



Learning from Home

Term 4 Weeks 2 and 3

Key Learning Area: Industrial Technology Timber and Creative Wood

Year Group: 9

Student Name: _____

Please Circle Your Team:

1	2	3	4	5	6	7	8	9
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<p>Work Overview and Instructions</p> <ol style="list-style-type: none">1. This work it to be completed by research using the internet and calling around.2. Complete the costing sheet provided.3. I have provided a price list to use if you don't have access to either the internet or a phone.	<p>Learning Intentions</p> <p>WILT: Students Will learn how to create costing sheets for products</p> <p>EQ: How to efficiently build a product?</p>
<p>Assessment Overview</p> <p>Please make sure that you submit all completed work. Remote learning work packs from terms 3 and 4 will be used to support assessment and reporting over Semester Two.</p>	<p>Feedback Instructions</p> <p>Please return your completed worksheets to the school. Feedback will be available when you collect your next learning pack.</p> <p>Alternatively, you can scan/photograph your completed worksheets and upload them into Google Classroom for a faster response.</p>

Student Feedback

MANUFACTURING PRODUCTS AND REDUCING WASTE - 1

V. Ryan © 2009-2017

YouTube Video - Reducing Waste during the Manufacturing Process
<https://www.youtube.com/watch?v=EgkTxKDNosg>

Good planning of the manufacturing process will reduce waste. It is essential that an accurate working drawing with a parts list are constructed. This type of careful planning means that only the right amount of material and the correct sections and sizes will be ordered. Waste is reduced.

A working drawing shows the product from a number of angles and also has precise measurements. Working drawings are usually accompanied by a parts list. This details all the parts that make up the product. Measurements for each part are also included. The example opposite shows a wooden box which houses a game.

THE SOLUTION
V.Ryan © 2009 World Association of Technology Teachers
WORKING DRAWING

