

SUBJECT: BASIC TECHNOLOGY

TOPIC: BOARD PRACTICE

CLASS: JSS1

LESSON OBJECTIVES:

At the end of this lesson, you should be able to:

- Set drawing paper on the drawing board using Tee-square.
- Draw title block and border lines
- State two ways sharpening pencils
- Present lettering
- State steps to draughtsman ship.

Board practice is all about making technical drawing with the use of drawing board, drawing instruments and drawing materials. The technical people like engineers, architects, technicians, draughtsmen (people that draw), welders, e.t.c must have knowledge of board practice for them to do exceedingly well in their professions. Rules about this practice and the correct usage of the drawing instruments will be learnt in this lesson.

SETTING OF DRAWING PAPER ON THE DRAWING BOARD

STEP 1: The drawing board is conveniently placed on the table with the paper on the board, leaving equal size all round with the tee-square edge to the left hand side.

STEP 2: Place the tee-square on the paper and gently move or slide the tee-square to the top edge of the paper. Set the top edge of the paper parallel to the edge of the tee-square with the stock of the tee-square firmly against the edge of the drawing board on the left hand side.

STEP 3: Hold the paper with four pieces of adhesive tape or two metal clips to hold the paper in position at four corners.

STEP 4: Gently slide the tee-square down
without moving the paper.

HOW TO DRAW TITLE BLOCK AND BORDER LINES

Title block introduces or identifies a drawing work. It is drawn at the bottom right corner of the drawing paper with dimension of 120mm x 50mm which usually contain the following details:

NAME: Name Of student drawing

School: The student's school name

Class: Student's class

Title: Topic of the drawing

Scale: Details on measurement of its full scale or half scale

Date: The day the student put down the drawing.

TO DRAW THE TITLE BLOCK FOLLOW THE STEPS BELOW:

- With the aid of a pair of compasses, measure a rectangular box of 50mmx120mm, starting at the lower right corner of your borderline.

- With the aid of the compasses at 10mm radius cut the 50mm side into four equal parts.
- With the aid of the tee-square, rule the four marks from one end to the other of the title block to complete the drawing.

BORDER LINE
(10 mm round drawing paper)

