

Worksheet Booklet

Katoomba High School

Stage 5 (9A)







Instructions

- Complete all the sheets in this booklet
- Write in the space provided
- Hand booklet in to Deputy Principal





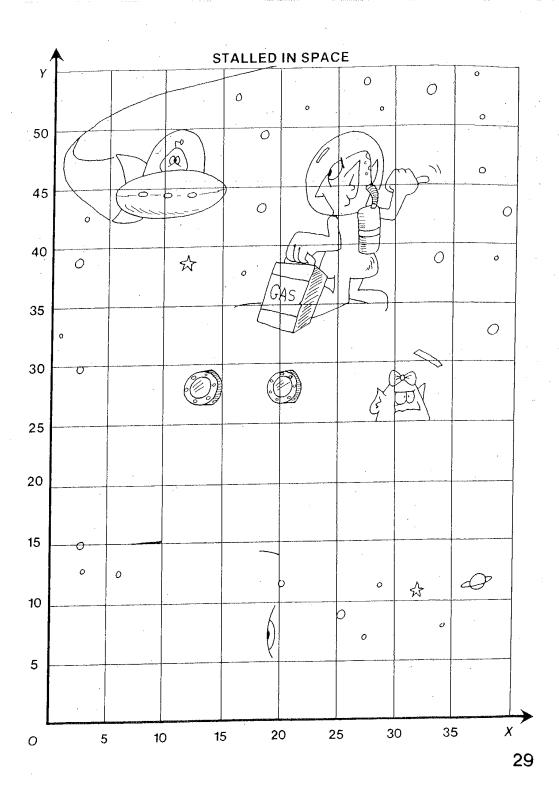
STALLED IN SPACE

(38, 25) (27, 25) (26, 30) (30, 33) (32, 33) STOP

Following the sequence of ordered pairs below, connect the corresponding points on the graph on page 29. When you reach the word STOP, lift your pencil and start again on the next point in the sequence.

(13, 10) (20, 10) (20, 5) (0, 8) (0, 10) (5, 10) (14, 20) (25, 20) (13, 10) (5, 10) STOP	(28, 35) (35, 31) (40, 22) (35, 15) (30, 14) (20, 14) (25, 20) STOP	(30, 34) (24, 30) (25, 25) (15, 25) (40, 22) STOP	
(14, 20) (7, 15) (5, 18) (5, 25) (3, 25) (0, 28) (0, 18) (3, 20) (5, 20) (5, 38) (10, 33) (5, 28)	(10, 33) (16, 35) STOP		

STOP



Classroom Unit 6 -use -ute



Ē	The List	
	fuse muse refuse ruse	
ŀ	abuse misuse cute lute	mute flute tribute acute
	chute absolute distri	ibute parachute
Ŀ	2	
1	Which list words mean ?	b very sudden and severe
a	complete	
	something given or said in respect of another	e unable to speak
	to give out	g to think deeply
	a trick	i to mistreat
h	to blame	1 (O Missioux ===
2	Write one list word in each semence	burnt quickly towards the explosives.
а	The standardian is to	an audience
b	this t	time?" hellowed the teacher at poor Butch.
C	During the trial the witness was asked to only	v speak the truth.
_	u o u - tdo which are musical inetr	ruments ————————————————————————————————————
3	as I die a the correct word	
4	At the entire pool the children would whi:	zz down the high (chute shoot) and then (chute shoot) off
	the and into the water	·
h	During the riots the police were worried that s	some people may (loot lute) the damaged shops.
C	The King emiled as the mellow strains of the	heautifully played (1001 Tute) reached the
5	'Mute' can mean unable to speak, or an obje-	ect placed over a musical instrument to change its sound.
-	- Oan way name any instrument upon Which a	mute can be placed?
6	Which list word comes from the combined F	rench words meaning to protect or ward off, and to fall?
Ť		Mark.
N	Vord Building	to to form now words
1	Add prefixes and suffixes from the boxes to	o the base words to form new words.
	(You may have to 'drop' certain letters).	
	fuse	-ful
	mis- use	-able
	amuse	-ive
	de- abuse	-less
	excuse	-ment
	Add the suffix –ion to the following words	•
	absolute distribute	IIIstitute
	(Did you remember to 'drop the e'?)	
\bigcap	For Champs peruse institute	refute commute astute
	i o i o i o i o i o i o i o i o i o i o	

