

PENANG SANGAM HIGH SCHOOL

P.O.BOX 44, RAKIRAKI

WEEK 12 WORKSHEET

Subject: Basic Technology

Year/Level: 10

Strand	BT10.4 HAND TOOLS AND MATERIALS
Sub Strand	BT10 4.1.2 HARDWARE
Content Learning Outcome	BT10.4.1.2.1 Identify the hardware for joinery works, their parts and uses and develop skills in use of the hardware in project work.

LESSON NOTES

Hardware for Joinery

There is wide range of hardware available for joinery works. This section focuses on handles, hooks, hasps and hinges used in joinery works.

Handles

The right handles selection and positioning can transform the look of your kitchen units and doors, taking them from ultra-modern to elegantly traditional.

Door Handles

Doors generally have at least one fixed handle, usually accompanied with a latch. However, other types of handles are also used depending on the thickness and type of door.



Latch Handles

Are for internal use and usually mounted on a back plate. They are used in conjunction with a tubular mortise latch and suitable for use with doors that are of 35-44mm thickness.

Lock Handles

Have a keyhole cut for use both internally and externally where a lock is required and are used in conjunction with mortise sash locks. They are suitable for use with doors that are of 35-54mm thickness.



Hooks

Whether you want to hang a coffee cup or support a clothes line, you will be able to find a hook of the right size and shape to do the job. Use large hooks for heavy objects; a small hook may bend or pull away from the surface when supporting a heavy load. Before installing a hook that screws into place, make a pilot hole with a nail or drill.

- i. **Screw Hook** - has a threaded end that screws into wood, ceilings or walls. The open end supports various items. The rounded tip hook is for household uses; pointed tip is for suspended ceilings. The L-shaped hook supports wide objects.



- ii. **Swag Hook** - combines a hook with a toggle bolt for hanging a swag lamp or a plant from ceiling.



- iii. **Screw Eye** has a ring shaped end. Use it alone by fitting objects through the ring.



- iv. **Hook and Eye** has a hook attached to a screw eye that screws into a gate or door. The hook fits into another screw eye to keep the gate or door closed or open.



- v. **Rope Hook** comes in various designs. These are general purpose hook with two or four holes in the flat stem for screws.

(vi) **Self-adhesive Hook** made of plastic and meant for light weight objects. To install, wipe the surface clean, remove lining paper and press hook in place.



(vii) **Coat Hook** may have one, two or more hooks in various directions for hanging coats and hats.



(viii) **Picture Hook** is nailed into a wall. A wire is attached to the back of picture frame and hanged on to the hook.



(ix) **Heavy-duty Hook** is for hanging objects in a garage or workshop for items like bicycles and spare parts.

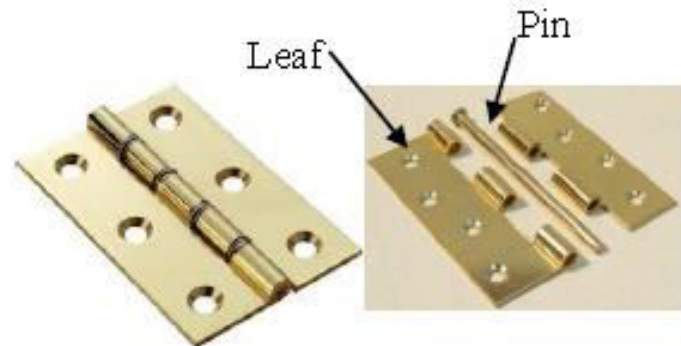


HINGES

A hinge often has two leaves held together with a pivot pin inside knuckles or barrel. Most cabinet and house door hinges can be used either left or right handed doors. Hinges can be surface mounted (with leaves slightly raised), but the leaves create a gap between the door and frame when the door is closed.

The three basic types of hinges are:

i. **Butt Hinges** Most butt hinges have a non-removable fixed pin. They are suitable for an exterior door where the barrel is exposed outside; to remove door, the hinge must be unscrewed.



ii. **Flush Hinges** - This hinge is normally used for a light weight door and is surface mounted but does not create large gaps. To install, screw the small leaf to door and large leaf to the frame; when closed, the small leaf fits into the large one.



iii. **Tee Hinges** - Tee hinges come in large heavy duty sizes for doors, gates, boxes and chests.



STUDENT ACTIVITY

1. Name and describe two types of handles used in joinery.

2. Name and describe three types of hooks used in joinery.

3. Name and explain with the help of sketches two types of hinges used in joinery.

THE END