SCALE 1:2

THIRD ANGLE PROJECTION

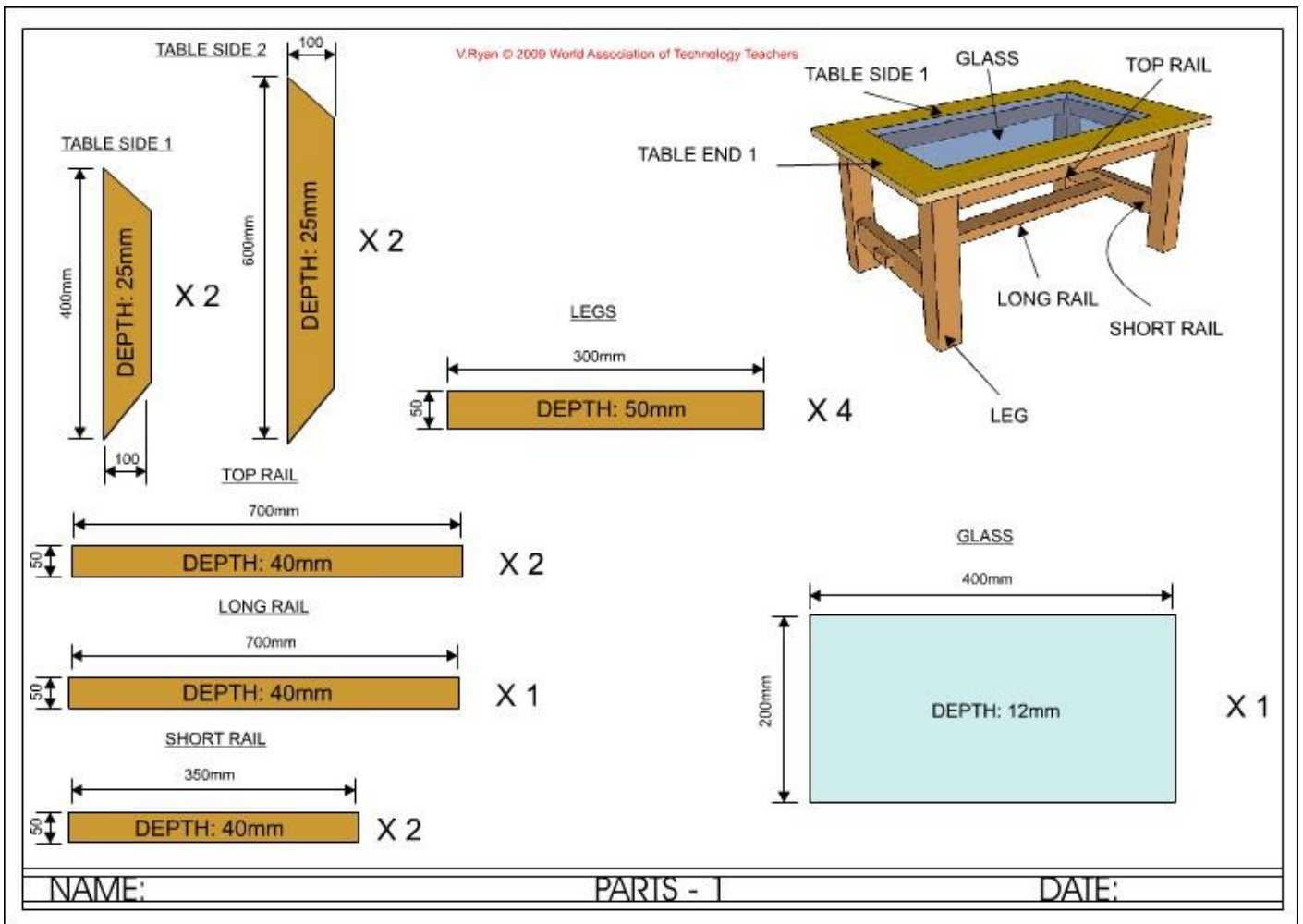
BASE LINE

THE MAZE

15
60mm

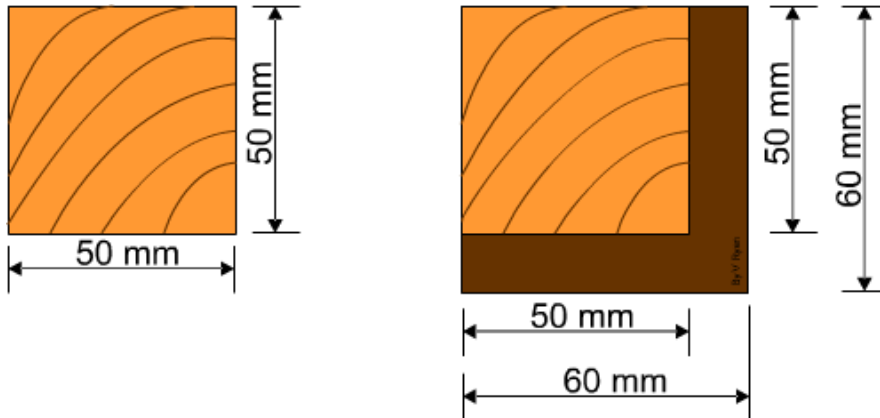
PART No	No OFF	DESCRIPTION	MATERIAL	DIMENSIONS	FINISH
1	4	SIDES	PINE	300 X 75 X 12mm	VARNISH
2	2	HINGE	BRASS	50 X 8 X 12mm	POLISHED
3	1	LID	PERSPEX	300 X 300 X 4mm	POLISHED
4	1	MAZE	MDF	270 X 270 X 12mm	PAINT
5	1	BASE	MDF	288 X 288 X 12mm	NATURAL
6					
7					
8					
9					
10					

A parts sheet displays all the parts drawn separately. Precise measurements are included. This type of planning is useful, as it is possible to see all the parts before they are put together as a working drawing. Hidden parts are seen unlike on a working drawing.