Home Study U	Init 6		It is the little rift within the lute, That by and by will make the music mute, And ever widening slowly silence all. (Alfred Lord Tennyson)
1 Match the illustration w	ith a list word.	The state of the s	
2 Unjumble: sutla	o b e	tteru	ıbi
brute	eiidst	etap	ruhca
3 Write all the list words			
b begin with a consonant			
c begin with the first lette	r of the alphabet		
4 Complete these senter	nces		
a A mute person cannot.			
b ∵To play a lute you must			A.F.
c A parachutist expects h			
d A smiling baby is usual			-· Sim si
e A flautist plays a			
Vocabulary Exten	sion		0
•		shifted to the fire	st syllable so say 'ref-yooce'.
Fuse can also mean to			
	in sentences using the a	above meaning	S.
2 Write the base words v	which form the following		
			commuter

In classical mythology the Muses were the daughters of the Titan, Mnemosyne, and Zeus, the King of the Gods. Their job was to look after the branches of literature, art and science. Your job is to find out how many Muses there were.

Worksheet 12-03 Collecting like terms

Simplify each of these algebraic expressions.

1
$$x + 5x$$

$$23y + 8y$$

$$36a - a$$

4
$$9t - 4t$$

$$5 \ 3ab + 6ab$$

$$68d + 12d$$

$$77st + 3st$$

$$8 2x + x$$

9
$$5a^2 + 4a^2$$

10
$$3t - 2t$$

11
$$4ab + 4ab$$

12
$$5ty - 3ty$$

13
$$2mp - mp$$

14
$$x + 4x - 3x$$

$$15 w + w + 5w$$

16
$$2c - 5c$$

17
$$3r - 3r$$

18
$$2m + 3m - m$$

19
$$e - 2e$$

20
$$14h + 6 - 12h$$

$$21 y + y + y$$

22
$$4c + d + 4c - 3d$$

23
$$7p + 2 + 3p + 7$$

24
$$5s - s + 2s$$

$$25 4y^2 + y^2$$

26
$$3d + d - d$$

27
$$a + a + 2f$$

28
$$c + 12d + 2c - 5d$$

29
$$6 + 3h + 4h + 1$$

30
$$6u^2 - 3u^2 + 2u^2$$

31
$$4a + 2a - 6b - 4b$$

32
$$5g - 4 + 2g + 3$$

33
$$10x + 6b - 5b - 7x$$

34
$$12m + 2n + 8m - 7n$$

$$37 \ 12w - 6w + 4wt + 3wt$$

$$38 \ 4a + 6a + 2b - 3a$$

39
$$x^2 + 3y + y + x^2$$

41
$$5y^2 + 4x - 2y^2 + 3x$$

42
$$4k + p - 3k + p$$

43
$$x + y - x$$

44
$$8y - 2 - 6y + 1$$

45
$$2y + 3m - y - m$$

$$46^{\circ} - 8 - 2q + 5q + 9$$

47
$$5r^2 + 3r^2 - r - 2r$$

48
$$3a - b + 3a$$

49
$$5t + 3t + 3v - 2v$$

50
$$18 - k + 4k - 10$$

52
$$4y + 2z - 3y + z$$

53
$$2x + 5 - 3x - 2$$

$$54 \ 2ab + ab + 3b$$

55
$$2p^2 + 3p - p^2 + p$$

56
$$3u^2 + 5 - u^2 - 4$$

$$57 - 5a + 2 + 3a + 3$$

58
$$8x - x - 8$$

59
$$10 + 6x + 3x - 7$$

60
$$9p - 3q - 7p - 2q$$

61
$$8t + 4w - 8t + 2w$$

62
$$15x + 3x - 5 + 5$$

$$63 - 4p + 6p + a - 4a$$

64
$$6c + 7d - d - 5c$$

65
$$9jk - 5k - 2kj + 2k$$

$$67 - 3x + 7y - 7y + 6x$$

$$68 - 5y^2 + yz + 3yz - 2y^2$$

$$69 2y + 5 - 6y + 2$$

70
$$7w^2 - 6u + 2w^2 + 9u$$

Educated at the College Mazarin in Paris, Antoine Lavoisier studied mathematics, astronomy, chemistry, botany, and legal studies. His first job was to collect geological information for a map of France. Lavoisier's first published research was on the properties of the mineral gypsum. Later he was awarded a gold medal by the King of France for research on street lighting. Lavoisier worked in a number of areas including the Royal Gunpowder Administration and established the metric system of weights and measures. In 1793 he was arrested by the leaders of the French Revolution because of his involvement in tax collection. Lavoisier was executed by the guillotine.

