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WORKING DOGS
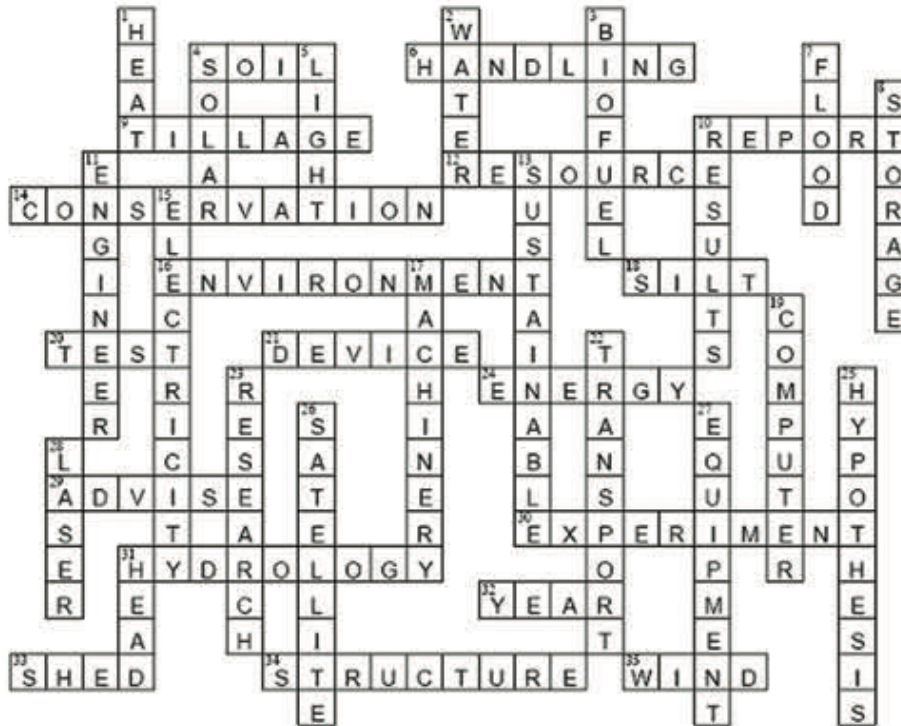- Activity 19.2 Find-a-word

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AGRICULTURAL ENGINEER

Activity 1.1 and 1.2 Crossword ANSWERS

ACROSS:
4.SOIL 6.HANDLING 9.TILLAGE 10.REPORT 12.RESOURCE 14.CONSERVATION
16.ENVIRONMENT 18.SILT 20.TEST 21.DEVICE 24.ENERGY 29.ADVISE
30.EXPERIMENT 31.HYDROLOGY 32.YEAR 33.SHED 34.STRUCTURE 35.WIND

DOWN:
1.HEAT 2.WATER 3.BIOFUEL 4.SOLAR 5.LIGHT 7.FLOOD 8.STORAGE
10.RESULTS 11.ENGINEER 13.SUSTAINABLE 15.ELECTRICITY 17.MACHINERY
19.COMPUTER 22.TRANSPORT 23.RESEARCH 25.HYPOTHESIS 26.SATELLITE
27.EQUIPMENT 28.LASER 31.HEAD

WORDLIST

ADVISE	BIOFUEL	COMPUTER
CONSERVATION	DEVICE	ELECTRICITY
ENERGY	ENGINEER	ENVIRONMENT
EQUIPMENT	EXPERIMENT	FLOOD
HANDLING	HEAD	HEAT
HYDROLOGY	HYPOTHESIS	LASER
LIGHT	MACHINERY	REPORT
RESEARCH	RESOURCE	RESULTS
SATELLITE	SHED	SILT
SOIL	SOLAR	STORAGE
STRUCTURE	SUSTAINABLE	TEST
TILLAGE	TRANSPORT	WATER
WIND	YEAR	

AGRICULTURAL ENGINEER

Activity 1.3 Find-a-Word ANSWERS

WORDLIST

ADVISE	BIOFUEL	COMPUTER	CONSERVATION
DEVICE	ELECTRICITY	ENERGY	ENGINEER
ENVIRONMENT	EQUIPMENT	EXPERIMENT	FLOOD
HANDLING	HEAD	HEAT	HYDROLOGY
HYPOTHESIS	LASER	LIGHT	MACHINERY
REPORT	RESEARCH	RESOURCE	RESULTS
SATELLITE	SHED	SILT	SOIL
SOLAR	STORAGE	STRUCTURE	SUSTAINABLE
TEST	TILLAGE	TRANSPORT	WATER
WIND	YEAR		

AGRICULTURAL SCIENTIST

Activity 2.1 and 2.2 Crossword ANSWERS
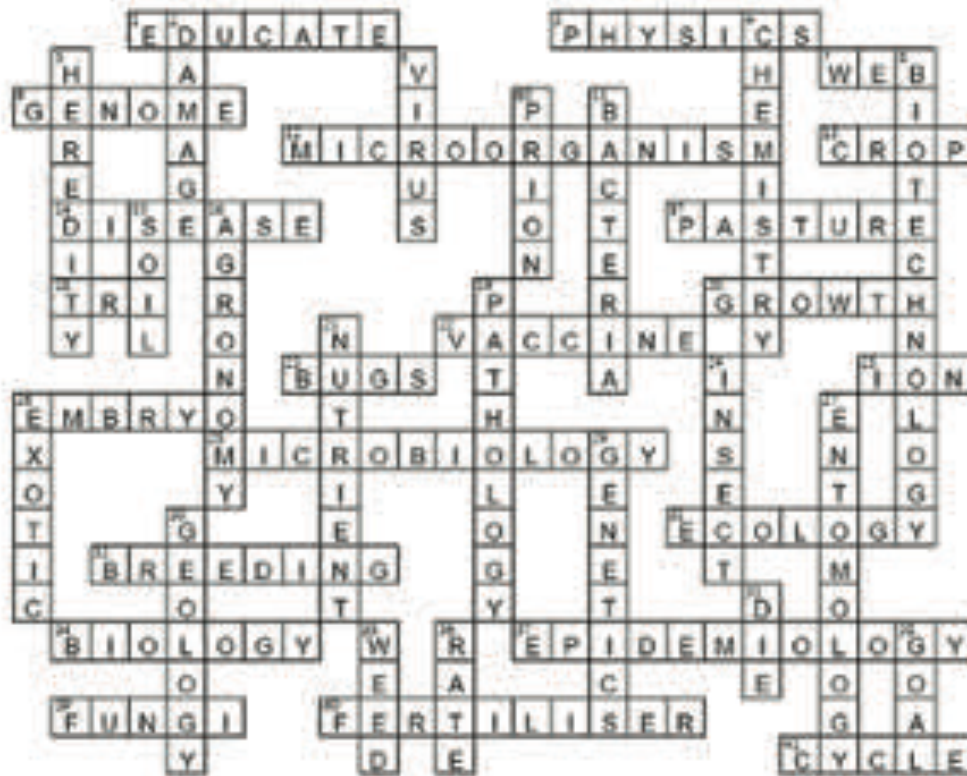
ACROSS
1.EDUCATE 3.PHYSICS 7.WEB 9.GENOME 12.MICROORGANISM 13.CROP
14.DISEASE 17.PASTURE 18.TRI 20.GROWTH 22.VACCINE 23.BUGS 25.ION
26.EMBRYO 28.MICROBIOLOGY 31.ECOLOGY 32.BREEDING 34.BIOLOGY
37.EPIDEMIOLOGY 39.FUNGI 40.FERTILISER 41.CYCLE

DOWN
2.DAMAGE 4.CHEMISTRY 5.HEREDITY 6.VIRUS 8.BIOTECHNOLOGY 10.PRION
11.BACTERIA 15.SOIL 16.AGRONOMY 19.PATHOLOGY 21.NUTRIENT 24.INSECT
26.EXOTIC 27.ENTOMOLOGY 29.GENETICS 30.GEOLOGY 33.DIE 35.WEED
36.RATE 38.GOAL

WORDLIST

AGRONOMY	BACTERIA	BIOLOGY
BIOTECHNOLOGY	BREEDING	BUGS
CHEMISTRY	CROP	CYCLE
DAMAGE	DIE	DISEASE
ECOLOGY	EDUCATE	EMBRYO
ENTOMOLOGY	EPIDEMIOLOGY	EXOTIC
FERTILISER	FUNGI	GENETICS
GENOME	GEOLOGY	GOAL
GROWTH	HEREDITY	INSECT
ION	MICROBIOLOGY	MICROORGANISM
NUTRIENT	PASTURE	PATHOLOGY
PHYSICS	PRION	RATE
SOIL	TRI	VACCINE
VIRUS	WEB	WEED

AGRICULTURAL SCIENTIST

Activity 2.3 Find-a-Word ANSWERS

												G	E	O	L	O	G	Y			
	E	I	D						F	E	R	T	I	L	I	S	E	R		E	G
P	M	S	I	N	A	G	R	O	O	R	C	I	M		B	U	G	S		R	O
R				B	A	C	T	E	R	I	A						N		Y	U	A
I				W	E	E	D							O		G	T	L		E		E
O			M	I	C	R	O	B	I	O	L	O	G	Y	I		O	S		T	Y	N
N	B		Y	R	T	S	I	M	E	H	C				L	A		P		A	G	I
	I	I						G				O	P		G	A		A	C	O	C
W		R	O				F			N		N		S	E	T	E		G	U	L	C
E		T	L			U	Y		I		H		O	N	H	S		C	R	D	O	A
B				O		N	G		D	C		I	O	O	A		I		O	E	I	V
		C	S	C	G	S	G	O		E		L	M	L	E		T		N		M
E	R		Y	U	C	Y	I	L	T	E		E	O	S		O		O		E
O	M	C		I	R			O		R		G	I		X			M	D
P		L	B	T			I	I	C		B	Y	D		E				Y	I
E		E	R			B	V	E					S	C	I	S	Y	H	P	P
	N			Y	T	C	E	S	N	I	G	R	O	W	T	H		R	A	T	E	E
E				O				Y	G	O	L	O	M	O	T	N	E	
G										T	N	E	I	R	T	U	N	
			H	E	R	E	D	I	T	Y				E	G	A	M	A	D

WORDLIST

AGRONOMY	BACTERIA	BIOLOGY	BIOTECHNOLOGY
BREEDING	BUGS	CHEMISTRY	CROP
CYCLE	DAMAGE	DIE	DISEASE
ECOLOGY	EDUCATE	EMBRYO	ENTOMOLOGY
EPIDEMIOLOGY	EXOTIC	FERTILISER	FUNGI
GENETICS	GENOME	GEOLOGY	GOAL
GROWTH	HEREDITY	INSECT	ION
MICROBIOLOGY	MICROORGANISM	NUTRIENT	PASTURE
PATHOLOGY	PHYSICS	PRION	RATE
SOIL	TRI	VACCINE	VIRUS
WEB	WEED		