Order the correct sections and lengths.







Example 1: A length of pine is required to manufacture four legs of a table. The working drawing shows that the legs have a square section of 50mm. However, a larger section (60 x 60mm) has been ordered. This means that the section will have to be cut down on a circular saw and then planed, before it can be used for the legs.



Consequences:

- Material has been wasted.
- The large section is more expensive.
- Expensive time is wasted reducing the size of the materials.
- The table is more expensive as a result.

Timber Suppliers / prices

Company	Website
Bunnings Warehouse	https://www.bunnings.com.au
North shore Timber & Hardware	https://www.nst.net.au/#pricelist (02) 4322 1633  
Walker Brothers Timber & Building Supplies	https://walkerbros.com.au/product-category/radiata-standard/ (02) 4324 7355  
Price lists I have downloaded from the websites.	https://drive.google.com/drive/folders/1y6GhJlaDrFkBmOX-NIGrKL7dGLK7ys_P?usp=sharing  

Some price may not be on their website. You may need to call and ask. This task will help with an understanding of what it is like as a tradie ordering material.

Item No	Finished Sizes DAR	Timber Species Select	Lengths Available	Price per LM Excluding GST	Price per LM Including GST
1A	42 X 19	Radiata DAR	.900, 1.2, 1.5 1.8, 2.4 LENGTHS OR RANDOM	\$ 2.01	\$ 2.22
1B	70 X 19	Radiata DAR		\$ 3.03	\$ 3.34
1C	90 X 19	Radiata DAR		\$ 3.70	\$ 4.07
1D	140 X 19	Radiata DAR		\$ 5.60	\$ 6.16
1E	190 X 19	Radiata DAR		\$ 7.47	\$ 8.22
1F	240 X 19	Radiata DAR		\$ 10.09	\$ 11.10
1G	290 X 19	Radiata DAR		\$ 12.86	\$ 14.15
1H	30 X 30	Radiata DAR		\$ 4.21	\$ 4.63
1I	70 X 30	Radiata DAR		\$ 5.64	\$ 6.20
1J	90 X 30	Radiata DAR		\$ 7.49	\$ 8.24
1K	70 X 40	Radiata DAR		\$ 9.15	\$ 10.06
1L	90 X 40	Radiata DAR		\$ 12.15	\$ 13.37
1M	140 X 40	Radiata DAR		\$ 18.25	\$ 20.07
1N	190 X 40	Radiata DAR		\$ 33.47	\$ 36.82
1O	140 X 12	VJ Radiata Lining	RANDOM ONLY	\$ 3.04	\$ 3.35
1P	140 X 12	Radiata DAR Clear	.900 TO 2.4 Mixed Lengths 900 TO 2.4	\$ 7.70	\$ 8.47
1Q	140 X 19	Radiata DAR Clear		\$ 11.30	\$ 12.43
1R	140 X 30	Radiata DAR Clear		\$ 19.55	\$ 21.51
1S	180 X 30	Radiata DAR Clear		\$ 26.52	\$ 29.18
1T	140 X 40	Radiata DAR Clear		\$ 26.40	\$ 29.04
1U	190 X 40	Radiata DAR Clear		\$ 36.30	\$ 39.93
1V	240 X 40	Radiata DAR Clear		\$ 46.90	\$ 51.59
1W	42 X 42	Radiata DAR Clear		\$ 8.47	\$ 9.32
1X	70 X 70	Radiata DAR		\$ 16.21	\$ 17.84
1Y	90 X 90	Radiata DAR		\$ 45.38	\$ 49.91