- 1 (a) What benefits would street lighting have that would lead to Lavoisier being awarded a medal?
 - (b) Before Lavoisier's time, France had many types of measurements. What advantage does the metric (SI) system have over other types of measurements?
 - (c) Suggest a reason why Lavoisier was executed by the revolutionaries.

The story so far

In 1597 the first chemical textbook *Alchemia*, by Andreas Libavius, was published. Alchemia or chemistry was defined as the art of 'producing reagents and extracting pure essences from mixtures'. Many new compounds were being prepared at this time by experimenting with animal and vegetable materials. Some of these were alcohol, arsenic, zinc and three strong acids—hydrochloric, sulfuric and nitric. At this time Georg Stahl (1660–1734) proposed the Phlogiston Theory as a way of explaining what happens when substances burn or react with air. Substances that burnt easily such as coal were thought to contain large amounts of phlogiston. (Phlogiston does not actually exist.)

GROUP WORK

2 (a) How could you obtain compounds from living material such as a leaf?

LOOK IT UP @-

- (b) Write the modern formulas for:
 - i hydrochloric acid
 - ii sulfuric acid
 - iii nitric acid
 - iv arsenic
 - v zinc
 - vi alcohol

What did Lavoisier do?

Even though Lavoisier is regarded by many as the founder of modern chemistry, he did not actually discover any new elements or compounds. He did however describe many experiments. In 1772, Lavoisier began a series of experiments that demonstrated the nature of combustion (burning), and proved that the Phlogiston Theory was wrong. From these experiments he concluded that combustion results from the union of a flammable material with the newly discovered gas, oxygen. (Although oxygen had been discovered by Joseph Priestley a few years before, Lavoisier named it and showed that it made up about 20% of the atmospheric air.) Lavoisier accurately presented the chemical knowledge of his time in a chemistry textbook called *Elements of Chemistry* which was published in 1789.

- 3 Describe what you think will happen when the following materials are burned:
 - (a) match
 - (b) match head
 - (c) methylated spirits
 - (d) kerosene
 - (e) wax

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4 h

- 5 (a) What main gases make up the atmosphere?
 - (b) What are some uses of oxygen?

Lavoisier was very careful in his measurement of the weights of substances involved in chemical reactions. He heated mercury oxide and showed that it released oxygen. The material weighed less after the oxygen had gone. Lavoisier also showed that if mercury was heated at a lower temperature, it would react with oxygen and weigh more.

- (a) Matter never disappears or appears in chemical reactions. Why does mercury (Hg) weigh more when it is heated with oxygen (0) to form mercury oxide (HgO)?
 - (b) How much carbon dioxide (CO₂) is formed in the following reaction between carbon (C) and oxygen (0)?

$$12gC + 32gO \rightarrow ___ gCO_2$$

What did Lavoisier conclude?

Using the ideas he developed about the composition of the atmosphere, Lavoisier described what happened in the combustion process in chemical reactions, and what occurred during respiration in living cells. Because of his work we now know that respiration involves the slow, controlled burning of sugar with oxygen in the cells of living things. Respiration also results in the release of the waste product carbon dioxide.

- 8 (a) What is respiration?
 - (b) What raw materials are used in respiration?
 - (c) What is the main waste product?

As a result of these experiments, Lavoisier defined a chemical element as a substance that could not be decomposed into more simple substances by heat or any chemical reaction. He also defined a compound as a combination of two or more elements in a fixed and definite proportion by weight. Each element was given a number, called combining weight, and it was this number (or any whole number multiple of it) that represented the amount of the element which took part or combined in a chemical reaction.

He developed the first list of 33 elements. This list included lime and magnesia which we now know are not elements. These two substances were later studied by Humphry Davy (1778–1829), who separated the elements calcium and magnesium from them.

- 9 (a) What is an element?
 - (b) Give two examples of elements.
 - (c) What is a compound?
 - (d) List two compounds.
 - (e) What elements make up these compounds?

What happened next?