BUSINESS LOAN

Activity 3.1 Maths Activity ANSWERS

Option	Term (Years)	Interest Rate	Monthly Repayments $	No. of Months	Total value of loan $
1	20	9%	2,700	240	648,000
2	15	8%	2,868	180	516,240
3a	5	8.5%	2,955	60	177,300
	10	10%	3225	120	387,000
				Total 3a	564,300
3b	5	8.5%	2955	60	177,300
	10	7%	2697	120	323,640
				Total 3b	500,940

BUSINESS LOAN

Activity 3.2 Find-a-Word ANSWERS

		E	E	F	L	A	G	E	L	A	F						T	I	S	O	P	E	D
						M	D			E	C					T	S	E	R	E	T	N	I
						R	E			C	E	G	A	G	T	R	O	M	T	P		
						S	O	P		O	C	H	E	Q	U	E	A	A	R		
I	N	S	T	A	L	M	E	N	T	F	R		S	U	N				R	X	I	L
N	O	I	N	U	T	I	D	E	R	C	N	E		T	N	O			G	A	N	A
	M	A	T	U	R	I	T	Y		Y	O	C		N	T	I			I	T	C	N
B	A	L	A	N	C	E	S	H	E	E	T	T	I	I	R	E	K	T	N	I	I	D
			N		T					I	T	A	O	M	E	A		O	P	T
			I	B	N					K		R	A	T	T	E	L	N	A	A
E			A	A	E				N		U	C	I	I	S	P	F	L	X
C	N	E		G	N	M				A		C	I	O	D	U	I	N		D
N	A	X	M	L	K	Y		S	T	E	S	S	A	B		E	L	N	E	J	N	I	E
A	O	I	U	A	R	A			E	S	T	A	T	E		S	P		R	D	G	F
N	L	T	I	T	U	P		E	T	A	R	T	S	E	R	E	T	N	I	P		C	A	A
I	E	F	M	I	P	B	U	I	L	D	I	N	G	S	O	C	I	E	T	Y	A		U
F	M	E	E	P	T	N	A	O	L				E	C	N	A	N	I	F		L
E	O	E	R	A	C		E	Q	U	I	T	Y		T	I	D	E	R	C		T
R	H		P	C	Y		E	C	N	A	R	U	S	N	I		T	B	E	D
			O	V	E	R	D	R	A	F	T	D	E	B	T	O	R

WORDLIST

ACCOUNTKEEPING	ADJUSTMENTS	APPLICATIONFORM	ASSETS
BALANCESHEET	BANK	BANKRUPTCY	BUILDINGSOCIETY
CAPITALGAIN	CHEQUE	CREDIT	CREDITOR
CREDITUNION	DEBT	DEBTOR	DEFAULT
DEPOSIT	DEPRECIATION	EQUITY	ESTATE
EXITFEE	FEES	FINANCE	HOMELOAN
INFLATION	INSTALMENT	INSURANCE	INTEREST
INTERESTRATE	LANDTAX	LEGALFEE	LOAN
MARGIN	MATURITY	MORTGAGE	OVERDRAFT
PAYMENT	PREMIUM	PRINCIPAL	REFINANCE
SECURITY	TAXATION		

australian wool
innovation
limited

mla

CLOTHING PRODUCTION

Activity 4.1 and 4.2 Crossword ANSWERS
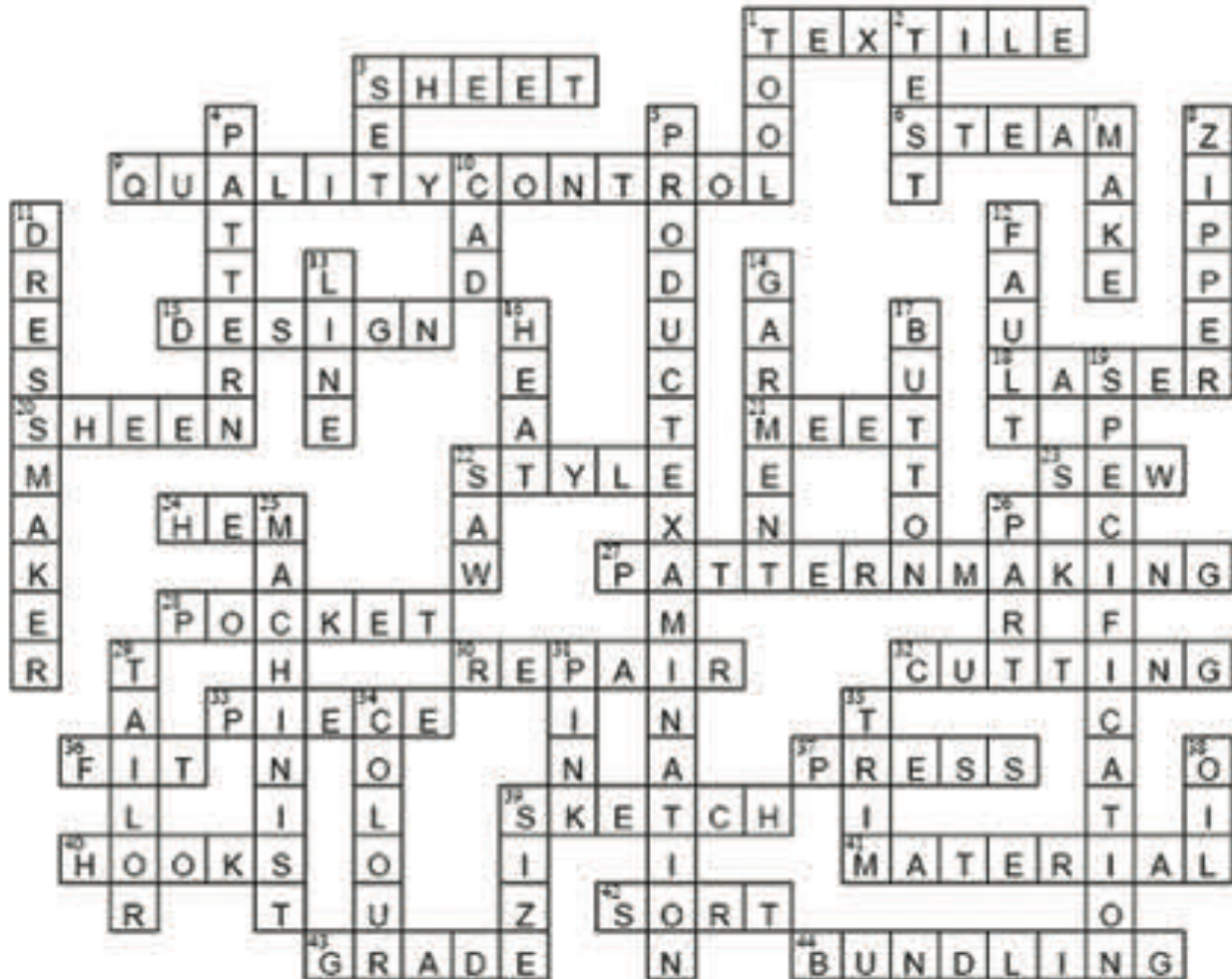
ACROSS:
1.TEXTILE 3.SHEET 6.STEAM 9.QUALITYCONTROL 15.DESIGN 18.LASER
20.SHEEN 21.MEET 22.STYLE 23.SEW 24.HEM 27.PATTERNMAKING 28.POCKET
30.REPAIR 32.CUTTING 33.PIECE 36.FIT 37.PRESS 39.SKETCH 40.HOOKS
41.MATERIAL 42.SORT 43.GRADE 44.BUNDLING

DOWN:
1.TOOL 2.TEST 3.SET 4.PATTERN 5.PRODUCTEXAMINATION 7.MAKE 8.ZIPPER
10.CAD 11.DRESSMAKER 12.FAULT 13.LINE 14.GARMENT 16.HEAT 17.BUTTON
19.SPECIFICATION 22.SAW 25.MACHINIST 26.PART 29.TAILOR 31.PINK
34.COLOUR 35.TRIM 38.OIL 39.SIZE

CLOTHING PRODUCTION

Activity 4.3 Find-a-Word ANSWERS

WORDLIST

BUNDLING	BUTTON	CAD	COLOUR
CUTTING	DESIGN	DRESSMAKER	EXAMINATION
FAULT	FIT	GARMENT	GRADE
HEAT	HEM	HOOKS	LASER
LINE	MACHINIST	MAKE	MATERIAL
MEET	OIL	PART	PATTERN
PATTERNMAKING	PIECE	PINK	POCKET
PRESS	PRODUCT	QUALITYCONTROL	REPAIR
SAW	SET	SEW	SHEEN
SHEET	SIZE	SKETCH	SORT
STEAM	STYLE	TAILOR	TEST
TEXTILE	TOOL	TRIM	ZIPPER

COOKING METHODS

Activity 5.1 Mix-and-Match ANSWERS

DESCRIPTION	COOKING METHOD
Immerse meat in boiling liquid then remove very quickly	BLANCH
Cook with short wave radiation	MICROWAVE
Cook meat quickly with diced vegetables in a small amount of oil in a pan or wok	STIR-FRY
Cook with dry heat in an oven, usually with added fat or oil	ROAST
Cook with dry heat in an oven	BAKE
Cook quickly with radiant heat	GRILL
Cook in very hot liquid	BOIL
Cook in steam from boiling liquid	STEAM
Cook in small amount of fat or oil in a pan	FRY
Cook in an enclosed container in an oven with liquid that will be dished up with the meat	CASSEROLE
Cook in a pan with liquid that will be dished up with the meat	STEW
Cook gently in a liquid made from milk, water or stock	POACH
Cook by immersion in hot fat or oil	DEEP FRY
Cook at high temperatures under pressure in a sealed pot	PRESSURE COOK
Boil gently	SIMMER
Cook with meat half covered with liquid	BRAISE

