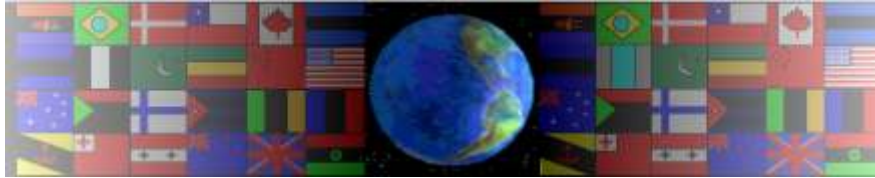


MANUFACTURING PRODUCTS AND REDUCING WASTE - 2

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On behalf of The World Association of Technology Teachers

W.A.T.T.



World Association of Technology Teachers

This exercise can be printed and used by teachers and students. It is recommended that you view the website (www.technologystudent.com) before attempting the design sheet .

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MANUFACTURING PRODUCTS AND REDUCING WASTE

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1. The working drawing opposite, shows a pine box as a front, side and plan view. How can this type of drawing help reduce the amount of waste materials produced during the manufacturing process?
The key words/phrases below may help you answer this question.

THE SOLUTION

WORKING DRAWING

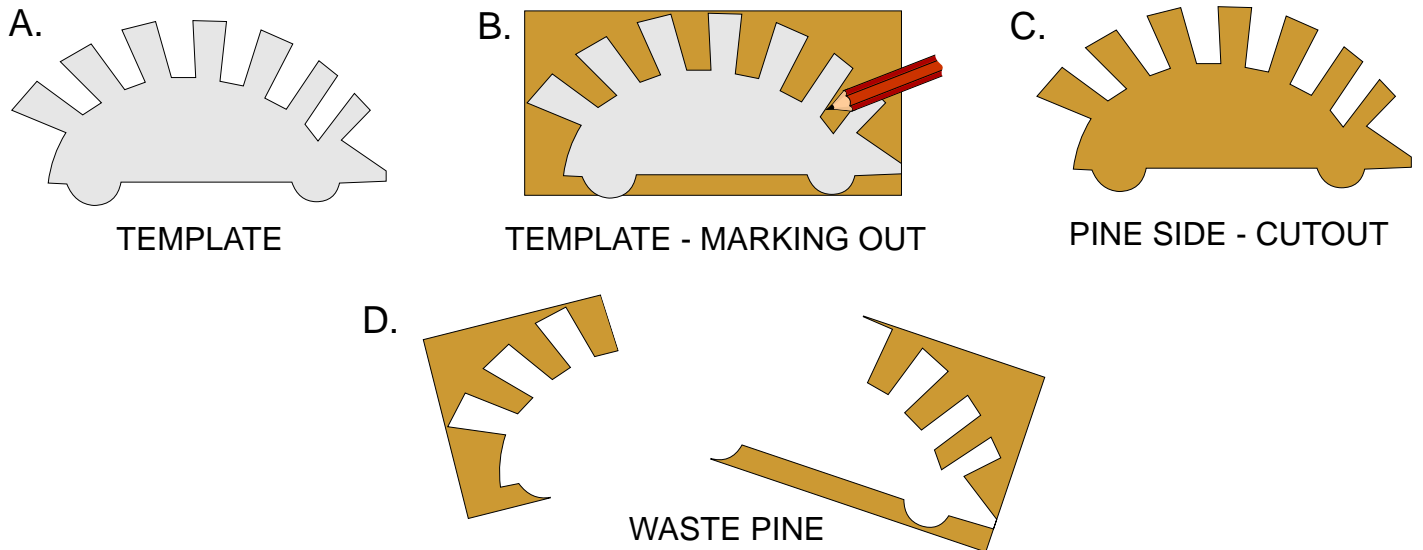
SCALE 1:2
THIRD ANGLE PROJECTION

BASE LINE

PART No	No OFF	DESCRIPTION	MATERIAL	DIMENSIONS	FINISH
1	4	SIDES	PINE	300 X 75 X 12mm	VARNISH
2	2	HINGE	BRASS	50 X 8 X 12mm	POLISHED
3	1	LID	PERSPEX	300 X 300 X 4mm	POLISHED
4	1	MAZE	MDF	270 X 270 X 12mm	PAINT
5	1	BASE	MDF	288 X 288 X 12mm	NATURAL
6					
7					
8					
9					
10					

MEASUREMENTS PARTS LIST GOOD PLANNING ORDERING MATERIALS

2. The sides of a DVD holder are based on the shape seen below (dia 'A'). This is an aluminium template which will be used to mark the shape of each side on to a pine rectangle. It will then be cut out on a fretsaw. The sequence drawing is shown below.



