce on a piece of wood. Essentially, the planer's rollers pull upward on the wood, causing slightly deeper cuts at the edges of the wood than in the middle. To counteract this, pull up on the end of your wood as it passes through both the front and back rollers of the planer. In other words, pull up on the "back" end of your wood as you feed it *into* the machine, then pull up on the "front" end of the wood as it passes *out* of the machine.
- ✓ **Use ear, eye, and/or mouth protection as needed.** Usually, mechanical planers are very loud. Prevent damage to your ears by wearing appropriate ear protection, like ear plugs or earmuffs. Additionally, planers produce lots of airborne dust, so if you don't have equipment in place to vacuum up the dust as it's being created (like a dust collector), you'll want to use eye protection and a surgical mask to protect yourself.

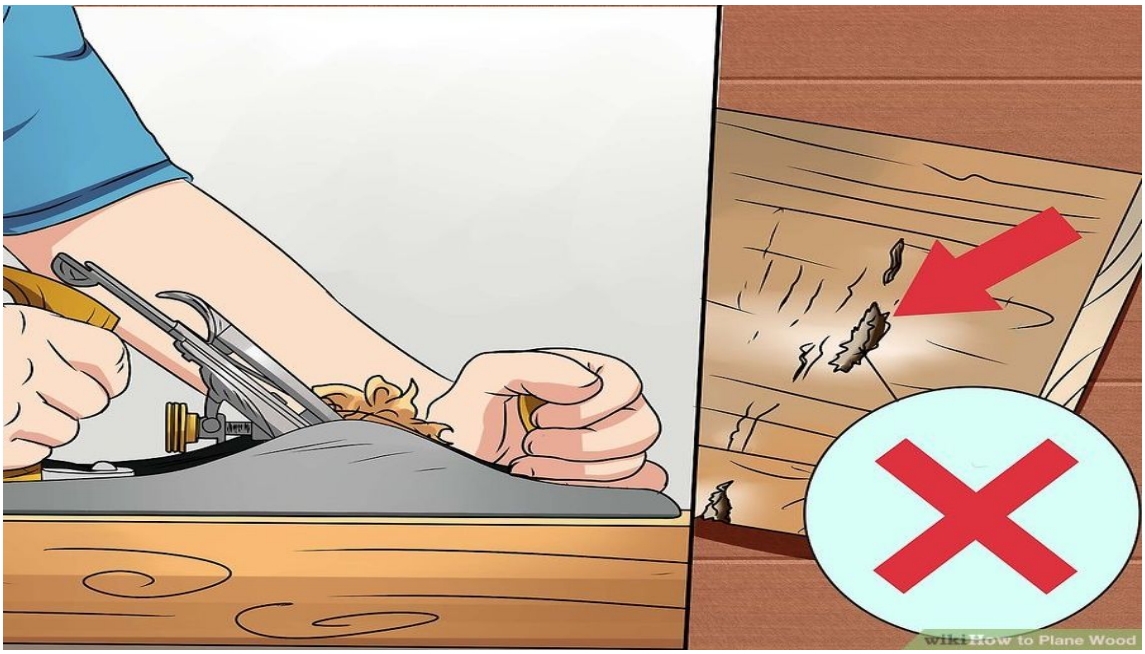



**Figure 7 planning**

| Self-Check -3 | Written Test |
|---|---|

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**Multiple choices**

3. ----------is an indispensable tool for smoothing and shaping wood.