120 mm or more

2 mm

2 mm

6 mm

| | |
|---------------|-------------|
| NAME | |
| SCHOOL | |
| CLASS | |
| TITLE | |
| SCALE | DATE |

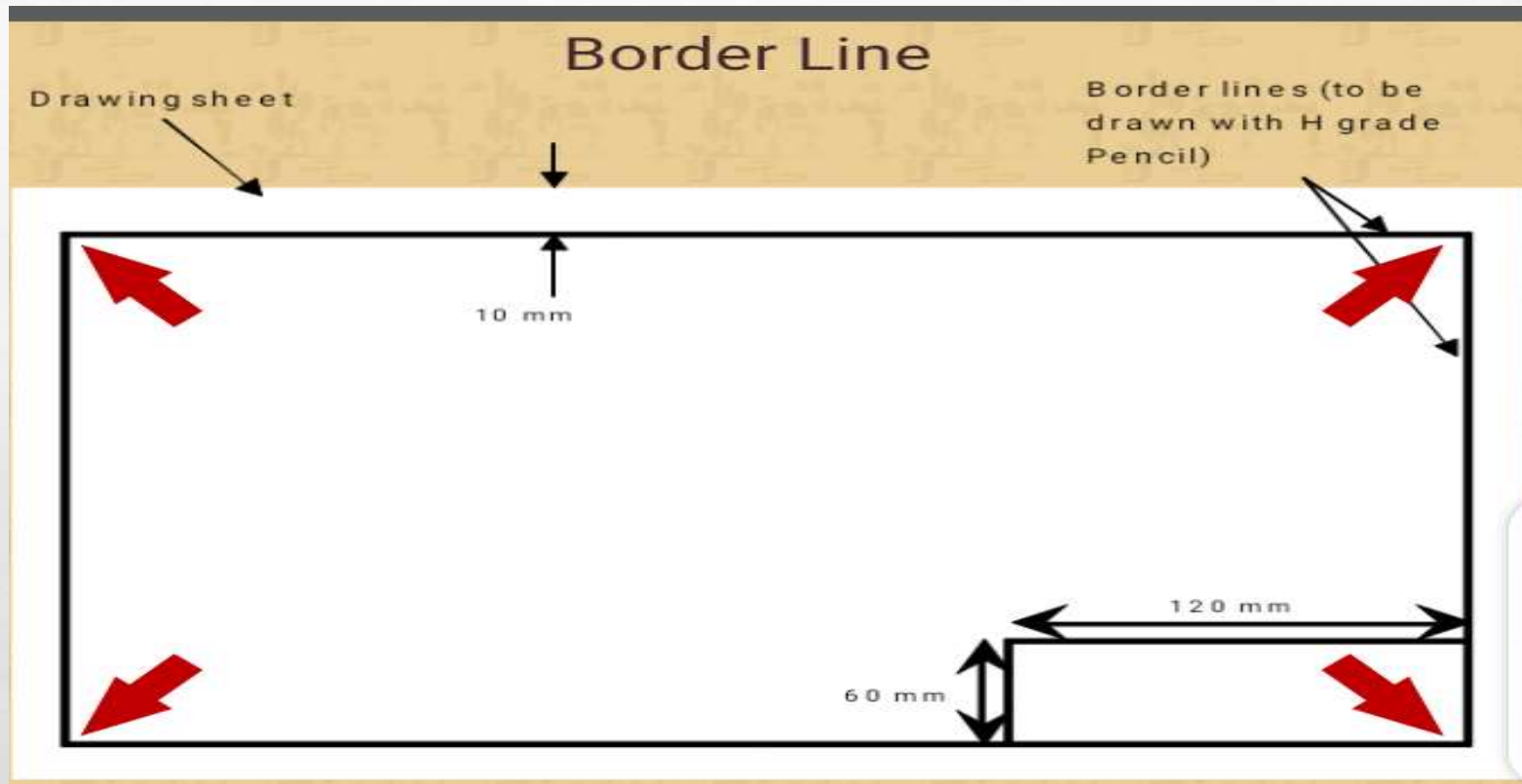
Border lines are drawn on paper in order to obtain margins with visible lines. Usually drawn all round the four sides of the drawing paper. Border line dimension is usually 10mm from the edges of the drawing paper.

Drawing Borderline:

- Using a pair of compasses, measure 10mm radius.

With the pin of the compasses at the edge of the paper,
mark the sheet at the four edges.

- With the aid of your Tee-square, draw horizontal lines passing through the upper and lower marks made earlier.
- With the aid of your 30°/60° set-square, draw vertical lines to pass through the marks made on the right and left side of the paper while rotating the set-square.



