

Name: \_\_\_\_\_

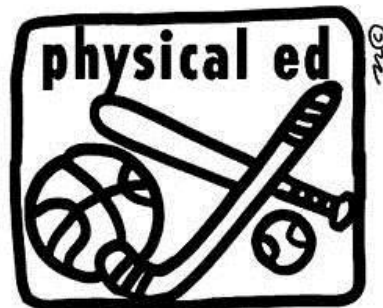
# Worksheet Booklet

## Katoomba High School

### Stage 5 (9B)



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#### Instructions

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



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## With a little bit of help

Tamara Neale is fighting her way back into the good life. Eight years ago she had it all: good health, happiness, a job, a steady income. And then she lost it.

Continuing illness, depression, a failed business and bad luck sent her and her husband into a downward spiral. They became poverty statistics in a country with a booming economy. They were caught at the sharp end of Australia's economic restructuring.

'Every day is a struggle,' says Neale, aged 31 years, who lives in housing department accommodation in Redfern. 'Have we got enough money for milk? Do we go into the piggy bank for bread?'

In the past two decades, the incomes of about 1 million Australians at the top of the pecking order have exploded into the stratosphere. And many middle-class people also enjoyed growing prosperity. But between 2 million and 3.5 million Australians were stranded in poverty.

The struggle of Australia's poor was the focus of a Senate report tabled in parliament this week. It is the first comprehensive inquiry into poverty since the Henderson report 30 years ago.

Source: A. Horin, 'With a little bit of help — Senate poverty', *Sydney Morning Herald*, 13 March 2004.

The Labor-dominated Senate community affairs committee found that poverty has become more entrenched and complex, inequality has grown, 700 000 children are growing up in a home where no parent works and 100 000 people are homeless. As well, it claims that 21 per cent of households, or 3.6 million Australians, live on less than \$400 a week.

Poverty in Australia, as the Senate study shows, is not about starvation, although some parents go hungry at times to provide for their children. It is about missing out on the ordinary experiences of Australian life and making painful decisions every day between, say, a carton of milk and a school excursion.

Writing of poor people in three communities, including Mt Druitt, for his book *The Lowest Rung*, Mark Peel says: 'Theirs was the poverty of always being behind, always being unable to afford things everyone else takes for granted and always putting up with run-down housing and poor health.'

It means too many bills come at once, a part-time job, a child with asthma or a broken fridge that spells catastrophe. 'If they envied rich people anything,' he wrote, 'it was their safe distance

from disaster.' The child welfare agency Barnardos told the Senate of a disaster that befell a South Coast housing estate where people could not afford medical treatment.

An epidemic of impetigo and scabies in 15 children, from babies to teenagers, broke out. 'There were small babies covered in weeping sores.' They had lived with this condition for months. Most of the parents had poor English, were unaware of their entitlements to health-care cards and could not afford the medication.

Barnardos persuaded a local GP to visit and the Department of Community Services to pay for the \$500 worth of scripts. 'Our concern is, what happens next time?' Previous outbreaks of head lice had resulted in parents shaving their children's heads because they could not afford the treatment, the children being taunted at school and then refusing to go.

The Senate document shows children from poor families have few possessions, little clothing and few educational toys or books. And as for the recent emphasis on parental choice of schools, Uniting Care Burnside told the inquiry, 'Poverty makes a mockery of such statements.'

### Questions

1. What types of decision do people have to make when they live below the poverty line?
2. In what ways does poverty affect children's education?
3. What evidence is there to suggest a strong relationship between poverty and poor health?



# Multiplying with pronumerals

## Catching balloons

Barry the balloon man has accidentally let go of all his balloons and he needs your help to catch them. Barry needs to join a string between the balloons and the weight boxes to help secure the balloons.

You can help him by drawing a string line from each balloon to the weight box with the matching answer. Barry has done the first one to show you what to do.