   A. Router
   B. Saw
   C. Plane
   D. All

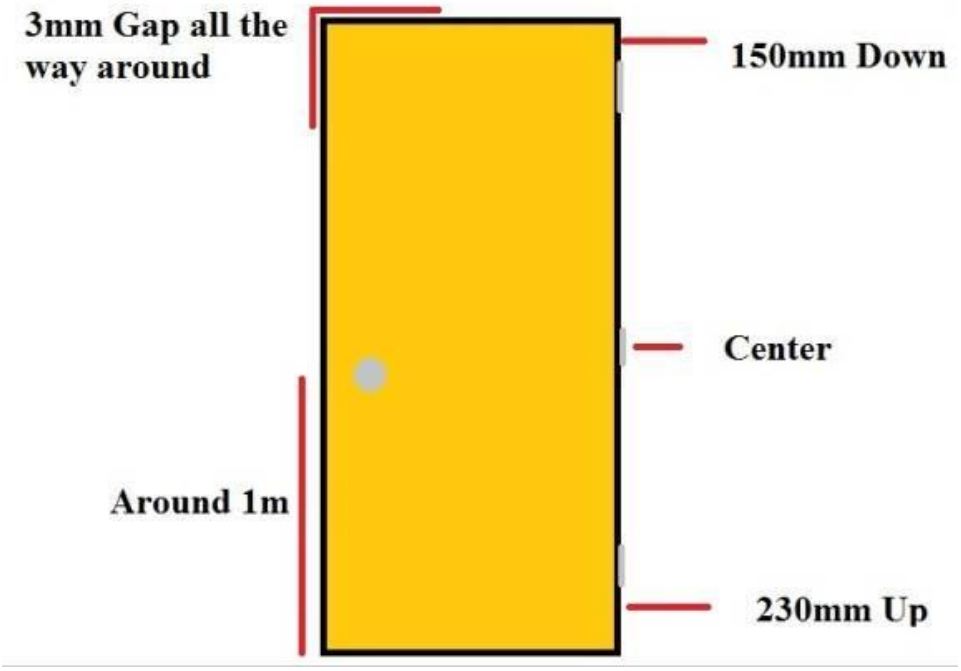
4. Which one of following is the smallest type of plane?
   A. Block plane
   B. Jack plane
   C. Jointer plane
   D. None

***Note:*** **Satisfactory above – 4 out of 8 points Unsatisfactory - below 4 out of 8 point**

| Information Sheet 13 | Determining Starting position of first panel |
|---|---|

## 13.1 position of first panel

- ✓ **Carpenters must be comfortable operating, maintaining, and occasionally repairing these types of tools.**
  - Power Tools.
  - Hand Tools.
  - Cabinet Building.
  - Drilling.
  - Framing.
  - Furniture Making.
  - Insulation.
  - Paneling.



| Self-Check -4 | Written Test |
|---|---|

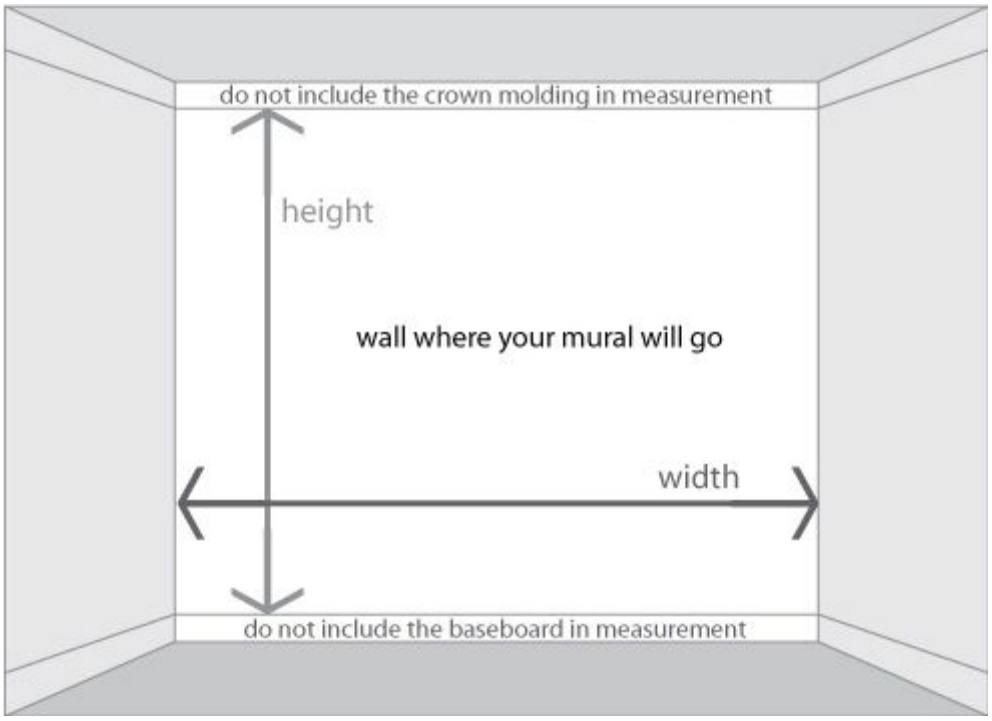
**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. List the tools that carpenters used.