Tasmanian Oak/Vic Ash Select Grade Dressed & Laminated

Item No	Finished Sizes DAR	Timber Species	Lengths Available	Price per LM Excluding GST	Price per LM Including GST
4A	20 X 12	Tas Oak/Vic Ash Select Dressed	Random up to 3.6m	\$3.80	\$4.18
4B	60 X 12	Tas Oak/Vic Ash Select Dressed	Random up to 3.6m	\$4.61	\$5.07
4C	90 X 12	Tas Oak/Vic Ash Select Dressed	Random up to 3.6m	\$9.29	\$10.22
4D	140 X 12	Tas Oak/Vic Ash Select Dressed	Random up to 3.6m	\$15.08	\$16.59
4E	18 X 18	Tas Oak/Vic Ash Select Dressed	Random up to 3.6m	\$2.82	\$3.10
4F	42 X 19	Tas Oak/Vic Ash Select Dressed	Random up to 3.6m	\$3.63	\$3.99
4G	65 X 19	Tas Oak/Vic Ash Select Dressed	Random up to 3.6m	\$6.65	\$7.53
4H	90 X 19	Tas Oak/Vic Ash Select Dressed	Random up to 3.6m	\$11.26	\$12.39
4I	140 X 19	Tas Oak/Vic Ash Select Dressed	Random up to 3.6m	\$18.64	\$21.61
4J	190 X 19	Tas Oak/Vic Ash Select Dressed	Random up to 3.6m	\$36.96	\$40.66
4K	65 X 32	Tas Oak/Vic Ash Select Dressed	Random up to 3.6m	\$11.99	\$13.18
4L	90 X 32	Tas Oak/Vic Ash Select Dressed	Random up to 3.6m	\$18.59	\$20.44
4M	140 X 32	Tas Oak/Vic Ash Select Dressed	Random up to 3.6m	\$30.78	\$33.86
4N	185 X 32	Tas Oak/Vic Ash Select Dressed	Random up to 3.6m	\$45.80	\$50.37
4O	42 X 42	Tas Oak/Vic Ash Select Dressed	Random up to 3.6m	\$12.36	\$13.59
4P	65 X 42	Tas Oak/Vic Ash Select Dressed	Random up to 3.6m	\$18.71	\$20.58
4Q	90 X 42	Tas Oak/Vic Ash Select Dressed	Random up to 3.6m	\$27.91	\$30.70
4R	140 X 42	Tas Oak/Vic Ash Select Dressed	Random up to 3.6m	\$46.52	\$53.38
4S	190 X 42	Tas Oak/Vic Ash Select Dressed	Random up to 3.6m	\$78.32	\$86.15
5T	235 X 19	Tas Oak/Vic Ash Select Lam Dressed	Random up to 3.6m	\$9.00	\$9.00
5U	285 X 19	Tas Oak/Vic Ash Select Lam Dressed	Random up to 3.6m	\$0.00	\$0.00
4T	240 X 33	Tas Oak/Vic Ash Select Lam Dressed	Random up to 3.6m	\$57.13	\$62.84
5W	285 X 33	Tas Oak/Vic Ash Select Lam Dressed	Random up to 3.6m	\$0.00	\$0.00
5X	240 X 43	Tas Oak/Vic Ash Select Lam Dressed	Random up to 3.6m	\$0.00	\$0.00
4U	65 X 65	Tas Oak/Vic Ash Select Lam Dressed	Random up to 3.6m	\$41.36	\$45.50
4V	90 X 90	Tas Oak/Vic Ash Select Lam Dressed	Random up to 3.6m	\$63.36	\$69.70

Jarrah Dressed Select Seasoned (Australian Product)

