

PENANG SANGAM HIGH SCHOOL

P. O. BOX 44, RAKIRAKI  
LESSON NOTES - 17

SCHOOL: PENANG SANGAM HIGH

SUBJECT: BASIC TECHNOLOGY

YEAR/ LEVEL: 9

Strand	BT9.4: HAND TOOLS AND MATERIALS
Sub - Strand	HAND TOOLS AND APPLIANCES.
Content Learning Outcome	BT9.4.1.1 Identify the common woodworking and metalworking hand tools, their parts and uses and develop skills in use of the hand tools.

**INTRODUCTION**

In most jobs and projects, the correct hand tools are essential to complete the task. Whether you are making a small task, project or big furniture, you will need the right tools. After all, it is the hand tools and the skills in using them the correct way which is important.

**CLASSIFICATION OF TOOLS**

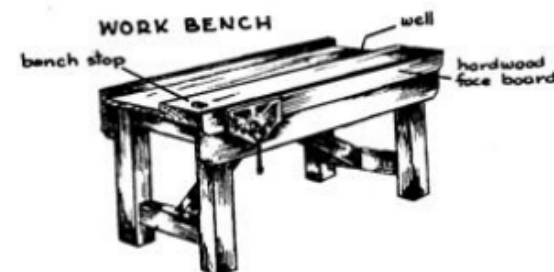
All the hand tools may be generally divided into classes or groups according to their uses. The main groups of tools which you will be introduced to are classified as follows:

1. Holding and supporting tools - These tools are used to hold or support the job while working on it.
2. Geometrical tools - These tools are used for measuring, marking, testing and setting out the work.
3. Abrading and Cutting tools - These tools are used for reducing the timber to required sizes and shapes.
4. Percussion and impelling tools - These tools are used to drive nails, screws, chisels and take out nails and screws.
5. Boring tools - These tools are used to bore holes.

**HOLDING AND SUPPORTING TOOLS**

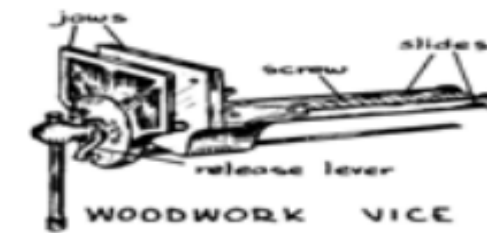
**Woodworking Bench**

The work bench is used for supporting your practical work piece or project while you work on it and during various other operations in completing your tasks and projects.



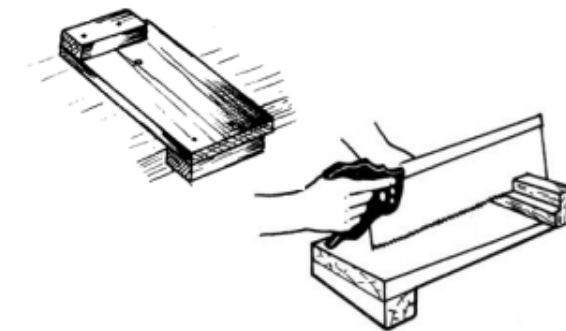
**Bench Appliance**

- Bench Well
- Bench Stop
- Bench Vice



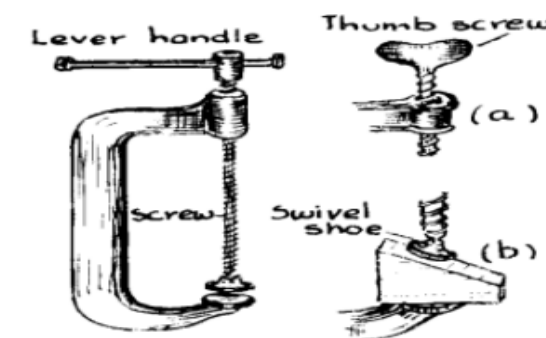
**Bench Hook**

It is made of wood and designed to hook over the bench top. It is used for holding the timber while you saw or chisel on the bench and at the same time preventing the bench top from damage.



**G-Cramp**

It is an essential holding device made of metal which is shaped in the form of a „G“. It is used for holding down the piece of timber on the bench while you work on it and also used to hold together glued pieces of timber and projects left for drying.



**Steel Rule**

It is used to measure pieces to length, measure the side and end dimensions and for checking edges and surfaces for flatness.



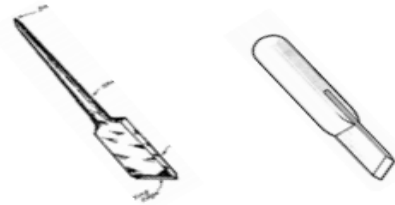
### Pencil

It is used for marking out on timber for lengths, face marks, waste wood and numbering of pieces for assembly.



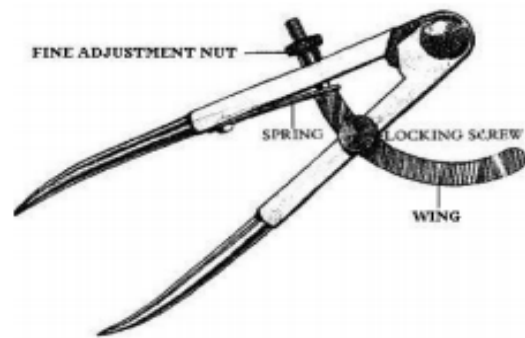
### Marking Knife

It is used where a fine and accurate cut line is required for marking joints and other more detailed markings on timber.



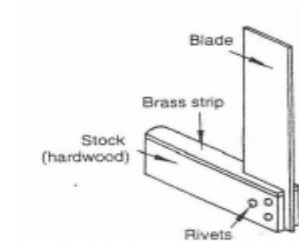
### Wing Compass

It is used for setting out and marking arcs and circles for designed work pieces.



### Try Square

It is used for marking lines at right angles on a piece of timber, testing timber surfaces for square and marking out square lines on the work piece.



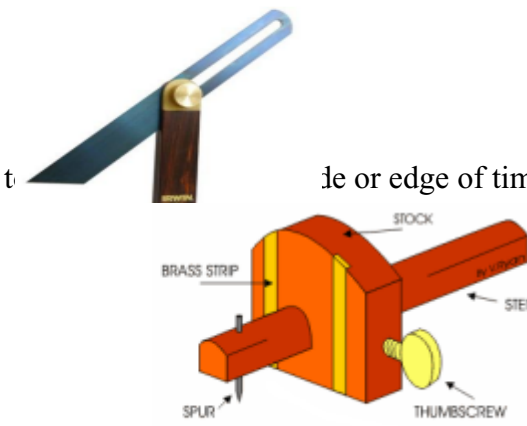
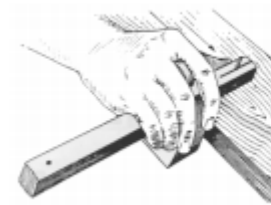
### Sliding Bevel

SANGAM EDUCATION BO

It is used for marking lines at any angle on a work piece and setting out, testing bevels and mitres.

### Marking Gauge

It is used for making lines parallel to the face or edge of timber.



### SHORT ANSWER QUESTIONS

1. Name the tool which is used for marking arcs and circles for designed work pieces.

---

---

2. Explain the term geometrical tools.

---

---

3. Name the tool which is made of wood and designed to hook over the bench top.

---

---

4. List two tools under *holding and supporting tools*.

---

---

5. Name the tool which is used to mark lines at any angle on a work piece.

---

---

**THE END**