

Timber Tech

Hand Tools: Measuring & Marking Tools.



Educon

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Introduction:

This activity introduces learners to the essential measuring and marking hand tools used in Carpentry & Joinery. By working with visual tool cards and matching them to their correct names, learners build confidence in recognising tools, understanding their purpose, and using correct terminology. The activity is designed to be hands-on, collaborative, and accessible for mixed-ability groups, supporting both new learners and those progressing toward Level 2 competence.

Aim:

To develop learners' ability to correctly identify, name, and describe common measuring and marking tools used in Carpentry & Joinery.

Learning Objectives

By the end of the activity, learners will be able to:

- Identify a range of measuring and marking tools from images.
- Match tools to their correct names with increasing accuracy.
- Use correct terminology when discussing tools and their functions.
- Explain the purpose of each tool and when it would be used in practice.
- Build confidence in tool recognition prior to practical workshop sessions.

Activity Overview:

Learners are given two sets of cards:

- **Tool Image Cards** – showing clear photos or illustrations of measuring and marking tools.
- **Tool Name Cards** – containing the correct tool names.

Learners must match each image to the correct name. The activity can be completed individually, in pairs, or in small groups depending on the level of challenge required.

Tools may include: Tape Measure, Steel Rule, Combination Square, Try Square, Sliding Bevel, Marking Gauge, Mortise Gauge, Pencil, Marking Knife, Spirit Level, Chalk Line, Dividers, Panel Gauge.



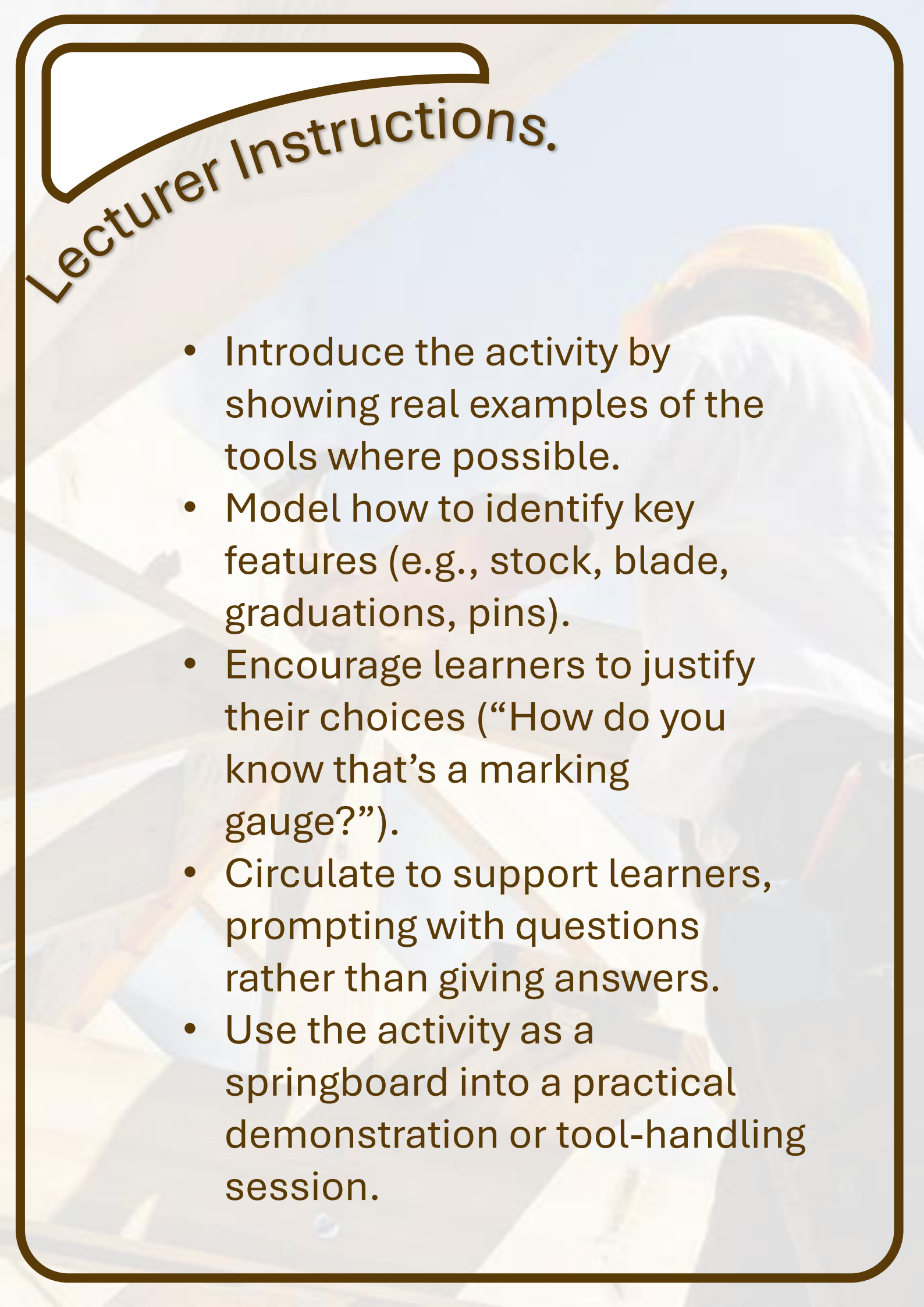
How this activity helps learning:

This activity supports learning by:

- Reinforces **visual recognition** of tools before learners encounter them in the workshop.
- Builds **technical vocabulary**, improving communication and confidence.
- Supports **memory retention** through repetition and visual association.
- Encourages **peer discussion**, helping learners explain their reasoning.
- Provides a **low-stakes, gamified entry point** into tool knowledge.
- Prepares learners for practical tasks where correct tool selection is essential.

Student Instructions:

1. Spread out all the tool image cards on the table.
2. Shuffle the tool name cards and place them face down.
3. Turn over one name card at a time and match it to the correct tool image.
4. Once all matches are made, check your answers with the answer sheet or your lecturer.
5. Extension: Write a short description of what each tool is used for.



Lecturer Instructions.

- Introduce the activity by showing real examples of the tools where possible.
- Model how to identify key features (e.g., stock, blade, graduations, pins).
- Encourage learners to justify their choices (“How do you know that’s a marking gauge?”).
- Circulate to support learners, prompting with questions rather than giving answers.
- Use the activity as a springboard into a practical demonstration or tool-handling session.

Scaffolding Options:

To support SEND and lower-ability learners:

- **Colour-coded sets** (e.g., measuring tools in blue, marking tools in green).
- **Word banks** with simplified definitions.
- **Partially completed matches** (e.g., 3–4 already paired).
- **Reduced number of cards** for learners who need a smaller cognitive load.
- **Visual clue sheets** showing tool features labelled.
- **Matching by category first** (measuring vs marking) before matching names.

Differentiation Strategies.

For learners needing more support:

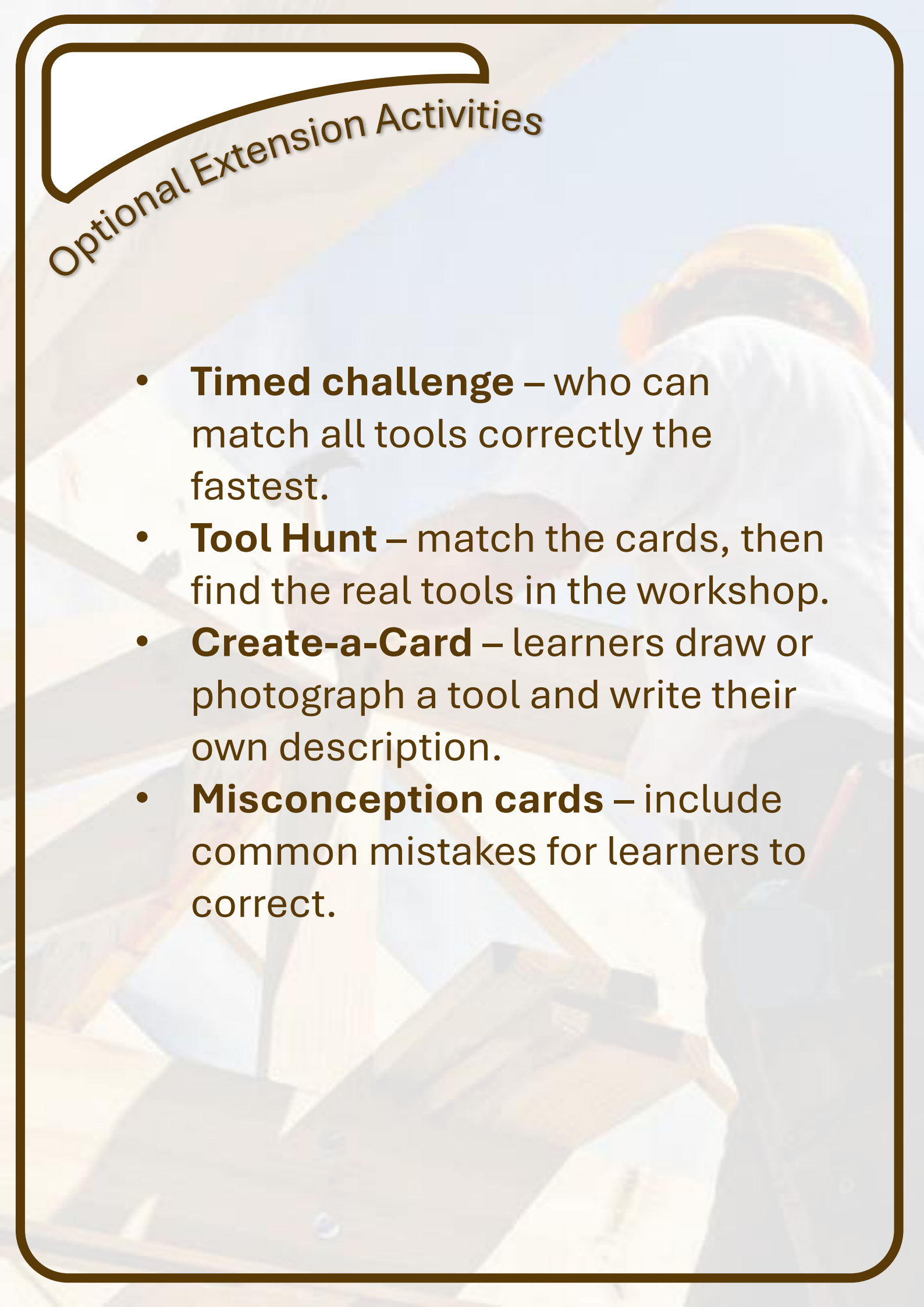
- Provide a glossary sheet with images and names.
- Allow pair-work or guided matching with the lecturer.
- Use larger print or high-contrast cards for accessibility.