Item No	Dressed Sizes	Timber Species Select Seasoned	Lengths Available	Price per LM Excluding GST Dressed	Price per LM Including GST Dressed
5A	66 x 18	Jarrah	Subject	\$ 17.58	\$19.34
5B	90 x 18	Jarrah	to availability	\$ 20.99	\$23.09
5C	140 x 18	Jarrah	of lengths	\$ 35.16	\$38.68
5D	185 x 18	Jarrah		\$ 52.51	\$57.76
5E	66 x 30	Jarrah		\$ 28.73	\$31.60
5F	90 x 30	Jarrah		\$ 35.54	\$39.10
5G	120 x 30	Jarrah	Subject	\$ 23.56	\$25.92
5H	140 x 30	Jarrah	to availability	\$ 57.48	\$63.23
5I	185 x 30	Jarrah	of lengths	\$ 86.88	\$95.57
5I	40 x 40	Jarrah		\$ 23.80	\$26.18
5J	66 x 40	Jarrah	Subject	\$ 40.87	\$44.95
5K	90 x 40	Jarrah	to availability	\$ 47.60	\$52.36
5L	140 x 40	Jarrah	of lengths	\$ 81.73	\$89.91
5M	185 x 40	Jarrah		\$ 121.89	\$134.08
5N	70 x 70	Jarrah Laminated		\$ 97.06	\$106.77
5O	90 x 90	Jarrah Laminated		\$ 134.80	\$148.28

AUSTRALIAN HARDWOOD MIXED SPECIES SEASONED SELECT GRADE DRESSED

Item #	Finished Sizes DAR	Timber Species	Price per LM Excluding GST	Price per LM Including GST
6A	140 x 19	Blackbutt DAR Lengths 1.2 1.5 1.8, 2.1, 2.4 to 3.0m	\$26.69	\$29.35
6B	70 x 30	Aust. Hardwood Mixed Species Seas Lengths 1.2 1.5 1.8, 2.1, 2.4 to 3.0m	\$11.66	\$12.83
6C	90 x 30	Aust. Hardwood Mixed Species Seas Lengths 1.8, 2.1, 2.4 to 3.0m	\$15.71	\$17.28
6D	140 x 30	Aust. Hardwood Mixed Species Seas Lengths 1.8, 2.1, 2.4 to 3.0m	\$26.69	\$29.35
6E	190 x 30	Aust. Hardwood Mixed Species Seas Lengths 1.8, 2.1, 2.4 to 3.0m	\$39.64	\$43.61
6F	40 x 40	Hardwood Mixed Species Lengths 1.8, 2.1, 2.4 to 3.0m	\$12.36	\$13.60
6G	70 x 40	Aust. Hardwood Mixed Species Seas Lengths 1.8, 2.1, 2.4 to 3.0m	\$17.51	\$19.26
6H	90 x 40	Aust. Hardwood Mixed Species Seas Lengths 1.8, 2.1, 2.4 to 3.0m	\$24.71	\$27.18
6I	140 x 40	Aust. Hardwood Mixed Species Seas Lengths 1.8, 2.1, 2.4 to 3.0m	\$40.46	\$44.50
6J	190 x 40	Aust. Hardwood Mixed Species Seas Lengths 1.8, 2.1, 2.4 to 3.0m	\$60.04	\$66.04
6K	240 x 40	Aust. Hardwood Mixed Species Seas Lengths 1.8, 2.1, 2.4 to 3.0m	\$81.97	\$90.17
6L	290 x 40	Aust. Hardwood Mixed Species Seas Lengths 1.8, 2.1, 2.4 to 3.0m	\$123.44	\$135.79
6M	88 x 88	Blackbutt Laminated DAR	\$67.65	\$74.42

QUESTIONS:

1. Using the internet, find a wood suppliers.
2. Identify the different sections available for pine boards.
3. List the prices of the various sections you found in question 2.
4. Find the prices of the same or similar sections in two other types of natural woods.

Wood 1

Pine Section	Price	
	P/m	Total
Legs (radiata pine 70 x 70)	\$17.84 per metre including GST	\$21.40 for the total material
Top Rail		
Long Rail		
Short Rail		
Table Side		

_____ Section	Price	
	P/m	Total
Legs		
Top Rail		
Long Rail		
Short Rail		
Table Side		

_____ Section	Price	
	P/m	Total
Legs		
Top Rail		
Long Rail		
Short Rail		
Table Side		