This idea of basing chemical reactions on weight placed chemistry on a quantitative, or measurement, basis. Prior to this chemistry had been qualitative or descriptive only. Lavoisier's work was the start of atomic theory and led, in time, to the chemistry we now know.

- 10 (a) What does the word qualitative mean?
 - (b) What does the word quantitative mean?
 - (c) How do you think chemistry is a quantitative science?

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FITNESS

Find the word or phrase from Column B that best matches the word in Column A

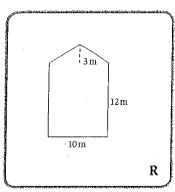
<u>C</u>	Column A		Column B
1.	FITNESS	1.	This training technique involves training the energy systems and structures you want to improve.
2.	STRENGTH	2.	Refers to a person's body shape. Their tendency towards linearity, muscularity or a greater percentage of body fat.
3.	FLEXIBILITY	3.	A type of aerobic training that involves moving around a number of stations in a set period of time.
4.	AGILITY	4.	Exercises and activities that place unnecessary strain on the body and may lead to injury.
5.	BALANCE	5.	The range of movement possible at a joint or group of joints.
6.	POWER	6.	The ability to use two or more systems of the body to produce smooth, controlled movements.
7.	SOCIAL	7.	A combination of strength and speed.
8.	ENDURANCE	8.	This training technique involves placing greater stress on the body for improvements to occur.
9.	EMOTIONAL	9.	The ability of muscles to repeatedly contract without undue fatigue.
	FITT	10.	The ability to change direction, quickly and under control.
11.	OVERLOAD	11.	The ability to maintain an active or static position over a base of support.
12.	AEROBIC	12.	This principle should be applied when planning any training program.
13.	SPECIFICITY	13.	A benefit of physical activity. Includes less stress, improved self-esteem and better sleep patterns.
14.	CIRCUIT	14.	The ability to cope with the stresses of everyday life without fatigue.
15.	CONTINUOUS	15.	A benefit of physical activity. Includes more friends, more social events and greater participation in activities.
16.	INTERVAL	16.	A type of aerobic training that involves exercising in the aerobic training zone for a minimum of 15-20 minutes.
17.	FARTLEK	17.	The force that can be applied to a muscle, or group of muscles, during a single contraction.
18.	CONTRAINDICATED	18.	One of the three energy systems. Carbohydrate is the dominant fuel source and is broken down to provide energy over long periods of time.
19.	COORDINATION	19.	A training technique that involves exercising at different speeds. For example jog 400m, sprint 50m, jog 400m, sprint 50m etc.
20.	SOMATOTYPE	20.	A training technique that involves work periods followed by periods of rest

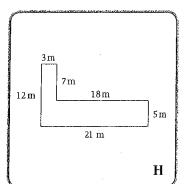
Katoomba High School Page 10

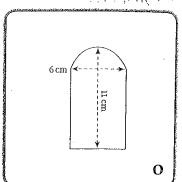
Area of composite shapes

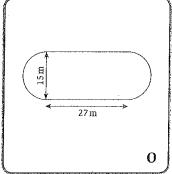
How long would it take to hard boil an ostrich egg?

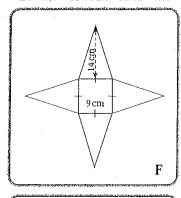
Find the area of the composite shapes or shaded regions below. Match the letters with the numbers in the code box to solve the riddle.

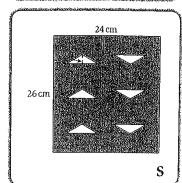


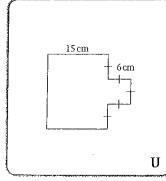


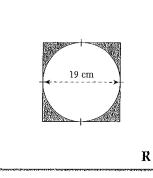


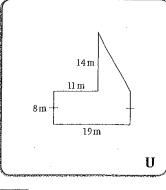












1		
1		

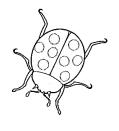


Basic Food Web and Food Chain

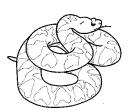
Basic food web

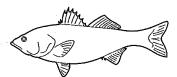
1 Draw arrows to illustrate the relationships found in this simple food web. Remember, the arrow means 'is eaten by'. The point of your arrow is directed at the organism eaten by whatever is at the base of the arrow.















Select one of the organisms above and construct a food web common to the species.