COOKING METHODS

Activity 5.2 Find-a-Word ANSWERS

C			E	W						C	O	L	A	N	D	E	R				
	H	L	H						R	E	K	O	O	C	E	R	U	S	S	E	R	P
	D	I	P				J				S	R	O	S	S	I	C	S			
	A	S	U	N				A			R	E	C	I	L	S	E	S	E	E	H	C	R
L	K	C		R	O				R	F	R	Y	I	N	G	P	A	N				E
			E	I		R	E	V	R	A	C	T			S				S		T
				I	S	A	U	C	E	R		E		C	A			C		T	F
	H	S	I	D		R					L		R	U			O		E	I
G	R	A	T	E	R		R	F	T			L		U	C			R		A	L
	T	E	A	P	O	T		E	P	O			A		E	E		E		M	G
	N	S	L				E	N	E	N		M		T	P	C		R	T	E	B	G
	F	O	T	I		E			E	E	G	T		A	L	J	E	O	R	O	E
E	O		O	E	O	L			P	D	S	A		T	N	E	U	N	P		T
L	R		P	E	B				O		E		O	E	A	G	I	K		T
T	K		R	S	L					N	M		A	G	V		A	C		L
T											A		S	G	E		R	O		E
E	S	K	I	M	M	E	R		E	F	I	N	K		C	T	C	R		T	T
K	D			L	W	O	B							E	U		S	S
	I							S	P	I	D	E	R	P	P	L	A	T	E
		L											T	O	P

WORDLIST

BOILER	BOTTLE	BOWL	CANOPENER
CARVER	CHEESESLICER	CHINOIS	CLEAVER
COLANDER	CORER	CRUET	CUP
DEEPFRIER	DISH	EGGCUP	EGGLIFTER
FORK	FRYINGPAN	GRATER	JAR
JUG	KETTLE	KNIFE	LADLE
LID	MEATMALLET	PEELER	PLATE
POT	PRESSURECOOKER	SAUCEPAN	SAUCER
SCISSORS	SKIMMER	SPIDER	SPOON
STEAMER	STEEL	STOCKPOT	STRAINER
TEAPOT	TOASTER	TONGS	WHISK

FARMHAND

Activity 6.1 and 6.2 Crossword ANSWERS
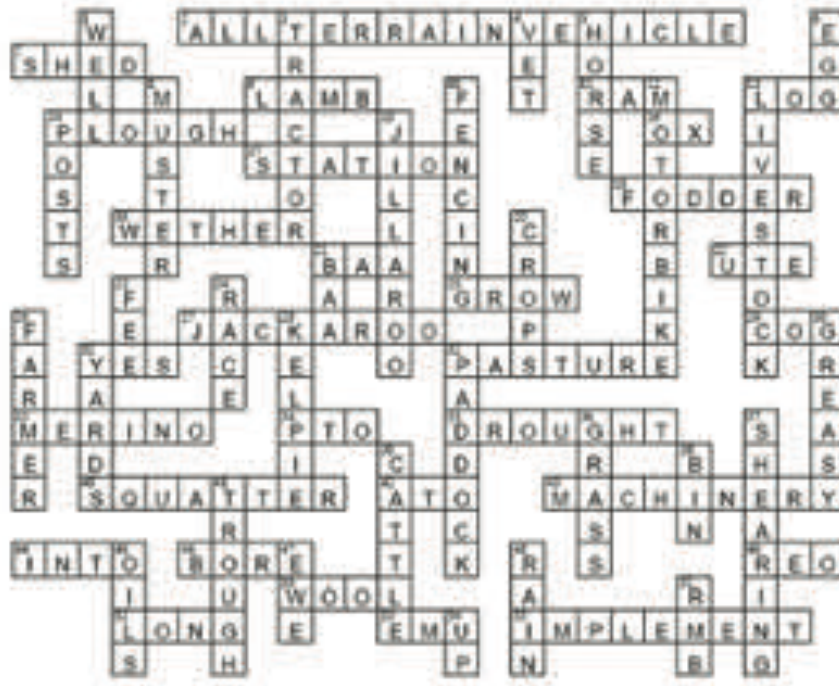
ACROSS
2.ALLTERRAINVEHICLE 7.SHED 8.LAMB 11.RAM 13.LOG 14.PLOUGH 16.OX
17.STATION 18.FODDER 19.WETHER 21.BAA 22.UTE 25.GROW 27.JACKAROO
29.COG 31.YES 32.PASTURE 33.MERINO 34.PTO 35.DROUGHT 40.SQUATTER
42.ATO 43.MACHINERY 44.INTO 46.BORE 49.REO 50.WOOL 52.LONG 53.EMU
55.IMPLEMENT

DOWN
1.WELL 3.TRACTOR 4.VET 5.HORSE 6.EGG 8.MUSTER 10.FENCING
12.MOTORBIKE 13.LIVESTOCK 14.POSTS 15.JILLAROO 20.CROPS 21.BAA
23.FEE 24.RACE 26.FARMER 28.KELPIE 30.GREASY 31.YARDS 32.PADDOCK
36.GRASS 37.SHEARING 38.CATTLE 39.BIN 41.TROUGH 45.OILS 47.EWE
48.RAIN 51.RMB 54.UP

WORDLIST

ALLTERRAINVEHICLE	ATO	BAA
BAA	BIN	BORE
CATTLE	COG	CROPS
DROUGHT	EGG	EMU
EWE	FARMER	FEE
FENCING	FODDER	GRASS
GREASY	GROW	HORSE
IMPLEMENT	INTO	JACKAROO
JILLAROO	KELPIE	LAMB
LIVESTOCK	LOG	LONG
MACHINERY	MERINO	MOTORBIKE
MUSTER	OILS	OX
PADDOCK	PASTURE	PLOUGH
POSTS	PTO	RACE
RAIN	RAM	REO
RMB	SHEARING	SHED
SQUATTER	STATION	TRACTOR
TROUGH	UP	UTE
VET	WELL	WETHER
WOOL	YARDS	YES

FARMHAND

Activity 6.3 Find-a-Word ANSWERS

WORDLIST

ALLTERRAINVEHICLEATO		BAA	BAA
BIN	BORE	CATTLE	COG
CROPS	DROUGHT	EGG	EMU
EWE	FARMER	FEE	FENCING
FODDER	GRASS	GREASY	GROW
HORSE	IMPLEMENT	INTO	JACKAROO
JILLAROO	KELPIE	LAMB	LIVESTOCK
LOG	LONG	MACHINERY	MERINO
MOTORBIKE	MUSTER	OILS	OX
PADDOCK	PASTURE	PLOUGH	POSTS
PTO	RACE	RAIN	RAM
REO	RMB	SHEARING	SHED
SQUATTER	STATION	TRACTOR	TROUGH
UP	UTE	VET	WELL
WETHER	WOOL	YARDS	YES

FENCING

Activity 7.1 Maths Activity - A Fencing Job ANSWERS

1. Scale drawing should be a square, 10cm x 10cm

2. Length of each side of the paddock = 100m
Length of fence = 4 x 100 = 400m

3. The gate should be positioned in a corner to limit the number of strainer posts to 5 and to allow the easiest movement of stock in and out of the paddock.

4.   a. Five (5) strainer posts will be needed, one at each corner and one on the other side of the gate.

   b. 24 fence posts are needed per side = 96 posts
      Less one post for the gate strainer = 95 posts

   c. Length of side of paddock = 100m

       For 3 sides length of each wire = 102m
       Length of wire needed for 3 sides = 3 x 5 wires x 102m = 1,530m of wire
       For 4th side (with gateway) length of each wire = 98m
       Length of wire needed = 5 x 98m = 490m of wire
       Total length of wire = 1,530 + 490 = 2,020m

   d. No. rolls of wire = 2,020 / 500 = 4.04 but 5 rolls are required

   Note - Most contractors will have unfinished rolls of wire from previous jobs to use where short lengths are needed.

5.   a. Cost of fence = 400m x $10/metre = $4,000
   b. GST = $4,000 x 10% = $400
   c. Total cost of fence = $4,000 + $400 = $4,400

FENCING

Activity 7.1 Maths Activity - A Fencing Job ANSWERS

Extension problems for keen fencers and mathematicians

1.

MATERIAL	COST PER UNIT	NO. OF UNITS	TOTAL COST
Strainer Post	$20.00	5	$100.00
Stay	$12.00	9	$108.00
Fence Post	$8.00	95	$760.00
Roll of high tensile barbwire	$70.00	4	$280.00
Gate (3.6m) and fittings	$120.00	1	$120.00
		TOTAL COST	$1,368.00

2. GST = $1,368 / 11 = $124.36
Cost of materials excluding GST = $1,368.00 – 124.36 = $1,243.64

3. Profit from fencing job (less overheads) = $4,000.00 - $1,243.64 = $2,576.36
Note – Profit is always calculated excluding GST

FENCING

Activity 7.2 Find-a-Word ANSWERS

S	R	E	N	I	A	R	T	S	G	N	I	C	N	E	F								
													E	R	I	W	N	I	A	L	P		
S	S	Y	A	T	S		R						W										R
R					E	W	I	R	E	V	I	C	E	A							C		E
E				P	E			R	E	M	M	A	R		S					L	E		R
T	S			P			R		L	L	I	R	D			N			A		R		O
T		R	O					I	N	E	T	T	I	N	G			I	W		I	S	B
U		R	E				D	W		T	I	E	W	I	R	E	H	A	S		W	P	E
C	D		S	I	A	U	G	E	R	E	K	C	U	R	T		A		E	H	D	I	L
E	T	R	T		L		L			I	L				M		L			C	E	R	O
D	N	E	E		P	S	E	E		V	I			M		P				B	I	H
I	I	N	K			R	E	V	R		E	S	E		A			K		R	T	T
S	O	N	C			E	C	L	O	I		R	N	T				C	S	A	L	S
	J	I	I			R	R		P	H	W		S	E				O	T	B	E	O
	E	P	P			O	O			P	S	D			T			L	S	A	V	P
	G	S	R			B	W				I		E			H		G	O	W	E	
	N	E	A			M	B				R		B				G	N	P	O	L	
	I	R	T			O	A					G		R				I		I		
	H	I	S			T	R								A		R	H				
		W		S	T	R	A	I	N	E	R	P	O	S	T			B				

WORDLIST

ATOMBORER	AUGER	BARBEDWIRE	CHAINSAW
CLAWHAMMER	CROWBAR	DRILL	DRIVER
DROPPER	FENCINGSTRAINERS	GRIPPLES	HIGHTENSILEWIRE
HINGEJOINT	IOWABARBEDWIRE	NETTING	PLAINWIRE
PLIERS	POSTHOLEBORER	POSTS	RAMMER
RINGLOCK	SHOVEL	SIDECUTTERS	SPIRITLEVEL
STAPLES	STARPICKETS	STAYS	STRAINERPOST
TIEWIRE	TRUCK	WIRESPINNER	WIREVICE