For learners needing more challenge:

- Add **function cards** (e.g., “Used to transfer angles”).
- Add **scenario cards** (“You need to check a 90° angle — which tool?”).
- Ask learners to **rank tools** by frequency of use or importance.
- Introduce **incorrect or trick cards** to test deeper understanding.
- Require learners to **demonstrate the tool** after matching.

Assessment Opportunities

- **Observation:** learners' ability to identify tools and explain their reasoning.
- **Questioning:** "What is this tool used for?", "Why choose this over a try square?"
- **Completed match-up:** accuracy of tool–name pairs.
- **Short written task:** learners write a description of 3–5 tools.
- **Practical link:** learners select the correct tool during a workshop task.
- **Exit ticket:** "Name one measuring tool and one marking tool and describe their use."



Optional Extension Activities

- **Timed challenge** – who can match all tools correctly the fastest.
- **Tool Hunt** – match the cards, then find the real tools in the workshop.
- **Create-a-Card** – learners draw or photograph a tool and write their own description.
- **Misconception cards** – include common mistakes for learners to correct.

Hand Tools

Hand Tool Card



Hand Tools

Hand Tool Card



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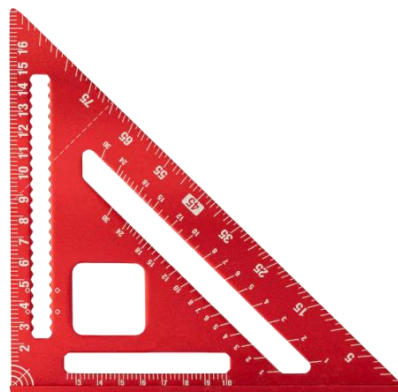
Hand Tools

Hand Tool Card



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Steel Rule



Hand Tools

Hand Tool Card



Boat Level



Hand Tools

Hand Tool Card



Spirit Level



Hand Tools

Hand Tool Card



Tape Measure

Hand Tools

Hand Tool Card



Pencil

Hand Tools

Hand Tool Card



Dividers

Hand Tools

Hand Tool Card



Inside Calipers

Hand Tools

Hand Tool Card



Outside
Calipers



Hand Tools

Hand Tool Card



Digital Calipers



Hand Tools

Hand Tool Card



**Chalk Line &
Reel**



Hand Tools

Hand Tool Card



Marking Knife



Hand Tools

Hand Tool Card



Straight Edge

Hand Tools

Hand Tool Card



**Trammel
Heads**

Hand Tools

Hand Tool Card



**Combination
Square**

Hand Tools

Hand Tool Card



Mitre Square

Hand Tools

Hand Tool Card



Sliding Bevel



Hand Tools

Hand Tool Card



Try Square



Hand Tools

Hand Tool Card



**Combination
Gauge**



Hand Tools

Hand Tool Card



Cutting Gauge



Hand Tools

Hand Tool Card



Marking Gauge



Hand Tools

Hand Tool Card



Mortice Gauge



Hand Tools

Hand Tool Card



Dovetail
Square 1:6



Hand Tools

Hand Tool Card



Dovetail
Square 1:8



Hand Tools

Hand Tool Card



Folding Rule



Hand Tools

Hand Tool Card



Profile Gauge



Hand Tools

Hand Tool Card



Roofing Square



Hand Tools

Hand Tool Card



Speed Square



Hand Tools

Hand Tool Card



Scribe

Thank You.

We would like to say thank you for using this learning material, we hope you found it useful.



If you have any questions regarding this or any other learning material produced by James, or have any suggestions about improvements or ideas please email James Rix at:

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