How does using an accurate template reduce the production of waste pine?

3. The company manufacturing the DVD holder has reduced waste to a minimum. However, there is still some waste pine being produced. List four ways in which this waste could be used productively.

A.

B.

D.

E.



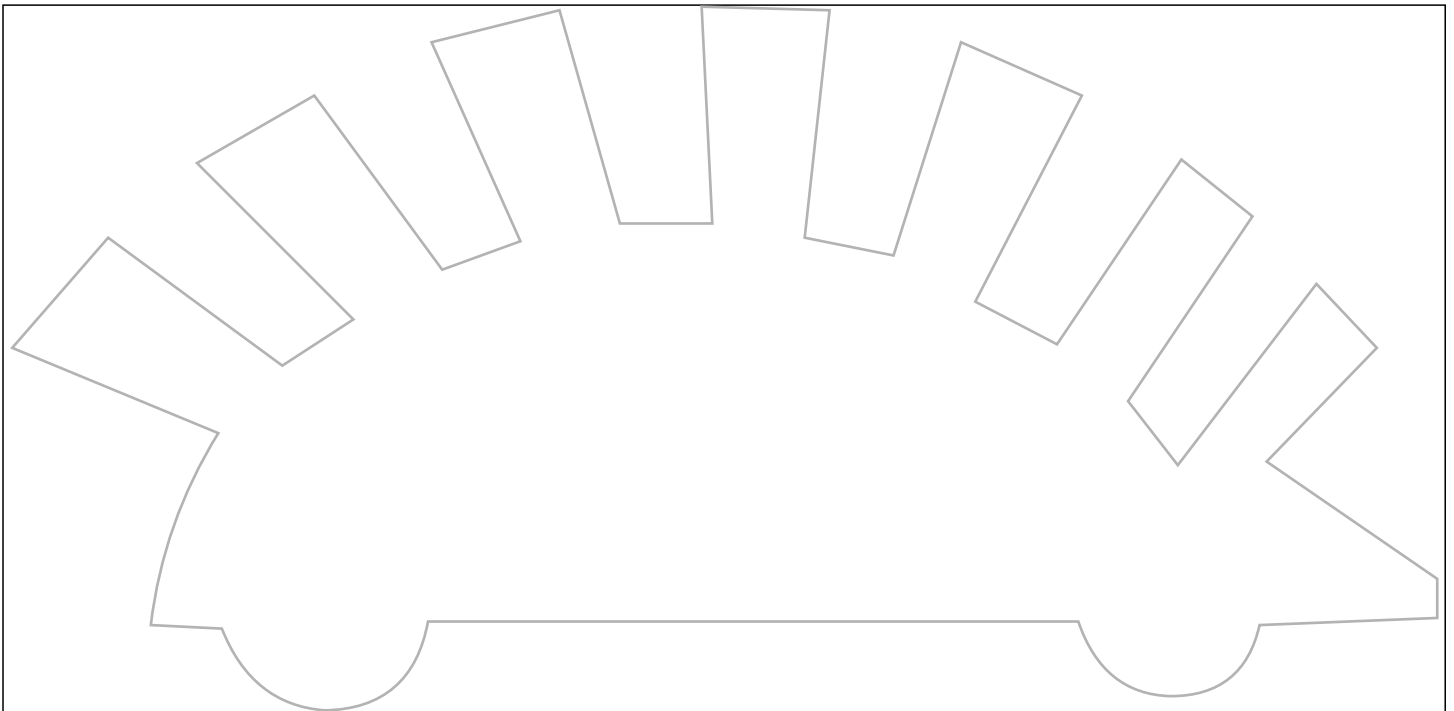
4. The pine DVD holder is seen opposite. The manufacturer wants you to redesign the sides of the DVD holder so that even less pine becomes waste. The design must also be stylish.

The rectangle below represents the PINE available for a side of the new DVD holder. Draw your design inside the rectangle. Remember, you must reduce waste even further.

The faint grey line represents the previous design. Draw your new design over the top of the old design. This will help you work out a new design that reduces waste even further.

Add notes to explain your new design and the way it has reduced waste.

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NOTES