***Note:*** **Satisfactory above – 4 out of 8 points Unsatisfactory - below 4 out of 8 point**

| Information Sheet 14 | Cutting Paneling to fit size of wall and roof. |
|---|---|

## 14.1 size of wall and roof




**How wide should wainscoting panels be?**

To find the amount of panel material needed, multiply the height of the panel by the width of the panel to find the size of the panel, then multiply by the number of panels needed. For example, a 24″ high by 36″ wide panel is 6 square feet, if there are three panels, and then 18 square feet will be needed.

Secure the paneling to the wall with panel adhesive and finishing nails. Load a caulking gun with a tube of panel adhesive and apply a small dab of it on the wall about every 10 inches. Place the panel on the wall and press it into the adhesive.

Panel board nails, sometimes referred to as panel pins or paneling nails, are thin, 16.5 gauge nails used to attach panel board to the wood furring or studs underneath.

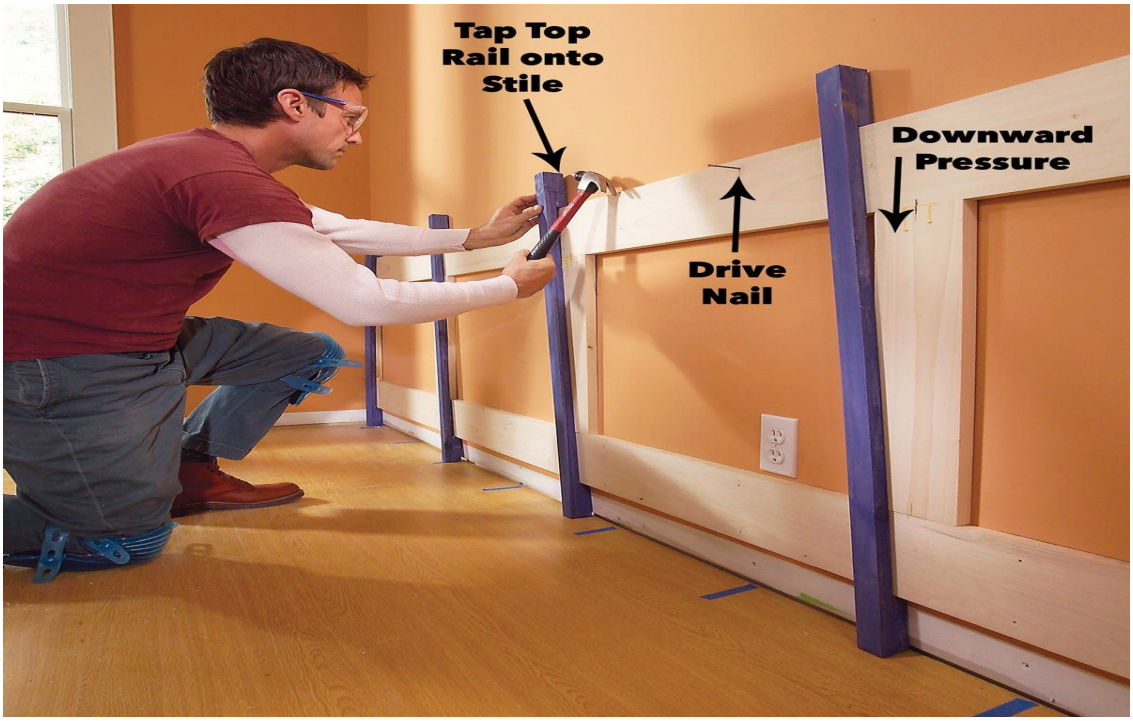



**Figure 8 wainscoting panel**

| Self-Check -5 | Written Test |
|---|---|

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. What is the difference between wall and roof?