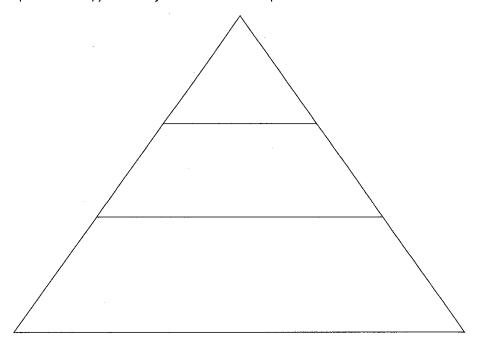


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Food pyramids

2 Complete the food pyramid using a food chain from the previous exercise.



3 What does the pyramid illustrate in terms of biomass of organisms?	
--	--

4	The nine letters in the word square spell a biology theme word. What is it?
	List 15 smaller words that can be spelled using some of the letters.
	The letters can only be used in a word as many times as they appear on the square

Notice to the second se	
	-
<u> </u>	

С	S	E
S	E	Μ
0	Т	Υ

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Worksheet 7-10

Decimals review

Did you know?

- The Chinese of about 2000 years ago used decimals similar to ours.
- In 1492, Francesco Pellos was the first to use the decimal point.
- 1 Write each fraction as a decimal.

	_
9	- 3
а	10

b
$$\frac{7}{10}$$

$$c = \frac{13}{100}$$

 $\mathbf{f} = \frac{2}{3}$ $\mathbf{g} = \frac{3}{4}$

$$i = \frac{13}{20}$$

l,	
L.	- 1
	- (

2 Write in decimal form.

$$a = \frac{7}{10} + \frac{3}{100}$$

b
$$\frac{16}{100} + \frac{2}{1000}$$

c
$$2 \times 10 + \frac{9}{10}$$

c
$$2 \times 10 + \frac{9}{10}$$
 d $\frac{4}{10} + \frac{3}{100} + \frac{7}{1000}$

$$e = \frac{21}{100} + \frac{15}{10000}$$
 $f = 13 + \frac{8}{1000}$

$$\mathbf{f} = 13 + \frac{8}{1000}$$

3 Write each decimal as a simplified fraction.

b 0.25

c 0.8

d 0.03

e 0.02

f 0.125

g 0.16

h 0.35

i 0.101

j 0.05

k 0.0008

1 0.0025

- 4 Place these decimals in ascending order: 2.451, 2.54, 2.145, 2.415, 2.5, 2.15, 2.4
- 5 Evaluate:

$$a 1.25 + 0.32$$

b 13.68 – 0.9

c 43.2 ÷ 8

d 1.25×3

e 50 – 13.18 – 7.096

 $f 14.4 \div 1.2$

g 16.35 + 9.28 - 3.831 **h** $(1.6 - 0.3) \times 5$

i $1.2 - 2 \times 0.3$

 $j = 6.4 + 3.7 \times 4$

 $k = 0.4 \times 0.3 \div 0.2$

 $1 \sqrt{0.25}$

 $m 34.16 \div 8$

 $n = 4.42 \div 0.4$

6 Complete the table by rounding each value to the required number of places.

	Round:	to one decimal place	to two decimal places
a	3.2348		
b	12.925		
c	0.9753		
d	0.7811		
e	6.283		
f	36.057		
g	0.01387		
h	99.999		

7 Calculate, correct to one decimal place:

a
$$(1.06 + 5.43) \times 3.2$$

b
$$(36-12) \div (4.8+1.5)$$

c
$$\frac{1.5 + 6.4}{3.65 - 2.58}$$

d
$$\frac{12.14 - (3.2 \times 4.1)}{6.51 \div 2.1}$$

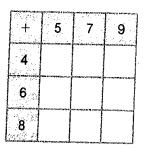
- 8 The Welcome Stranger gold nugget weighed 78.4 kg. How many gold rings of 35 grams each could be made from this nugget?
- 9 Divide \$61.92 between 4 people.
- 10 Dress material costs \$11.80 per metre. How many metres would \$70.80 buy?
- 11 0.25 kg of flour costs 86.5 cents. How much would 48 kg of flour cost?
- 12 A drink can holds 375 mL. How many litres of drink are there in a case of 24 cans?

WEEKLY TEST 17

- 5. A shop is selling coffee mugs for 98c. How much for 10 mugs?
- 6. Make out and total this bill:
 - 2 kg mushrooms at \$4.55 per kg,
 - 20 kg potatoes at 54c per kg,
 - 20 bananas at 10 for \$1.85,
 - 24 apples at 6 for \$1.

