

# LESSON PLAN

**Trade:** Draughtsman Mechanical (CITS)

**Date:** 01.01.2021

**Lesson No:** 01

**Module/Unit:** 10

**Time:** 40 minutes

## I. PREPARATION:

**Title** Scales and its types

**1. Objectives:** (*At the end of the lesson the trainees will be able to*)

- 1) Define Scale in engineering drawing.
- 2) State the importance of scale
- 3) State the classification of scales
- 4) Explain the term Representative Fraction with an example

**2. Teaching Aids:** White Board, Duster, Pointer, scales, etc.

### 3. Introduction

- a) Review: Importance of Indian standards in Engineering Drawing
- b) Motivation: Draw a machine component bigger than the size of drawing sheet

## II. PRESENTATION:

Developments / Topics	Information Points	Hints
Definition	The proportion by which the drawings are prepared either smaller or larger than the actual size of the objects in order to understand the details of the object.	W/B
Importance	The scales may be represented by following ways: Full size, Reduction scale and Enlarging scale	W/B

Developments / Topics	Information Points	Hints
Classification of Scales	1) Plain Scale 2) Diagonal Scale 3) Comparative Scale 4) Scale of Chords 5) Vernier Scale 6) Isometric Scale	PPT
Representative Fraction (RF)	It is the ratio of distance on a drawing to the corresponding actual size of the object  Example : Represent 1m on a drawing scale with 1cm	W/B

### III. APPLICATION:

- 1) What is a Scale?
- 2) What is a use of a scale?
- 3) What are the types of scales?

### Summary:

Definition, importance and classification of a scale, explanation of the term Representative Fraction (RF)

### IV. TEST

Assignment:

- 1) State different types of scales.
- 2) Define representative fraction
- 3) How to calculate the Representative Fraction of the Drawing?

Reference: [www.bharatskills.gov.in](http://www.bharatskills.gov.in), a textbook of engineering drawing by Surjit Singh

Next Lesson: Isometric Projections

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