***Note:*** **Satisfactory above – 4 out of 8 points Unsatisfactory - below 4 out of 8 point**

| Information Sheet 15 | Fixing Abutting joints of paneling. |
|---|---|

15.1 Fixing Abutting joints of paneling

**How to fix a Paneling Seam**

- ✓ Remove existing trim such as baseboards or molding at the top of a wall with the back of a hammer or pry bar. ...
- ✓ Tape over the seams in the paneling, using drywall tape that looks like mesh. ...
- ✓ Scoop drywall mud into a paint tray. ...
- ✓ Paint over the paneling, using primer.


**Figure 9 fixing paneling**

| Self-Check -6 | Written Test |
|---|---|

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

**Essay**

1. How to make joints of paneling? Define and explain briefly.

***Note:*** **Satisfactory above – 4 out of 8 points Unsatisfactory - below 4 out of 8 point**

| Information Sheet 16 | cutting, fitting and fixing Paneling |
|---|---|

## 16.1 cutting, fitting and fixing Paneling

For more information refer information sheet 11

- ✓ Securing is get **something**. to obtain or achieve **something**, especially when this **means** using a lot of effort **secure something** to **secure** a contract/deal The team managed to **secure** a place in the finals.

**Figure 10 fixing paneling**

# ✓ Fixing

**Fixings – The Complete Guide to All the Different Types of Fixings**

- Expanded metal lathe and galvanized strip. ...
- Different types of **fixings**. ...
- Variety of nails. ...
- Wall plugs. ...
- Screw head caps. ...
- Larger **fixings**. ...
- Polyester Resin **Fixing**. ...
- Plastic spring toggle, hollow wall anchor and holow wall plug plasterboard **fixings**.

**Fixings and fasteners: nails and screws**

3. Fixing is the act of holding and securing an object in place (sometimes called the fixing method); and.
4. Fastener is the holding down and securing connectors used for fixing (sometimes called the fixing device).

✓ **Finish Carpentry Fixings**

**The nails and screws I use for trim carpentry jobs**

This is my **finish carpentry fixings** tray. It contains everything I need for fixing skirting, architraves, stair spindles, hanging doors and all the other trim carpentry jobs I do.

Apart from screws, plugs and nails there is an assortment of hinges, magnetic catches, spare handle spindles and I also keep spare longer bolts for small cupboard door knobs because often the ones supplied are too short.

Using the right nails or screws and plenty of wood glue is essential in order to get the best finish.

As a general rule, screws and nails should be at least three times as long as the material being fixed is thick. So, for 20mm thick timber use 60-70mm screws or nails, unless they would go through and come out the other side of what you are fixing the material to!

Wherever possible I use secret fixings or at least give thought not just to how best to get a fixing but to disguise it or place it in the least noticeable position.

I also have in the kit a tin of wood stopping for whichever timber i'm using, like pine, oak or mahogany for example. To go with that I've got 2 different grades of sandpaper in my kit, grade 80 and 120 grit.

✓ **Finish carpentry fixings - nails**

Finish carpentry nails have small heads that can be punched under the surface with little risk of splitting the work piece so filler can be applied afterwards. If nailing close to the end of the timber, put the head of the nail to the floor and hit the sharp end with a hammer to blunt it a bit. This makes the nail punch a hole through instead of separating the wood fibers and reduces the chance of splitting. If in doubt, drill a pilot hole slightly smaller than the nail instead.