Looking back

- 7. Draw a sketch of a cylinder.
- 8. How many minutes in 3 hours?
- 9. Divide 963 by 9.
- 10. Without using calculators. Copy and complete:
 - (a) the addition square



(b) the multiplication square

	×	5	7	9
	4		Alexandra Alexandra	
Management of the Parket	6			
The second second	8			AV-COPARTON

Classroom Unit 7

oo as in balloon oo as in flood oo as in floor

igloo c	alloon baboon uckoo monsoon ood	bamboo cartoon poodle afternoor door floor		poor	mushroom
1 Use a dictionary	to help you find the de	finitions of the followin	g words		•
moor					
spoor		<u> </u>			
2 Write a suitable l	i st or champs' word ir	n the gaps in these ser	itences.		
By polishing the	,	the cleaner had made	crossing from	n the kitchen t	o the hallway a
slippery adventur	e.				
We ate our lunch	by the river and then	spent the rest of the $_$		explorit	ng the riverbank.
: In the	light it was	difficult to see which _		we sho	ould open to get
into the house.					
I When their favou	rite	appeared on the te	levision the cl	hildren laughe	ed loudly.
The hunter follow	ed the animal's	until it	disappeared i	into a thick for	est of
Which list or cha	mps' words				
	•	b lamad	og		
I am a caterpillar's house d I am an eskimo's house					
	ing		overflow of w	ater	
			ond of shallov	w water	
	contain 'smaller' word:				
		b the s	ound a cow m	nakes	
		dasph			
Vord Building	The panea along			·, {	
	oun A combined with t	hose in Group B to for	m compoun o	d words.	P
A	В	,			. []
after	room				(Alexa)
blood	light	,,			
honey	board				' /
toad	moon			For Ch	amne
	noon				-
bed	way			cocoon	bloodthirsty
moon	thirsty			spoor	tattoo
floor	stool	,		Weekly T	est Results:
trap				out of	10, plus Bonu
door	light	 _			•
flood	door			Champs	Points = Total

Home Study Unit 7

He tramped away from the shanty there, when the days were long and hot, With never a soul to know or care if he died on the track or not. The poor of the city have friends in woe, no matter how much they lack, But only God - and the swagman know how a poor man fares Outback! (Henry Lawson)

1 Write all of the list and champs' words ending in 'oor' in alphabetical order			
2	Match a list or champs ' word with each illustration		
3	Write one interesting sentence containing: poor harpoon lagoon		
4	Which word?		
а	greater quantity (moor or more?)		
	not rich (poor, pour or pore?)		
С	an animal track (spoor or spore?)		
d	open area of land (moor or more?)		
е	send flowing (poor, pour or pore?)		
f	skin opening (poor, pour or pore?)		
5	Unjumble the following list words and then write each in a sentence.		
	d p l o e o		
	n o m o s o n		
	d o l o f		
ν	ocabulary Extension		
	Use a dictionary to find the meaning of aloof and then write the word in a sentence to show its meaning.		
2	Write each of the champs' words in a sentence.		
	tattoo		
	spoor		
	cocoonbloodthirsty		
	bloodthirsty		
G	eneral Knowledge What am 1?		
1	I am an African country. My population is around 9 million. My capital is Yaounde.		
2	I am a small carnivorous mammal able to kill venomous snakes.		
3	I am a Muslim of mixed Berber and Arab descent. I live in North-West Africa. M		

All set for attack on TV-time snacks

A young mother walks down a supermarket aisle, tosses a bag of chips into her trolley and remarks, 'Okay, that's snacks for the kids' lunch box.'

It's not a joke. It's an advertisement watched repeatedly by children during after-school hours on Channel Ten yesterday, and one of dozens of commercials promoting junk food between 4 pm and 4.30 pm — prime time for school students.

Kaye Mehta, the chairwoman of the Coalition on Food Advertising to Children, said young viewers had rarely seen parental endorsement for junk food depicted in such an overt manner. 'Kids see this junk on television, they see small packages of junk in their lunch boxes, it becomes normality for them,' she said.

David Crawford, the co-ordinator of the Centre for Physical Activity and Nutrition Research at Deakin University, said his team had studied the viewing habits of more than 500 families. The study concluded that children who watched a lot of television were more likely 'to have a higher consumption of discretionary foods — snack foods they could hold in their hands that were more likely to be high in fat and sugar'.