INVESTMENT

Activity 8.2 Find-a-Word ANSWERS

						C	A	S	H	M	A	N	A	G	E	M	E	N	T			
	T		N	O	I	T	C	U	D	E	D		B		E	R	U	T	N	E	B	E	D
D	E	P	R	E	C	I	A	T	I	O	N	A	P	R	I	N	C	I	P	A	L	
N	R		D	E	P	O	S	I	T		L	S	E	R	U	T	U	F				
O	M	S	E	R	A	H	S		B	A		D				S						
I	D			C			A	N		N		N	O	I	T	A	L	F	N	I		X
T	E				H	N	C	C	O	M	P	O	U	N	D			A			A	
A	P			T	K	E		B				E	P	I	H	C	E	U	L	B		T
X	O		S	R	D	S	Q				M			D			L					E
A	S		U	U	F	T		U		L	B	D	L	L			O				M	
T	I	R	P	U	N	R		E	A	U	N	E	L	T			R	E		O	
	T	T	N	E		E			T	L	E	I	I	I			D	T		C	
	C	D	M		K		S	L	D	Y	W	D	E	M	O	C	N	I	I	A	E	N
Y		Y			O		N	M	I		E						N	D	S	I	
	A		S		R	I	A	V		R						A	I	T		
P			T	D	B	R	I		C	S	T	A	M	P	D	U	T	Y	R	U	A	
		A		N	K	D				A	S	S	E	T	S		I	Q	T	
		O	E	U			R	O	T	A	L	U	C	E	P	S	E	I	E	
		L	T		F		B	E	A	R	M	A	R	K	E	T		S	L	
		F	N	I	A	G	L	A	T	I	P	A	C	Y	T	I	L	I	B	A	I	L

WORDLIST

ALLORDINARIES	ASSETS	BALANCEDFUND	BANKRUPTCY
BEARMARKET	BLUECHIP	BOND	BROKER
BULLMARKET	CAPITALGAIN	CASHMANAGEMENT	CHEQUE
COMPOUND	CREDIT	DEBENTURE	DEDUCTION
DEPOSIT	DEPRECIATION	DIVIDEND	ESTATE
FLOAT	FUNDS	FUTURES	INCOME
INCOMETAX	INFLATION	INSTALMENTS	LIABILITY
LIQUIDATE	PAYMENTS	PRINCIPAL	SHARES
SPECULATOR	STAMPDUTY	TAXATION	TERMDEPOSIT
TRUST	WILL	YIELD	

JOBS IN THE SHEARING SHED

Activity 9.1 Mix-and-Match ANSWERS

DESCRIPTION	JOB
Writing details about the wool bales in the wool book	RECORDING
Spreading the fleece on the wool table	THROWING
Removing wool from the breech area of the sheep and around the eyes	CRUTCHING
Removing the fleece from each sheep	SHEARING
Removing inferior wool from the fleece	SKIRTING
Placing a special label on each wool bale	BRANDING
Cleaning the shed and storing equipment	CUT-OUT
Measuring the weight of each bale	WEIGHING
Lining up the wool bales at the end of the shed	STORING
Inspecting each fleece to determine its type	CLASSING
Forcing wool into a bale	PRESSING
Collecting the shorn fleece from the board	PICKING UP
Cleaning the shed, minor repairs and watering yards	SHED PREPARATION
Moving sheep into catching pens	PENNING UP
Bundling the fleece in the correct way	ROLLING

JOBS IN THE SHEARING SHED

Activity 9.2 Find-a-Word ANSWERS

WORDLIST

BALE	BIN	BOARD	BRAND
BREECH	BROOM	BUTT	CATCH
CLASS	CLASSER	CLEAN	CLIP
COMB	CONTRACTOR	CRUTCHING	CUTOUT
CUTTER	DOWNTUBE	FASTEN	FLEECE
FLOCK	GRIND	HANDPIECE	HARVEST
INK	PENUP	PICKUP	PRESS
PRESSER	ROLL	SCALES	SHARPEN
SHEARER	SHEARING	SHEARS	SHED
SHEEP	SKIRT	STAND	STORE
SWEEP	TEAM	THROW	WAGE
WEIGH	WOOL	YARDS	

LANDCARE

Activity 10.2 Find-a-Word ANSWERS

M	O	U	N	T	A	I	N	A	S	H	H	S	U	B	S	A	M	T	S	I	R	H	C	
		H	A	R	R	A	J			X	O	B	E	L	B	M	I	B						
M			K	U	R	R	A	J	O	N	G		C	Y	P	R	E	S	S	P	I	N	E	E
	U				G	R	A	S	S	T	R	E	E								C		E
		L	C	O	O	L	I	B	A	H	D	O	O	W	E	S	O	R			H		B	L
		G			H	C	E	E	B	C	I	T	C	R	A	T	N	A	E	S		R	L
			A	B	U	N	Y	A	P	I	N	E	B					E	M	T		U	A
K	R	A	B	N	O	R	I		H	E	X		L		R	H	S		U	R		S	M
	B	A	B	O	A	B		O	L	O		A	M		E	U	E	B	G	G	I	D	H
S		H			O	T	B		C	U		D	O	T	M	L	N	D	N	O	B	T
I		S		P	T	W		K	G		C	N	R		A	A	O	E	G	O	O	T
L	C	U		P	A	O	D	W	T		E	P	E	M		H	C	D	R	Y	W	X	U
K	O	R		I	W	L		O	S		D	I	E	U	B	H	O	K	N	R	B	H		B
Y	R	B	N		L		O	O		A	N		G	A	A		G	B	A	E	A	C		K
O	K	E		E		D	H	W	R	E		W	N	T		A	E	U	V	R	A		C
A	W	L	Y			G		D			O	K	A			N	A	Q	I	K	O		A
K	O	T	H	A	K	E	A	O		N	S	R			Y	N		R		C		L
	O	T					O	S	I	A		M	L	A	P	W	O	L	A	G	N	A	B
	D	O					L	A	W		F	L	O	O	D	E	D	G	U	M	
		B					B		G	I	F	Y	A	B	N	O	T	E	R	O	M	

WORDLIST

ANTARCTICBEECH	BANGALOWPALM	BANKSIA	BAOBAB
BIMBLEBOX	BLACKBEAN	BLACKBUTT	BLACKWOOD
BLOODWOOD	BOTTLEBRUSH	BRUSHBOX	BUNYAPINE
CHEESETREE	CHRISTMASBUSH	COACHWOOD	COOLIBAH
CORKWOOD	CYPRESSPINE	FLOODEDGUM	GHOSTGUM
GRASSTREE	HAKEA	HOOPPINE	HUONPINE
IRONBARK	JARRAH	KURRAJONG	MAHOGANY
MALLEE	MORETONBAYFIG	MOUNTAINASH	MULGA
QUANDONG	REDCEDAR	RIVERREDGUM	ROSEWOOD
SILKYOAK	SNOWGUM	STRINGYBARK	WARATAH
WATTLE	YELLOWBOX		

MECHANIC

Activity 11.1 and 11.2 Crossword ANSWERS
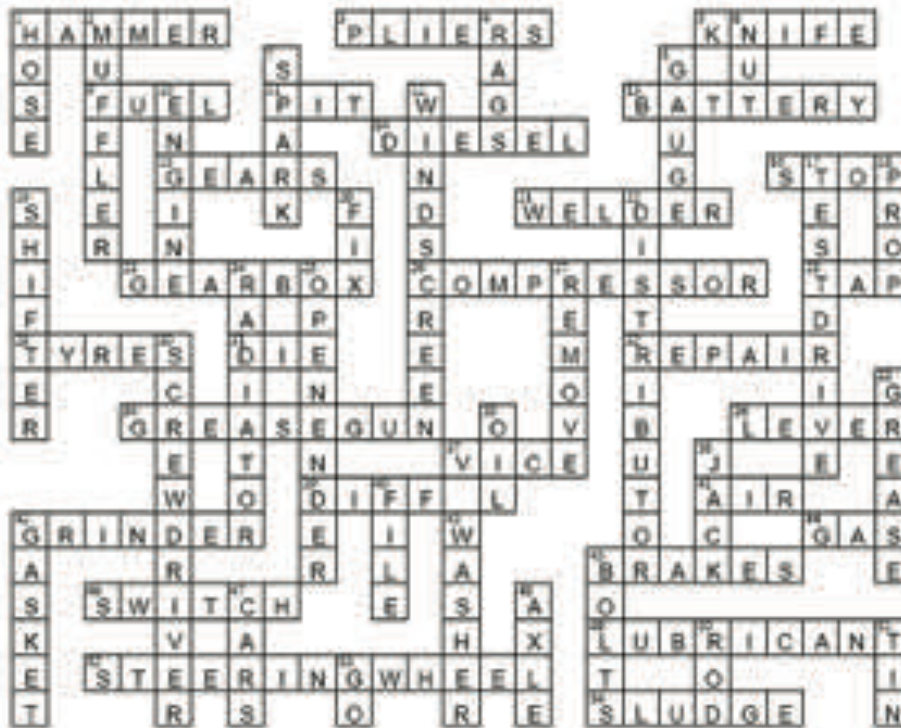
ACROSS:
1.HAMMER 3.PLIERS 5.KNIFE 9.FUEL 11.PIT 13.BATTERY 14.DIESEL 15.GEARS 16.STOP 21.WELDER 23.GEARBOX 26.COMPRESSOR 28.TAP 29.TYRES 31.DIE 32.REPAIR 34.GREASEGUN 36.LEVER 37.VICE 39.DIFF 41.AIR 43.GRINDER 44.GAS 45.BRAKES 46.SWITCH 49.LUBRICANT 52.STEERINGWHEEL 54.SLUDGE

DOWN:
1.HOSE 2.MUFFLER 4.RAGS 6.NUT 7.SPARK 8.GAUGE 10.ENGINE 12.WINDSCREEN 17.TESTDRIVE 18.PROP 19.SHIFTER 20.FIX 22.DISTRIBUTOR 24.RADIATOR 25.OPENENDER 27.REMOVE 30.SCREWDRIVER 33.GREASE 35.OIL 38.JACK 40.FILE 42.GASKET 43.WASHER 45.BOLTS 47.CARS 48.AXLE 50.ROD 51.TIN 53.GO

WORDLIST

AIR	AXLE	BATTERY
BOLTS	BRAKES	CARS
COMPRESSOR	DIE	DIESEL
DIFF	DISTRIBUTOR	ENGINE
FILE	FIX	FUEL
GAS	GASKET	GAUGE
GEARBOX	GEARS	GO
GREASE	GREASEGUN	GRINDER
HAMMER	HOSE	JACK
KNIFE	LEVER	LUBRICANT
MUFFLER	NUT	OIL
OPENENDER	PIT	PLIERS
PROP	RADIATOR	RAGS
REMOVE	REPAIR	ROD
SCREWDRIVER	SHIFTER	SLUDGE
SPARK	STEERINGWHEEL	STOP
SWITCH	TAP	TESTDRIVE
TIN	TYRES	VICE
WASHER	WELDER	WINDSCREEN

