04 Planning for manufacture.

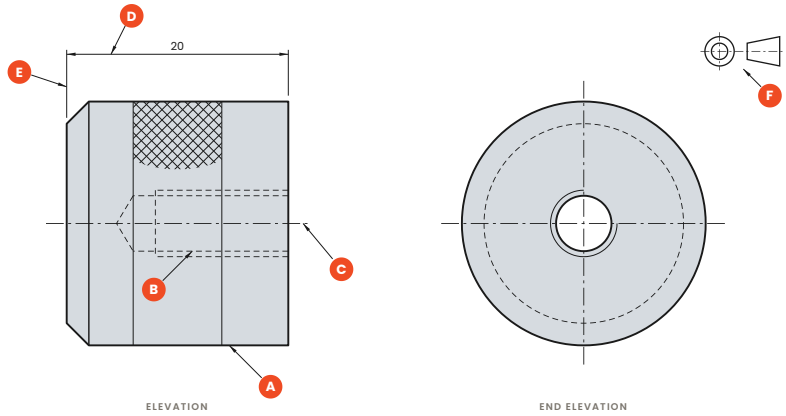
WORKSHEET 04 · TOPIC 04 · USE COURSE NOTES PAGES 15–18 TO HELP YOU

NAME | CLASS | DATE

TASK 1 Read the working drawing

6 marks

This is the working drawing of the NOOK aluminium foot. Write the letter (A–F) that points to each feature.



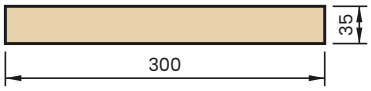
FEATURE	LETTER
Outline	
Hidden detail line	
Centre line	
Dimension line	
Extension line	
Projection symbol	

TASK 2 Complete the NOOK cutting list

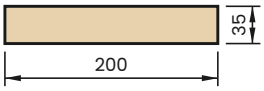
4 marks

Use the dimensioned sketches to complete one row for each part. All sizes in mm.

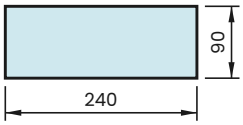
LONG LOWER RAIL
Ash · make 2 · 20 thick



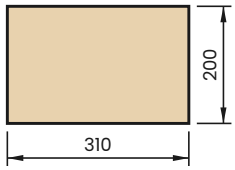
SHORT LOWER RAIL
Ash · make 2 · 20 thick



TRAY BLANK
Clear acrylic · make 1 · 3 thick



SHELF
Birch plywood · make 1 · 9 thick



PART	MATERIAL	QUANTITY	LENGTH	BREADTH	THICKNESS
Long lower rail					
Short lower rail					
Shelf					
Tray (before bending)					

TASK 3 True or false? Tick one box for each.

4 marks

STATEMENT	TRUE	FALSE
In third-angle projection, the plan is drawn below the elevation.	☐	☐
A drawing at scale 1:2 is half the real size.	☐	☐
Dimensions on a 2:1 drawing give the drawn size, not the real size.	☐	☐
On a cutting list, breadth means the width of the part.	☐	☐

TASK 4 Put the tray stages in order

5 marks

These stages for making the NOOK acrylic tray are jumbled.

(a) Write 1–6 in the boxes to show a correct order. 4

	OPERATION	TOOLS AND EQUIPMENT	ORDER
A	Heat along the first bend line until soft	Strip heater	
B	Cut out the blank and the finger notch	Coping saw, bench vice	
C	Mark out the outline and hole centres on the protective film	Steel rule, marker pen	
D	Cross file, draw file, then wet and dry, then polish the edges	Files, wet and dry paper, polish	
E	Drill the screw holes: masking tape on top, waste wood under	Pillar drill, twist drill, machine vice	
F	Bend over the former and hold it until it cools	Wooden former	

(b) Explain why the holes are drilled **before** the tray is bent. 1

TASK 5 Fix the weak plan

3 marks

Each row from a pupil's NOOK plan would score 0. Rewrite the weak part so it would score.

PUPIL WROTE	YOUR IMPROVED VERSION
Cut the leg blank to length · **Saw**	
Drill the holes in the side rail · **Drill**	
Pillar drill safety check · **Wear goggles**	

TASK 6 Exam practice

6 marks

Each NOOK leg is turned on the wood lathe from a 480 mm blank. The finished leg is 460 mm long.

(a) Outline **two** reasons why the blank is longer than the finished leg. 2

(b) State **two** checks you would make on the pillar drill before drilling the side rail. 2

(c) Describe **two** stages, with tools, in marking out the line to cut the side rail to length. 2