But the research had not separated the effect of advertisements from that of overall television viewing. That question would be answered by two new studies. The first, in collaboration with Sydney University, would look at the foods bought by hundreds of Sydney families and cross-reference them against the television ads they watched. In a second Victorian study, children would be shown food ads and their responses tested.

Clare Collins, a senior lecturer in nutrition and dietetics at the University of Newcastle, said government intervention over food advertising would be 'a long-term investment, just as programs to control smoking have been'.

Tube Junk Food Channel Nine ad listing for 4 pm—4.30 pm vesterday

- 1. Kellogg's Froot Loops
- 2. Taronga Zoo with McDonald's
- 3. Philadelphia Cream Cheese
- 4. The reading writing hotline
- 5. The television show Hi-5
- 6. Cadbury's Freddo frogs
- 7. Water safety community announcement
- 8. Ribena fruit drink
- 9. Kellogg's Coco Pops
- 10. Philadelphia Cream Cheese
- 11. Seaworld Sea Watch
- 12. Kellogg's Froot Loops
- 13. Anudderworld anti-bullying community service announcement

Source J. Norrie, S. Creagh and J. Robotham, 'All set for attack on TV-time snacks', Sydney Morning Herald, 18 June 2004, p. 4.

Questions

- Why do you think commercials for junk food are often shown between 4.00 pm and 4.30 pm?
- 2. The study discussed in the article found that 'children who watch a lot of television were more likely to have a higher consumption of ... snack foods ... that were more likely to be high in fat and sugar'. Discuss possible reasons for this.
- 3. Why do you think Kay Mehta is concerned about the advertisement in which a young mother throws a bag of chips in a trolley and says, 'Okay, that's snacks for the kids' lunch box'?
- 4. Government laws should be used to control when and how junk food can be advertised on television. Discuss this statement, giving reasons for your opinion.

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6LM 10.1

CALCULATOR CROSSNUMBER



Use your calculator to help you complete the crossnumber puzzle below.

Across:



2.
$$\sqrt{289}$$

3.
$$\sqrt{1849}$$

5.
$$\sqrt{196}$$

11.
$$\sqrt{119^2-105^2}$$

12.
$$\sqrt{9^2 + 12^2}$$

13.
$$15^2 - 12^2$$

15.
$$\sqrt{136^2-120^2}$$

16.
$$8^2 + 2$$

19.
$$5^2 + 12^2$$

21.
$$50^2 - 48^2$$

22.
$$\sqrt{12^2 + 16^2}$$

23.
$$\sqrt{10^2 + 24^2}$$

24.
$$14^2 + 48^2$$

25.
$$25^2 - 24^2$$

26.
$$\sqrt{24^2 + 32^2}$$

28.
$$12^2 - 2 \times 13$$

31.
$$75^2 - 72^2$$

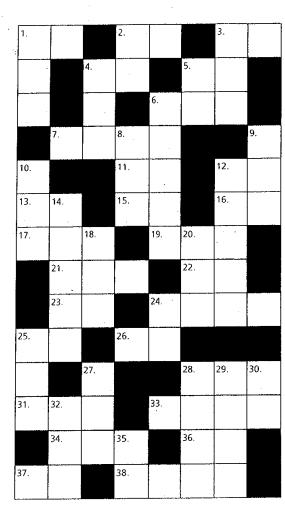
33.
$$175^2 - 168^2$$

34.
$$(20-1)^2$$

36.
$$\sqrt{8^2+15^2}$$

37.
$$\sqrt{5^2 + 12^2}$$

38.
$$50^2 + 55^2$$



Down:

2.
$$\sqrt{361}$$

5.
$$\sqrt{15^2-9^2}$$

9.
$$20^2 - 12^2$$

10.
$$8^2 + 15^2$$

18.
$$8^2 + 11^2 + 11$$

20.
$$7^2 + 24^2$$

24.
$$\sqrt{400}$$

27.
$$18^2 - (2^2 \times 2)$$
.

28.
$$38^2 - 4^2 - 4^2$$

29.
$$32^2 + 7^2 + 2$$

30.
$$15^2 - 12^2$$

32.
$$12^2 + 17^2$$

35.
$$\sqrt{17^2 - 8^2}$$



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