MECHANIC

Activity 11.3 Find-a-Word ANSWERS

WORDLIST

AIR	AXLE	BATTERY	BOLTS
BRAKES	CARS	COMPRESSOR	DIE
DIESEL	DIFF	DISTRIBUTOR	ENGINE
FILE	FIX	FUEL	GAS
GASKET	GAUGE	GEARBOX	GEARS
GO	GREASE	GREASEGUN	GRINDER
HAMMER	HOSE	JACK	KNIFE
LEVER	LUBRICANT	MUFFLER	NUT
OIL	OPENENDER	PIT	PLIERS
PROP	RADIATOR	RAGS	REMOVE
REPAIR	ROD	SCREWDRIVER	SHIFTER
SLUDGE	SPARK	STEERINGWHEEL	STOP
SWITCH	TAP	TIN	TYRES
VICE	WASHER	WELDER	WINDSCREEN

POINTS OF RAM

Activity 12.1 Find-a-Word ANSWERS

WORDLIST

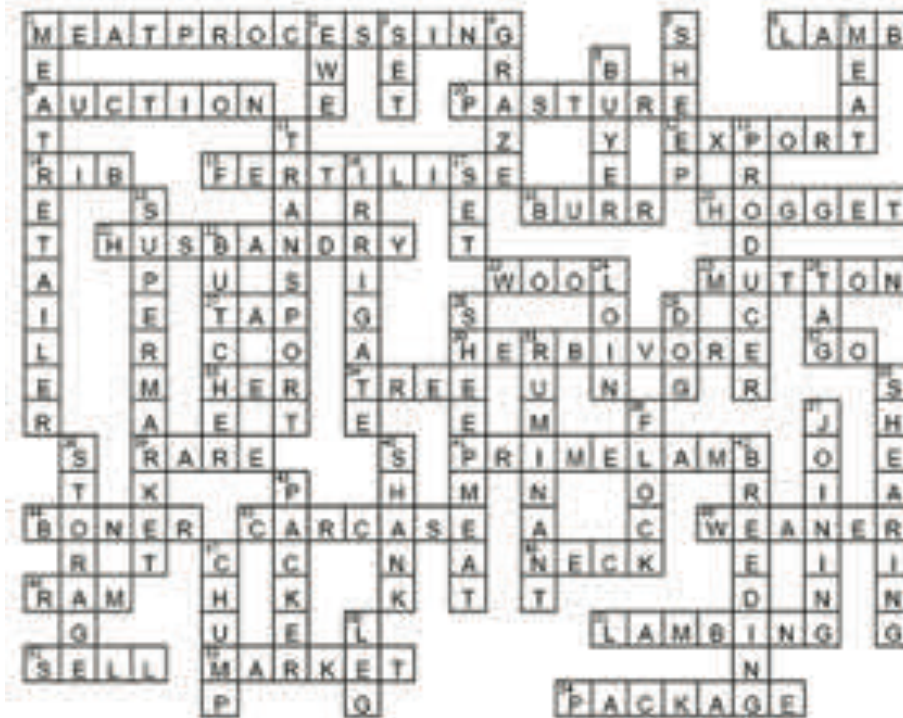|			
APRON	BACK	BARREL	CREST
DEWLAP	FLANK	FOREARM	FOREQUARTERS
FRONT	GIRTH	HINDQUARTERS	HOCK
LOINS	MUZZLE	PIZZLE	POLL
RIBS	RUMP	SCRAG	SHANK
SHOULDER	STIFLE	TAIL	TESTES
TOPLINE	UNDERLINE	WITHERS	

australian wool innovation limited

mla

POINTS OF RAM

Activity 12.2 Labelling Diagram ANSWERS

TOP-LINE

SCRAG

POLL

CREST

RIBS

BACK

WITHERS

LOINS

RUMP

TAIL

MUZZLE

FRONT

GIRTH

DEWLAP

FLANK

APRON

HOCK

SHOULDER

STIFLE

PIZZLE

SHANK

FOREARM

UNDERLINE

TESTES

FOREQUARTERS

BARREL

HINDQUARTERS
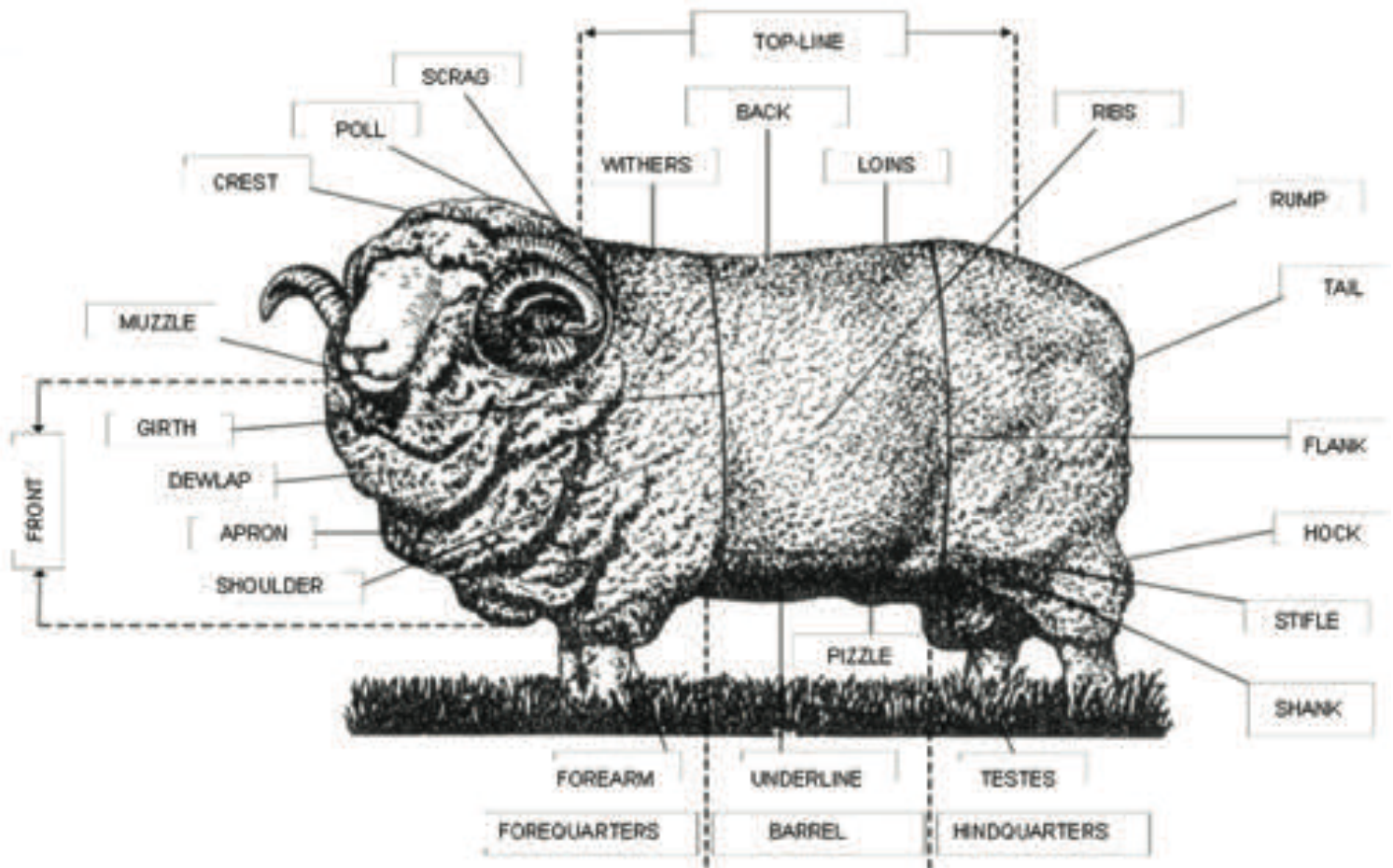
PRIME LAMB

Activity 13.1 and 13.2 Crossword ANSWERS

ACROSS:
1.MEATPROCESSING 6.LAMB 9.AUCTION 10.PASTURE 12.EXPORT 14.RIB
15.FERTILISE 19.BURR 20.HOGGET 21.HUSBANDRY 23.WOOL 25.MUTTON
27.TAP 30.HERBIVORE 32.GO 33.HER 34.TREE 39.RARE 41.PRIMELAMB
44.BONER 45.CARCASE 46.WEANER 48.NECK 49.RAM 51.LAMBING 52.SELL
53.MARKET 54.PACKAGE

DOWN:
1.MEATRETAILER 2.EWE 3.SET 4.GRAZE 5.SHEEP 7.MEAT 8.BUYER
11.TRANSPORT 13.PRODUCER 16.IRRIGATE 17.SET 18.SUPERMARKET
22.BUTCHER 24.LOIN 26.TAG 28.SHEEPMEAT 29.DOG 31.RUMINANT
35.SHEARING 36.FLOCK 37.JOINING 38.STORAGE 40.SHANK 42.BREEDING
43.PACKER 47.CHUMP 50.LEG

WORDLIST

AUCTION	BONER	BREEDING
BURR	BUTCHER	BUYER
CARCASE	CHUMP	DOG
EWE	EXPORT	FERTILISE
FLOCK	GO	GRAZE
HER	HERBIVORE	HOGGET
HUSBANDRY	IRRIGATE	JOINING
LAMB	LAMBING	LEG
LOIN	MARKET	MEAT
MEATPROCESSING	MEATRETAILER	MUTTON
NECK	PACKAGE	PACKER
PASTURE	PRIMELAMB	PRODUCER
RAM	RARE	RIB
RUMINANT	SELL	SET
SET	SHANK	SHEARING
SHEEP	SHEEPMEAT	STORAGE
SUPERMARKET	TAG	TAP
TRANSPORT	TREE	WEANER
WOOL		

PRIME LAMB

Activity 13.3 Find-a-Word ANSWERS

H		N							E	W				S	H	E	E	P	M	E	A	T		
	E		O				E		E	S	E	T			H	O	G	G	E	T				
S	P	R		I			R		A			G	O		E	G	A	K	C	A	P			
	H	A	B		T	T	R		N		T	A	E	M		L	O	I	N				R	
B	L	A	S	I		C		I		E													E	
L	O	E	N	T	V		U		B	R	L	A	M	B	I	N	G			M	A	R	C	
	A	N	G	K	U	O		A	P	E	E	H	S	G	N	I	R	A	E	H	S		U	
	M	E		R	R		G	A	T		K	C	O	L	F				D					
		B	R		E	E						T	A	P	P				O					
Y	R	D	N	A	B	S	U	H	R			P	R	I	M	E	L	A	M	B		R	W
C	T	R	O	P	S	N	A	R	T	G		G			S		C				P	O	
A		K	C	E	N		U	E	N		R		R			I	R	K				O	
R	E	G			E	B	X	I		E	U		A	T		L	A	E				L	
C	T	N		W		P	N		H		M		Z	E		R	I	R	R	L	L	E	S	N
A	A	I	E		O	I	S	C			I		E	K		E	T	E					O	
S	G	D		R	O		T	E			N			R		Y	R			D			T	
E	I	E	T	J		U			T		A			A		U	E		O	H	E	R	T	
	R	E			B					N			M		B	F	G					U	
	R	R	E	G	A	R	O	T	S		T		S	U	P	E	R	M	A	R	K	E	T	M
	I	B	G	N	I	S	S	E	C	O	R	P	T	A	E	M			P	M	U	H	C

