Practical No.2: Identify the Grain Distribution Pattern used in a construction.

I. **Practical Significance-** The grain distribution pattern in construction results in a structurally sound, dimensionally stable, and aesthetically pleasing outcome, demonstrating a holistic understanding of the materials used in the building process.

II. **Industry or Employer Expected Outcome-**

Undertake safe building construction practices with relevant building materials.

III. **Course Level Learning Outcome-**

Identify relevant type of construction materials for the given type of building.

IV. **Laboratory Learning Outcome-**

Identify the Grain Distribution Pattern used in a construction.

V. **Relevant Affective domain related Outcome**

1. Follow safety practices
2. Practice good housekeeping

VI. **Relevant Theoretical Background**

Different wood grain descriptions: straight, irregular, interlocking, wavy, spiral.

1. **Straight-** the wood fibers consistently run in a straight direction along the cut piece of timber.
2. **Spiral-**a wood whose fibers twist as the tree develops.
3. **Interlocked-**taking things a step further than spiral grain, this describes a timber whose fibers Align in opposite directions.
4. **Interlocked-** taking things a step further than spiral grain, this describes a timber whose fibers Align in opposite directions.
5. **Avy-** describing a wood whose fibers change direction constantly.

VII. **Actual Diagram with equipment specification**

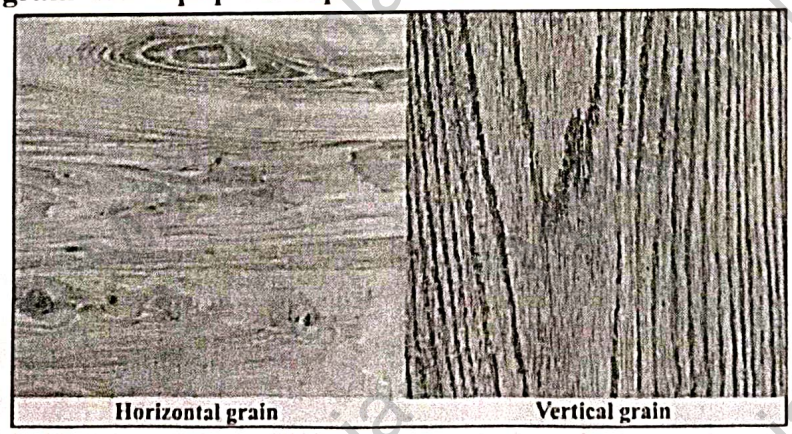

Figure 2.1: Horizontal grain & Vertical grain

VIII. Resources required

Sr.No.	Particulars	Specification	Quantity	Remark
1	Saw of different types	---	---	---
2	Measurement Scale	15 or 30 cm length	1 No.	Per batch

IX. Precautions to be followed

1. Handle the particular wood sample very carefully so that it will not break at any stage.
2. There should not be any marking with pen or pencil on the given wood sample.

X. Procedure

1. Teacher should explain the information about grain distribution of various sample of wood.
2. Discuss the grain distribution of wood and physical properties of wood.
3. Teacher should display various wood sample in the laboratory.
4. Student should observe the wood sample by handling properly and note down the same in observation table provided.

XI. Observation Table

Sr.No.	Grain Pattern	Color	Weight of sample	Whether it is Teak wood(Y/N)
1	straight	light brown	medium	N
2	wavy	dark brown	Heavy	N
3	Interlocked	medium brown	light	N
4	Curty	Radish brown	Heavy	N
5				

XII. Result

Different wood sample were observer and categoneil based on a grain colour weight and teak identification

XIII. Interpretation of results

The Sample shwed Variication in grain patentiens Colour and weights water indicating different types teak wood

XIV. Conclusions and Recommendations (if any)

The experimeat helped identfy word types using their physical characteristic

XV. Practical Related Questions

Note: Below given are few sample questions for reference. Teachers must design more such questions so as to ensure the achievement of identified CO. Write answers of minimum three questions.

1. State the nos. of wood samples available in your laboratory.
2. Name the Wood sample which is used generally for decorative purpose in constructions.
3. State uses of .....Wood. (Teacher should mention the type of construction material)
4. State four physical properties of ..... Wood (Teacher should mention the type of construction material)
5. State the importance of wood in building Construction

1. U (a) observed in the experiment

2: Teak wood or managang

3. Teak in used for furniture doors and panels pine if used for roofing close flooring

4: Durable turnite mistant Smooth finish stony

5: Strong instulating aesthic and insensible material