

Name _____

Class _____

Date _____

By the end of this worksheet I can...

- ☐ choose the correct marking-out tool for wood, metal and plastic
- ☐ describe how to mark out a housing, halving or bridle joint
- ☐ describe how to mark out a hole centre, radius and fold line on metal
- ☐ explain why marking out starts from a datum

I DO

Worked example Read how a full-mark answer is built

A pine bookshelf has shelves fixed into the sides with stopped housing joints.

1 Describe how the housing joint would be marked out and cut. You should refer to the tools used. (4 marks)

Full-mark answer each ✓ is one mark

Measure the position of the shelf from the bottom of the side with a steel rule and mark it in pencil ✓. Square both lines across the face with a try square and a marking knife ✓. Clamp a straight guide block along the line with a G-clamp and saw down to the depth line with a tenon saw ✓. Remove the waste with a bevel-edged chisel and mallet and level the bottom with a hand router ✓.

Why marks are not awarded

"I would measure it, mark it out, then cut it out with a saw and chisel and sand it."

0–1 marks: no specific tools for marking out, "saw" is not named, and sanding is not part of making the joint.

WE DO

Guided practice Use the starters and word bank to help you

The corners of an ash picture frame are joined with bridle joints.

2 Describe how one half of the bridle joint would be marked out. You should refer to the tools used. (3 marks)

Sentence starters

First, ...

Next, ... using a ...

Then ...

Word bank

Mortise gauge · try square · mating · steel rule · measure · chisel · pencil · marking knife

Tip: 3 marks = 3 separate, developed points.

YOU DO

On your own No notes. Check your answers afterwards.

3 Quick check: tick one box for each.

- a) Which tool marks both lines of a bridle joint at the same time?
☐ Marking gauge ☐ Mortise gauge ☐ Try square ☐ Sliding bevel
- b) A fold line across a steel strip is marked with...
☐ Engineer's square and scribe ☐ Try square and a soft pencil ☐ Marking gauge and a ruler ☐ Bradawl and a steel rule
- c) A centre line along a metal bar is best marked with...
☐ Mortise gauge ☐ Try square ☐ Odd-leg callipers ☐ Sliding bevel
- d) Why is a marking knife used along a shoulder line?
☐ To mark a line on metal before filing it ☐ To cut the fibres for a clean saw cut ☐ To find the centre of the workpiece ☐ To mark curved lines accurately

4 Key terms: write the letter of the matching description next to each term.

- | | | |
|-----------------------|-------|---|
| 1. Datum (wood) | _____ | A Face side and face edge, planed true and marked, that all measurements are taken from. |
| 2. Datum (metal) | _____ | B Scribe circles and radii on metal from a centre-punched point. |
| 3. Engineer's blue | _____ | C Marking dye applied before scribing so lines show clearly on metal. |
| 4. Marking knife | _____ | D Scribe across with an engineer's square against the datum edge and a scribe. |
| 5. Spring dividers | _____ | E Two edges filed straight and square, used as the reference for all marking out. |
| 6. Fold line on metal | _____ | F Cuts wood fibres along a shoulder line for a crisp saw cut. |

A mild steel wall hook has a 15 mm corner radius and a hole for a screw.

5 Describe how the corner radius and the hole centre would be marked out. (3 marks)

An aluminium bracket is to be marked out from a drawing.

6 Describe how the bracket would be marked out. You should refer to the tools used. (3 marks)

Check and reflect

Mark your answers with the answer sheet. Go back to the checklist on the site and re-rate each “I can” statement above. Which one still needs work?