WORDLIST

AUCTION	BONER	BREEDING	BURR
BUTCHER	BUYER	CARCASE	CHUMP
DOG	EWE	EXPORT	FERTILISE
FLOCK	GO	GRAZE	HER
HERBIVORE	HOGGET	HUSBANDRY	IRRIGATE
JOINING	LAMB	LAMBING	LEG
LOIN	MARKET	MEAT	MEATPROCESSING
MUTTON	NECK	PACKAGE	PACKER
PASTURE	PRIMELAMB	PRODUCER	RAM
RARE	RIB	RUMINANT	SELL
SET	SET	SHANK	SHEARING
SHEEP	SHEEPMEAT	STORAGE	SUPERMARKET
TAG	TAP	TRANSPORT	TREE
WEANER	WOOL		

SHEARER

Activity 14.1 and 14.2 Crossword ANSWERS
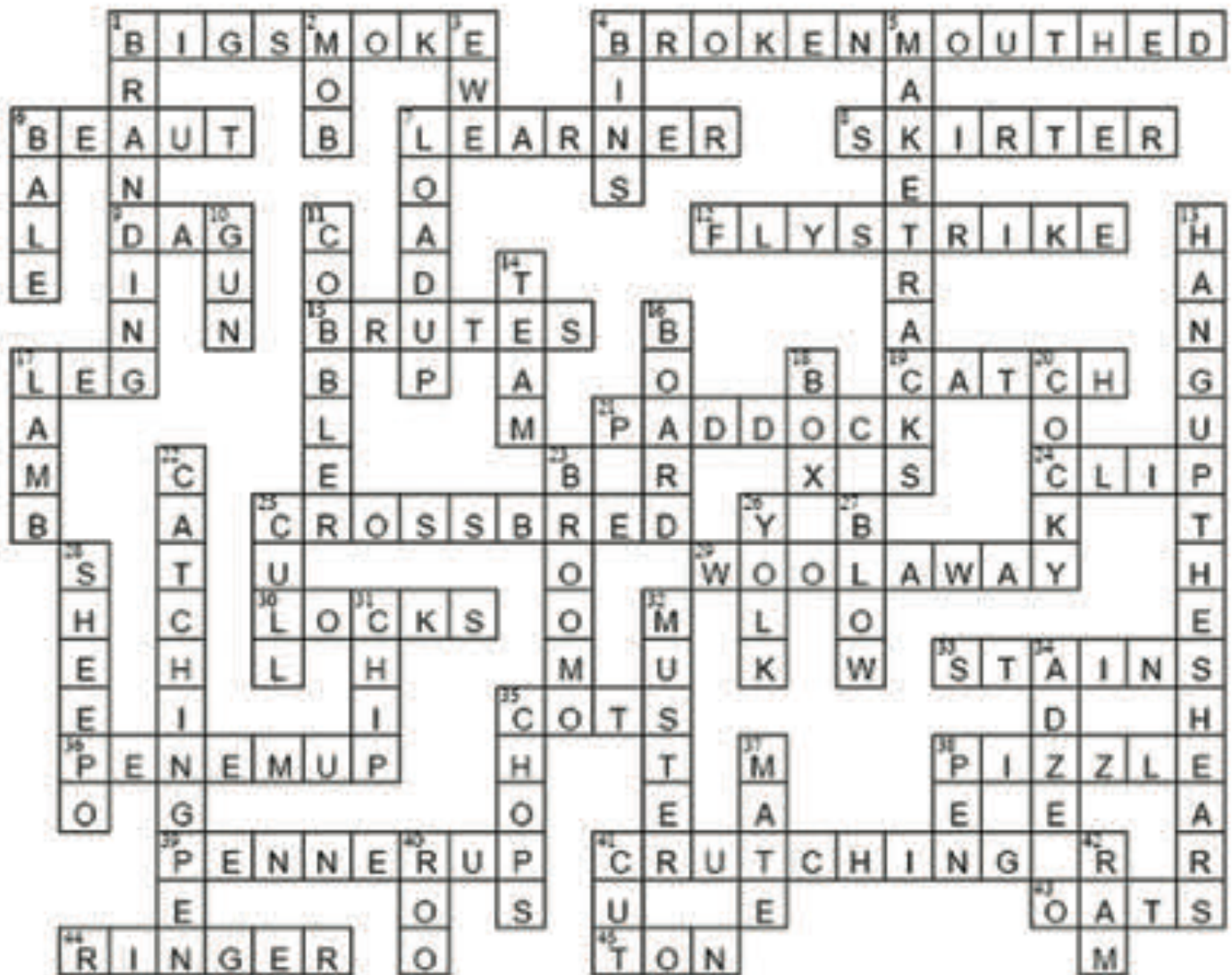
ACROSS:
1.BIGSMOKE 4.BROKENMOUTHED 6.BEAUT 7.LEARNER 8.SKIRTER 9.DAG
12.FLYSTRIKE 15.BRUTES 17.LEG 19.CATCH 21.PADDOCK 24.CLIP
25.CROSSBRED 29.WOOLAWAY 30.LOCKS 33.STAINS 35.COTS 36.PENEMUP
38.PIZZLE 39.PENNERUP 41.CRUTCHING 43.OATS 44.RINGER 45.TON

DOWN:
1.BRANDING 2.MOB 3.EWE 4.BINS 5.MAKETRACKS 6.BALE 7.LOADUP
10.GUN 11.COBBLER 13.HANGUPTHESHEARS 14.TEAM 16.BOARD 17.LAMB
18.BOX 20.COCKY 22.CATCHINGPEN 23.BROOMO 25.CULL 26.YOLK 27.BLOW
28.SHEEPO 31.CHIP 32.MUSTER 34.ADZE 35.CHOPS 37.MATE 38.PEN 40.ROO
41.CUT 42.RAM

SHEARER

Activity 14.3 Find-a-Word ANSWERS

WORDLIST

ADZE	BALE	BEAUT	BIGSMOKE
BINS	BLOW	BOARD	BOX
BRANDING	BROKENMOUTHED	BROOMO	BRUTES
CATCH	CATCHINGPEN	CHIP	CHOPS
CLIP	COBBLER	COCKY	COTS
CROSSBRED	CRUTCHING	CULL	CUT
DAG	EWE	FLYSTRIKE	GUN
HANGUPTHESHEARSLAMB		LEARNER	LEG
LOADUP	LOCKS	MAKETRACKS	MATE
MOB	MUSTER	OATS	PADDOCK
PEN	PENEMUP	PENNERUP	PIZZLE
RAM	RINGER	ROO	SHEEPO
SKIRTER	STAINS	TEAM	TON
WOOLAWAY	YOLK		

SHEEP STATIONS

Activity 15.1 The Wool Industry

Teacher's Notes For The Research Topics

The first sheep to arrive in Australia were a hairy, fat-tailed flock of 29 sheep brought by the First Fleet for their meat. In 1796, when a ship was sent to the Cape of Good Hope for supplies for the struggling colony, John Macarthur requested that fine wool sheep be purchased. A small flock of 26 pure-bred Spanish Merinos were shipped back to Sydney. John and his wife, Elizabeth Macarthur, crossed the Merinos with their own sheep starting Australia's first wool flock at Elizabeth Farm near Parramatta. The first bale of Australian wool was sold in London in 1808.

During the 1820's another 5,000 Merino sheep were imported into Australia from Saxony, France and England (ABARE, 2004). Both free settlers and emancipated convicts, seeing the possibilities for wool, acquired Merinos and wool production rapidly grew. When explorers crossed the Blue Mountains in 1818 they found vast pasture lands more suitable for sheep than the humid coastal strip. Further exploration resulted in large tracts of land to the north, west and south of Sydney being opened up for grazing.

The Merino was well suited to Australia's climatic conditions and there were enormous increases in the size of flocks and stock runs. In 1847 there were three million sheep in Victoria alone and by the end of the 1850's the Australian sheep population had reached 16 million (ABARE, 2004). During the second half of the 19th century sheep numbers rose to over 100 million and wool production had increased tenfold.
"Because of the Merino, Australia, in less than one hundred years, passed from being a disposal ground for English convicts, to one of the most important members of the British Commonwealth" (Ponting, 1961).

Wool continued to dominate Australia's exports until the early 1950's (ABARE, 2004), the golden period when Australia was said to be 'riding on the sheep's back'. However, increasing competition from cotton and synthetic fibres in the latter half of the 20th century saw the status of wool change from that of an essential fibre to a luxury item. World wool demand and prices paid for Australian greasy wool fell accordingly. Today, despite its loss of dominance as an export commodity, Australia remains the largest supplier of merino wool, the world's best quality woollen fibre. Today over 95 percent of Australia's wool production is exported. China currently purchases approximately 40 percent of Australia's wool with exports in 2004 – 2005 valued at 1.3 billion dollars (AWI, 2005).

SHEEP STATIONS

Activity 15.1 The Wool Industry

Australian Wool Breeds

The Australian Merino is not a single breed or strain of sheep. The Merinos that were imported during colonial settlement, although descended from the Royal Flocks of Spain, had undergone selection to suit the specific climatic conditions and breeding requirements of producers in England, various parts of Europe and America. Once in Australia the Merinos continued to be selected for environmental suitability, frame size, fleece weight and fibre characteristics.

Spanish Merino

Though only small in number there is still a distinct strain of Merinos descended from the original Spanish Merinos imported during the early days of the colony. As the inland pastoral zones were opened up these Spanish Merinos were selected for greater body size and fleece weights.

Saxon Merino

Mrs W. Furlonge, a pioneer and colourful character of her time, established a flock of Saxon sheep with her sons, first in Tasmania in 1829 and later in Victoria. On more than one occasion she had walked over 1500 miles through Saxony and Prussia selecting fine-woolled Saxony sheep with which to establish a stud in Australia.
More Saxony Merinos, from south-east Germany, were introduced into South Australia in the1830's. The Saxony fleece was famed for its magnificent white, extremely fine fleece. Breeding continued in Australia, the Saxon being crossed with the Spanish Merino to produce the modern day superfine/fine wool Merino.