- **75mm lost head nails**

These are the best nails for fixing skirting board to stud work interior walls. Sometimes you can get away with fixing into masonry with them but generally, when fixing to brick or block-work skirting boards need to be screwed

- **40mm oval nails**

Ovals are the best nails for architraves if you don't have a finish nail-gun. Sometimes I only want to pin the architrave on temporarily and they are perfect for that too. They can also be used for pinning miters together on large moldings.

- **20 and 40mm panel pins**

The best nails for pinning skirting miters together are 20 or 40mm panel pins, depending on the size of the skirting board. These pins are also great for small beads and moldings like quadrant or Scotia for example.

- **20mm Veneer pins**

Whenever a panel pin could risk splitting a small molding, like when fixing a mitre for example - veneer pins are usually thin enough to do the job without splitting the work-piece.

- **Nail-gun brads, 38 and 50mm**

My nail-gun is pretty much indispensable for finish carpentry as it saves time not only nailing but punching them in too. The 38 and 50mm brands are the best size nails for architraves, spindles/spacers, holding things in place till the glue goes off like small bits of skirting that a nail/screw could split.

## Finish Carpentry fixings - Screws

When a nail won't hold you've got to screw it. Just like with nails I try to hide screws and use pellets to fill over them wherever possible. It's almost always necessary to pilot drill and countersink before winding any screws into trim carpentry mouldings. All the screws I use are Pozi-drive.

- 100**, 70, 60, 50mm Turbo Gold Screws**

This is the range of larger screws I use for fixing things like battens to walls, skirting boards to masonry and stud-work, Newel posts or half newels to walls, door linings etc.

- 45**, 35, 25mm Turbo Gold screws**

These shorter screws are good for most 75mm hinges. Whilst fire rated hinges tend to be supplied with matching screws in chrome or brass, as well as latches and other types of ironmongery these screws work fine in rare cases that they don't. They are also fine when re-using old furniture on new doors for example, I generally tend to replace old screws with new because they'll last longer and are less likely to snap causing big problems!

- 15mm **screws**

These screws are used for small ironmongery, such as door bolts and hanging rail brackets

## Finish carpentry fixings - Rawl Plugs and Cavity fixings

For fixing to masonry I carry red and brown plugs. The best way of fixing to plasterboard I've found is to use 50mm Redi Drivers (for heavy/secure loads) or Fischer plasterboard plugs.

## Screw diggers, wooden pellets, Plug cutters and Wood Filler

When finishing things like staircases and other large joinery I
often drill pilot holes and use a plug cutter to cut a wooden pellet instead of filling the hole with wood filler.

Disguising Finish carpentry fixings is essential. Although smaller pin holes can be unnoticeable when filled with wood filler larger screws when filled stand out and completely ruin the look of the work-piece.

Wooden pellets however when placed with a bit of thought look like they are supposed to be there and can even become a decorative feature of the piece. For the best job, again use a on an off-cut of the material you are filling, lining up and matching the grain as closely as possible.

**Figure 11 wooden pellets**

✓ paneling - a panel or section of panels in a wall or door

- paneling, pane
- exterior door, outside door -
  a doorway that allows entrance to or exit from a building
- panel
  sheet that forms a distinct (usually flat and rectangular) section or com ponent of something
- sliding door - a door that opens by sliding instead of swinging
- swing door, swinging door -
  a door that swings on a double hinge; opens in either direction
- wall -
  an architectural partition with a height and length greater than its thick ness; used to divide or enclose an area or to support another structure; "the south wall had a small window"; "the walls were covered with pict ures"

- wall panel - paneling that forms part of a wall

**Figure 12 wall panel**

| Self-Check -7 | Written Test |
|---|---|

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. Write the different types of fixing?

***Note:*** **Satisfactory above – 4 out of 8 points Unsatisfactory - below 4 out of 8 point**

## List of Reference Materials

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- https://www.ccaa.com.au/imis_prod/documents/Library Documents/C
- https://www.houselogic.com/remodel/painting-lighting/concrete-painting/
- https://www.google.com/search?sxsrf=ACYBGNQHUi0Oo5VLVWER8HU5E4Hiyr5yWw:1569940933971&q=what+is+Applying+co

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