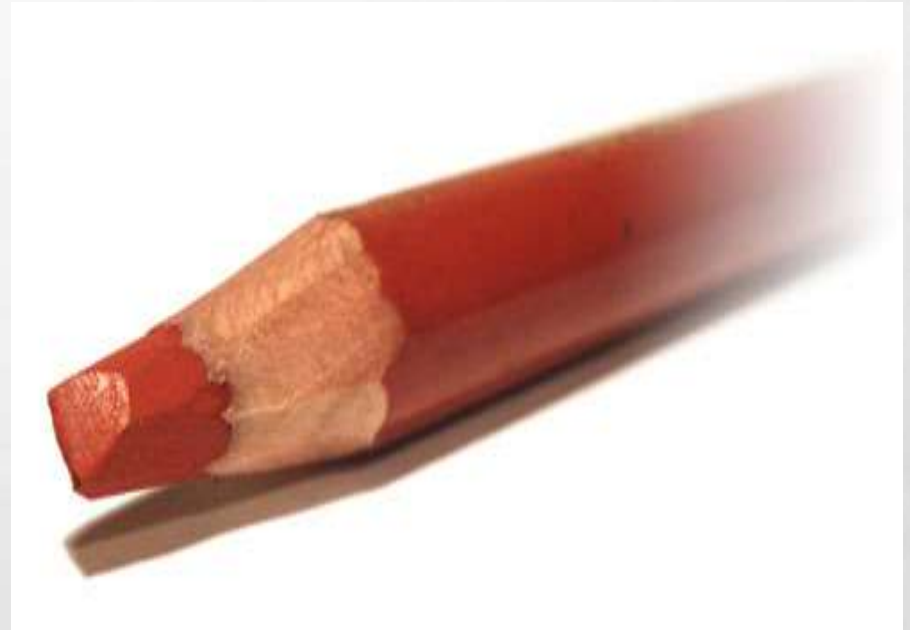
Pencils: This is used to carry out the drawing after setting the drawing paper on the drawing board.

Shapes of sharpening pencils:

Conical point pencil: A sharpened pencil in this form can be used successfully for most work.



Knife edge pencil: A sharpened pencil in this form is used on fine work. For instance fine art works.



LETTERING: Text is an important part of engineering drawing.

Not all information required in engineering drawings can be communicated graphically. Lettered text is often necessary to completely describe an object or to provide detailed specifications.

The text on engineering drawings consists of dimensions, notes etc. Developing good lettering is a personal skill which takes practice.

LETTERING STYLES

Lettering styles are either Upright or slant letters

Upright letters are usually written in single -strokes. Single-stroke letters has all the strokes of uniform thickness, and each stroke is produced by one movement of the pencil.

Upper case or capital letters are preferred to the lower case. This is because they are less congested and less likely to be misread when reduced in size on prints.



ABCDEFGHIJKLMN OP
QRSTUVWXYZ &
1234567890

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z &
1 2 3 4 5 6 7 8 9 0

LETTERING GUIDELINES

- a. Figures and letters on drawing should be written in single-stroke.
- b. It should be well and carefully printed.
- c. Fanciful or artistic hand writing is not allowed.
- d. Painting of letters should be avoided.

- e. Constant rubbing with an eraser should also be avoided.
- f. Use faint horizontal lines as guidelines to ensure that the letters are of equal height and lie within the same parallels.
- g. Either straight or inclined printing is allowed. Mixture of the two should not be used. If to be used, not in the same line.

DRAUGHTSMANSHIP KNOWLEDGE

Draught simply means to draw while those that are working in drawing offices are referred to as draughtsmen.

Draughtsman ship is the means of producing neat and accurate technical drawing. Therefore, it involves the correct ways of using the drawing instruments and materials and keeping them safely after use.

STEP TO DRAUGHTSMANSHIP

- Let your work be pleasant to look at.
- Drawing should be prepared in a clean environment.
- Thick and deeply impressed lines should be drawn only when they are not likely to be rubbed off again.

- Pencils should be sharpened on a sand paper block as they get blunt.
- Clean handkerchief should be used to remove rubbed off pieces after using an eraser.
- Lines of uniform thickness should be made.

- Border line round the paper to show a margin of reasonable width should be done.
- Drawings should be arranged on the drawing paper so that the paper is uniformly covered with the drawings.
- Drawing instruments and paper should be carefully handled.

DRAWING OF PARALLEL AND PERPENDICULAR LINES

The figure below shows how tee-square is placed to draw horizontal lines, parallel lines and perpendicular (vertical) lines can be drawn using tee-square and set-square.

Evaluation:

- Set drawing paper on the drawing board using Tee-square.
- Draw title block and border lines
- State two ways sharpening pencils
- Present lettering
- State steps to draughtsmanship.

**THANKS FOR
WATCHING!!!**