Saxon Merinos only live in southern Australia, as they prefer areas with high rainfall and cooler temperatures. They can be found in Tasmania, in cool parts of Victoria and among the tablelands of New South Wales. The breed has characteristics to suit these different conditions. It is the smallest merino and produces the least wool, only around 4 to 5 kilograms a year. Yet this small quantity is the best quality wool produced by Australian sheep. It is highly sought after and only used for the finest textiles. The wool is soft, fine and bright white and because of its qualities it sells for a high price.

SHEEP STATIONS

Activity 15.1 The Wool Industry

Peppin Merino

Of the 100 million merino sheep in Australia, approximately 70% are descended from the Peppin Merino strain. The breed is named after the Peppin brothers from Deniliquin who carefully developed the variety in the 1860's through selective breeding. From an original flock of 6000 Merino ewes of Spanish and French origin, 200 were chosen to cross with a famous French Rambioullet ram from the United States. The Peppin brothers also used Vermonts, Lincolns and German Merinos to develop their strain of sheep. Peppins are suited to living in a wide range of environments, from the tablelands through the cropping zone and into pastoral areas. Peppin sheep produce heavier fleeces (usually 7 – 9 kg) than the Saxon strain that are broader in fibre diameter.

South Australian Merino

The South Australia Merino, as its name suggests, is a breed that was specifically developed for the arid pastoral areas of South Australia. It is the largest merino strain in Australia and is longer, taller and heavier than the Peppin Merino. Its wool is also the coarsest of all the Merinos and it carries a higher proportion of wax which protects the wool fibres from the harsh environmental conditions. The breed is most widespread in South Australia but can also be found in Western Australia, Queensland and New South Wales.

Modern Australian Merino Breeds

Four main types of Merinos are now recognised in the Australian flock. They are classified according to the fibre diameter of their fleece, measured in microns. The industry trend in recent years has been to breed for finer high quality wools.

Superfine Wool Merino

Superfine wool has a fibre diameter of 15.6 to 18.5 microns. Bred from the Saxon Merino, the sheep are small framed and recognised by their skin folds. Located in the cool, temperate, high rainfall areas of eastern and southern Australia, superfine Merinos cut 4 to 5 kilograms of greasy wool that is prized by the textile industry for high quality cloth for fashion wear.

Ultrafine wools have a fibre diameter of 15.5 microns or less. These wools are blended with other luxury fibres such as silk or cashmere to manufacture fabrics for the exclusive fashion market.

SHEEP STATIONS

Activity 15.1 The Wool Industry

Fine Wool Merino

Fine wools are 18.5 to 19.5 microns in diameter. Like the superfine merinos these sheep produce a dense, bright white fleece that is highly resistant to fleece rot caused by high rainfall. Adults cut 4 to 7 kilograms of greasy wool that is also used in fine apparels.

Medium Wool Merino

Medium wool Merinos cut 6 to 9 kilograms of greasy fleece of 19.6 to 22 microns. The wool is soft handling and used in the textile industry for light suiting and knitwear. It is also used for commercial purposes. There are Peppin and non-Peppin medium wool Merinos that are both medium framed and relatively plain bodied. The non-Peppin strain, developed from the Spanish Merino, tolerates wetter conditions than the Peppin Merino.

Strong Wool Merino

Strong wool Merinos are the largest of the Merinos, producing 8 to 10 kilograms of a heavy cutting fleece with a fibre diameter greater than 22.1 microns. The predominant use for strong wool is in synthetic blends to produce cheaper fabric for off-the-rack suits. Along with the medium wools, strong wools have many commercial uses such as fabrics for car and aircraft seats and interior wall coverings.

Poll Merinos

As with other sheep breeds Merinos carry a recessive poll gene. Breeding sheep with this gene results in pure Merino rams that have no horns. These rams are less likely to get fly strike in the poll area or to tangle in fences and are easier to handle. Poll merinos have been bred within each Merino type from superfine to strong wools.

SHEEP STATIONS

Activity 15.1 The Wool Industry

Shearing in Australia

As the wool industry grew in the early years of the colony convicts were assigned to settlers and squatters as shepherds and farm hands, each looking after a small flock during the day and herding the sheep into rough timber enclosures at night. The convicts also washed and shore the sheep and baled the wool. Ticket-of-leave men and immigrants, escaping economic depression in England, soon joined the growing wool workforce. Itinerant shearers, either singly or in groups, would travel the countryside picking up work by word of mouth. The shearing was done using bow shears or knives in portable sheds of canvas on timber frames or in rough timber structures that were the forerunner of the modern shearing shed.

As the size of the sheep runs and numbers of sheep to be shorn grew, other people were employed as shepherds, gatekeepers, sheep washers, musterers, penners, rouseabouts, tar boys, wool classers, wool pressers, dray drivers and shearer's cooks leaving the shearers to their specialty of removing the fleece. Shearers were paid by the number of sheep shorn so their tally was all important and competition between the shearers to become the ringer, or fastest shearer in the shed, was lively. Shearing matches were organised with prize money offered. Jack Howe holds the all-time record for blade shears, shearing 321 sheep in eight hours at Alice Downs Station, Queensland in 1892.

Frederick Wolsley, a wool grower and John Howard, a mechanic, from Walgett, New South Wales, perfected mechanical shears in 1885. Although initially the mechanical shears were slower than blade shears they removed a greater proportion of the fleece. Dunlop Station near Bourke produced the first mechanically shorn clip in 1888 and by the 1890's most sheds had converted to machine shearing powered first by steam and then by diesel or electricity.

The gold rush of the 1850's had led to a serious labour shortage on the sheep runs as thousands of men left their jobs to seek their fortunes on the gold fields. Graziers were left to look after thousands of sheep spread across large pastoral runs almost single handedly. To enclose and protect the sheep hundreds of miles of timber 'split-railing' fences were constructed. Boundary riders, many of them Aboriginal, were employed to check the flocks and repair any broken fences.

SHEEP STATIONS

Activity 15.1 The Wool Industry

The gold rush also led to a shortage of shearers. Those remaining, realising that their skills were highly sought after, began to demand better wages and conditions and developed a more professional attitude to their work. By the 1870's and 1880's the shearers and shed hands had begun to form unions. In 1891 conflict arose between the Queensland pastoralists and shearers over wages and conditions and with support from the government the pastoralists united to break the power of the unions. The Queensland Shearer's strikes followed and although the pastoralists prevailed at the time, the actions of the shearers led to a shearer being elected to the Queensland Parliament in 1892. The world's first Labour government was voted into power in Queensland in 1899. It was following the Shearer's Strike of 1894 that Banjo Paterson visited Dagworth Station, near Winton in Queensland. The woolsheds of several stations, including Dagworth, had been burnt down by shearers in an attempt to prevent non-Union, or scab, labour being employed for the shearing. Paterson, capturing these events, penned the words of the immortal song Waltzing Matilda during this visit.

The Australian Workers' Union, an amalgamation of the earlier unions, was also formed in 1894. A standard of wages, hours and conditions was established for shearers through the courts by the AWU in 1907. Shearers were organised into teams by contractors and co-operative shearing companies were formed.

SHEEP STATIONS

Activity 15.2 Find-a-Word ANSWERS

WORDLIST

ALICEDOWNS	BARCALDINEDOWNS	BOODARIESTATION	BROOKONG
BUNGAREE	CRANMOREPARK	DAGWORTHSTATION	DENNISTOUN
DUNLOPSTATION	EGELABRA	GOSTWYCK	HADDONRIG
ISISDOWNS	LIVERINGASTATION	MUNDABULLANGANA	NAREEBNAREEB
NEWSTEAD	SEVENCREEKSRUN	TERRICKTERRICK	TINNENBURRA
TOORALESTATION	UARDRY	WANGANELLA	WELLSHOTSTATION
WINTON			

TAX

Activity 16.1 Business Activity Statement ANSWERS

SALES

Price/unit excludes GST. GST is 10% of the net amount.
Gross amount = Net amount + GST

Item	Price/Unit $	No. of Units	Net Amount $	GST $	Gross Amount $
Prime Lambs	95.00/lamb	400	38,000.00	3,800.00	41,800.00
Lucerne hay	9.00/bale	2,000	18,000.00	1,800.00	19,800.00
		TOTALS	**56,000.00**	**5,600.00**	**61,600.00**

PURCHASES

Price/unit includes GST.
First calculate Gross Amount = Price/unit x No. of Units and write answers in column.
Calculate GST = Gross Amount / 11
Calculate Net Amount = Gross Amount - GST

Item	Price/Unit $	No. of Units	Net Amount $	GST $	Gross Amount $
Fuel (diesel)	1.44/litre	5,000	6,545.45	654.55	7,200.00
Oil	500/drum	1	454.55	45.45	500.00
Seed	1.50/kg	400	545.45	54.55	600.00
Fertiliser	30/bag	20	545.45	54.55	600.00
Weed spraying	800/application	2	1,454.55	145.45	1600.00
Baling twine	65/roll	8	472.73	47.27	520.00
Dog food	20/bag	5	90.91	9.09	100.00
Dog worm tablets	25/packet	2	45.45	4.55	50.00
5 in 1 vaccine	40/pack	2	72.73	7.27	80.00
Drench	160/pack	1	145.45	14.55	160.00
Supplementary grain	200/tonne	5	909.09	90.9	1,000.00
Livestock cartage	500/load	1	454.55	45.45	500.00
		TOTALS	**11,736.36**	**1,173.64**	**12,910.00**

Calculate: GST from Sales – GST from Purchases = $5,600 - $1,173.64
= $4,426.36

The mixed farming business owes the ATO $4,426.36 in GST from sales.

TAX

Activity 16.2 Mix-and-Match ANSWERS

DEFINITION	CORRECT ACRONYM
Student Financial Supplement Scheme	SFSS
Goods and Services Tax	GST
Australian Business Register	ABR
Business Entry Point	BEP
Capital Gains Tax	CGT
Approved Deposit Fund	ADF
Simplified Tax System	STS
Ordinary Time Earnings	OTE
Australian Business Number	ABN
Electronic Lodgement System	ELS
Separate Net Income	SNI
Pay As You Go	PAYG
Fringe Benefits Tax	FBT
Australian Taxation Office	ATO
General Interest Charge	GIC
Highest Average Salary	HAS
Business Activity Statement	BAS
Higher Education Contribution Scheme	HECS
Instalment Activity Statement	IAS
Tax File Number	TFN
Electronic Funds Transfer	EFT
Personal Identification Number	PIN

TRUCKS AND TRANSPORT

Activity 17.1 Maths Activity ANSWERS

1.

   a. 100 lambs/deck x 50kg/lamb = 5,000kg or 5 tonnes

   b. Total weight of lambs on the truck = 4 x 5 tonnes = 20 tonnes

   c. Cost of transporting lambs = 100km x $5/km = $500

   d. Dressed weight of each lamb = 50kg x 50% = 25kg

   e. Price for dressed weight = 25kg x 340c/kg = $85/lamb
      Price for skin = $10/lamb
      Total price paid for each lamb = 85 + 10 = $95

   f. The total price received for the lambs = 400 x $95 = $38,000

TRUCKS AND TRANSPORT

Activity 17.2 Find-a-Word ANSWERS

WORDLIST

ACCO   AEC   ATKINSON   AUSTIN
AUTOCAR   BEDFORD   BLITZ   CATERPILLAR
COMMER   DAF   DAIHATSU   DIAMONDREO
DIAMONDT   DODGE   EUCLID   FEDERAL
FIAT   FODEN   FORD   FREIGHTLINER
HINO   INTERNATIONAL   ISUZU   IVECO
KENWORTH   LEADER   LEYLAND   MACK
MAN   MAZDA   MERCEDESBENZ   MITSUBISHI
MORRIS   NISSANUD   OSHKOSH   PETERBILT
RFW   SCANIA   STERLING   TOYOTA
TRANSTAR   UNIMOG   VOLVO   WABCO
WESTERNSTAR   WHITE

WOOL PROCESSING

Activity 18.1 and 18.2 Crossword ANSWERS
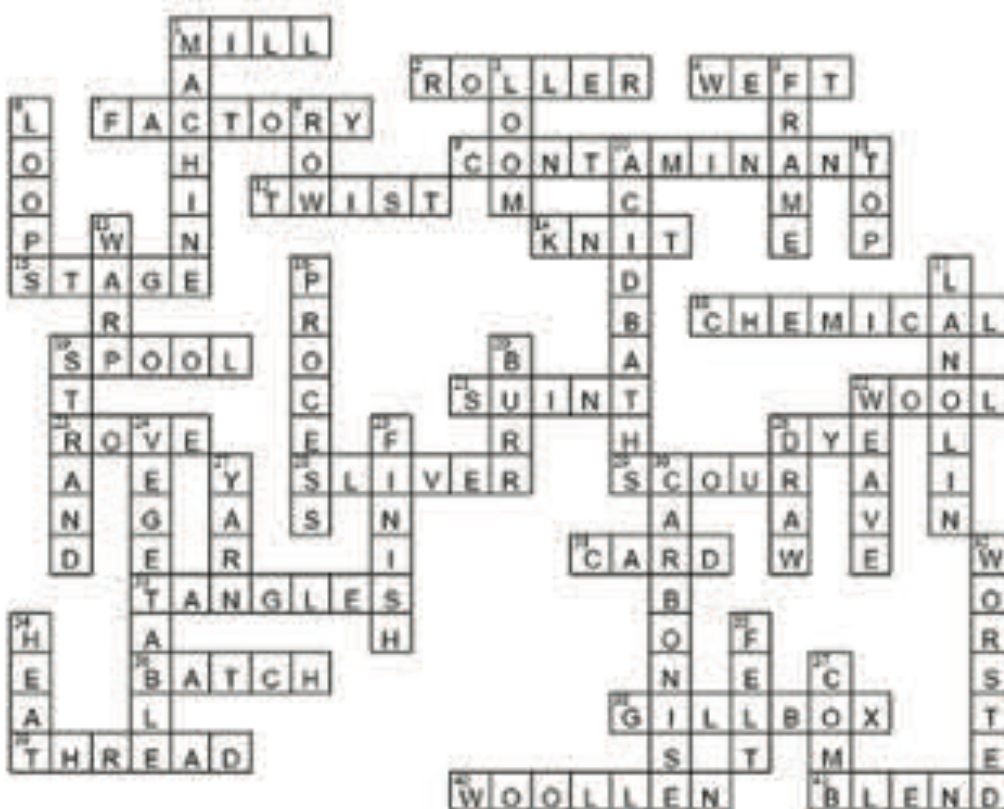
ACROSS:
1.MILL 2.ROLLER 4.WEFT 7.FACTORY 9.CONTAMINANT 12.TWIST 14.KNIT
15.STAGE 18.CHEMICAL 19.SPOOL 21.SUINT 22.WOOL 23.ROVE 26.DYE
28.SLIVER 29.SCOUR 31.CARD 33.TANGLES 36.BATCH 38.GILLBOX 39.THREAD
40.WOOLLEN 41.BLEND

DOWN:
1.MACHINE 3.LOOM 5.FRAME 6.LOOPS 8.ROW 10.ACIDBATHS 11.TOP
13.WARP 16.PROCESS 17.LANOLIN 19.STRAND 20.BURR 22.WEAVE
24.VEGETABLE 25.FINISH 26.DRAW 27.YARN 30.CARBONISE 32.WORSTED
34.HEAT 35.FELT 37.COMB

WORDLIST

ACIDBATHS	BATCH	BLEND	BURR
CARBONISE	CARD	CHEMICAL	COMB
CONTAMINANT	DRAW	DYE	FACTORY
FELT	FINISH	FRAME	GILLBOX
HEAT	KNIT	LANOLIN	LOOM
LOOPS	MACHINE	MILL	PROCESS
ROLLER	ROVE	ROW	SCOUR
SLIVER	SPOOL	STAGE	STRAND
SUINT	TANGLES	THREAD	TOP
TWIST	VEGETABLE	WARP	WEAVE
WEFT	WOOL	WOOLLEN	WORSTED
YARN			

WOOL PROCESSING

Activity 18.3 Find-a-Word ANSWERS

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. . . C H E M I C A L . . . . S U I N T . . . .
T F E W . . . . . B . . . . D Y E . D . . . .
A C I D B A T H S . L . . W . . . . . . R . .
. . . X O B L L I G E T . O . . . . . . . A .
. E G A T S . . . Y N . . O . T I N K . . . C
. . . R . . T . O . A D L . L . E M A R F . .
. . . R . . T . O . N . O . T L . . . . . . .
. E B M O C U A . T . I . O . A . E L . . . .
. . S . . E O C . . M . P . N . L N O . . . .
V . . I . H . A C . . A . S G . . O . O . . .
E . . . N . F . R S . . T . E L S . . O . W .
G . . B . O F . T R . . N . V . E S . . P . .
E . . . A E B S . . U . O . O L S E . . W S R
T . . . L T I R . . . B . C T R . O C . E D A R E
A . . . T W C . . A . . . H . . O . V R R E V
B . . . . T . . H . C Y A R N . . R . R M A A P L I
L . . P O T . E N I H C A M . . E P . E W . L L
E . . L A N O L I N . . H S I N I F A . W . O S
. . . . . . W O R S T E D . . . . D . . . R .
. . . . . S T R A N D M I L L . . R O W . . .
```

WORDLIST

ACIDBATHS	BATCH	BLEND	BURR
CARBONISE	CARD	CHEMICAL	COMB
CONTAMINANT	DRAW	DYE	FACTORY
FELT	FINISH	FRAME	GILLBOX
HEAT	KNIT	LANOLIN	LOOM
LOOPS	MACHINE	MILL	PROCESS
ROLLER	ROVE	ROW	SCOUR
SLIVER	SPOOL	STAGE	STRAND
SUINT	TANGLES	THREAD	TOP
TWIST	VEGETABLE	WARP	WEAVE
WEFT	WOOL	WOOLLEN	WORSTED
YARN			

WORKING DOGS

Activity 19.2 Find-a-Word ANSWERS

			H	U	N	T	A	W	A	Y												S	
	E		A	C		G	O	D	N	I	A	T	N	U	O	M						H	
L	S		L	O				R	E	T	T	E	S	N	O	D	R	O	G			E	
A	E		A	O		W			P	H	A	R	A	O	H	H	O	U	N	D		T	
B	U	H	S	N		L	E	I	N	A	P	S	R	E	K	C	O	C			D	L	
R	G	U	K	H	R		L			B										R	C	A	
A	U	N	A	O	O		S	R	E	E		A							E	E	A	N	
D	T	G	N	U	T	Y	H	O	K	R		M						H	B	V	T	D	D
O	R	A	M	N	T	K	C	U	O	N		M	R				P	O		E	T		N
R	O	R	A	D	W	S	O	G	R	E		E		E			E	R		I	L		A
S	P	I	L		E	U	R	H	B	S		R		L	H	D			R	E		L	
A	Y	A	A		I	H	G	C	M	E		A		S	E			T	D		D		
L	R	N	M		L	N	I	O	E		M		N	R		E		E	O		N		
U	E	V	U		E	A		L	P			A	C			H		R	G		U		
K	N	I	T		R	I		L			M	O	G	O	D	P	E	E	H	S		O	
I	E	Z	E		D	R	A	I	R	B	R	L						U			F		
	A	S			E		E		E	L								L			W		
	N	L			B			G	I	D	R	A	N	R	E	B	T	S		B	E		
		A			I		K	E	L	P	I	E			G	O	D	R	E	T	A	W	N
					S			B	L	A	C	K	A	N	D	T	A	N					

WORDLIST

ALASKANMALAMUTE	BERNESE	BLACKANDTAN	BLUEHEELER
BORDERCOLLIE	BRIARD	CATTLEDOG	COCKERSPANIEL
COONHOUND	GERMANSHEPHERD	GORDONSETTER	HUNGARIANVIZSLA
HUNTAWAY	KELPIE	LABRADOR	MAREMMA
MOUNTAINDOG	NEWFOUNDLAND	PEMBROKE	PHARAOHHOUND
PORTUGUESE	PYRENEAN	RETRIEVER	ROTTWEILER
ROUGHCOLLIE	SALUKI	SHEEPDOG	SHETLAND
SIBERIANHUSKY	STBERNARD	WATERDOG	WELSHCORGI

SMALLGOODS

Activity 20.1 Find-a-Word ANSWERS

WORDLIST

BACON	BILTONG	BLACKPUDDING	BRATWURST
BRAWN	BROCKWURST	CABANA	CABANOSSI
CACCIATORI	CHEVAPCICI	CHORIZO	COPPA
CSABAI	DEVON	DONERKEBAB	FLEISHWURST
FRANKFURTERS	HAM	HOCKS	KRANSKI
LIVERWURST	LYONER	MEATLOAF	MEATPATTIES
MORTADELLA	PANCETTA	PASTRAMI	PEPPERONI
PEPPERWURST	PRESSEDMEATS	PROSCIUTTO	RISSOLES
ROASTBEEF	SALAMI	SAUSAGES	SAVELOY
SOJUK	SOPPRESSO	SREMSKE	STRASSBURG
TEAWURST	TIROLER	TRIPE	VIENNA