The worksheet contains the following multiplication problems on balloons and their corresponding answers in weight boxes:

**Balloon Problems:**

- $5 \times 2 \times m$
- $2x \times 6x$
- $\frac{1}{2} \times 4m$
- $7x + 3y + 2mx$
- $3 + 5 + 2y \times y$
- $9 \times 9mx$
- $10x \times my \times 3my$
- $11x \times 11y$
- $7m \times 5$
- $3xy \times 8m$
- $5 \times 5 \times y$
- $3 \times m \times m$
- $2xy \times m \times 3y$
- $5x \times 4x$
- $2 \times 2y$
- $4 \times 5x \times 2y \times x$
- $12m \times 3m$

**Weight Boxes (Answers):**

- $3m^2$
- $20x^2$
- $12x^2$
- $2m$
- $6mxy^2$
- $81mx$
- $30y^2$
- $36m^2$
- $121xy$
- $10m$
- $24mxy$
- $35m$
- $42mx^2y$
- $40x^2y$
- $25y$
- $4y$
- $30m^2xy^2$

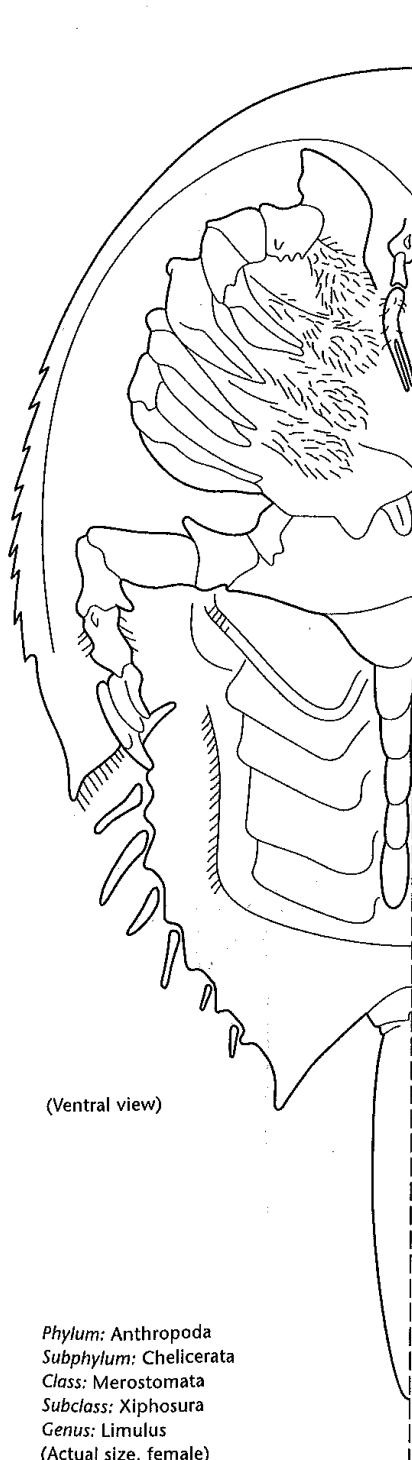
The first balloon with the problem  $3 \times m \times m$  is connected to the weight box containing  $3m^2$ .



# Scientific Illustration

7

Reproduce, as a mirror image, the second half of the horseshoe crab illustrated.



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# Worksheet 1-11

# Crossnumber puzzles

## PUZZLE A

### Across

- 1 Combined number of days in March and December
- 3 12 dozen less 8
- 5  $\frac{1}{20} \times 86\,400$
- 7 Millimetres in 7.21 metres
- 10 Highest common factor of 126 and 210
- 11 The product of two more than 49 and two less than 49
- 14 The result of taking 5 across from 7 across

### Down

- 1 4 cubed times 10
- 2 The first prime number between 20 and 30
- 3 100 000 increased by 2478
- 4 Years in six centuries
- 6 A cube number
- 8 The number of sides in a dodecagon
- 9 A baker's dozen
- 11 The square root of 625
- 12  $\frac{1}{4}$  of this number is 23
- 13 Can be divided by 9

1	2		3		4
5		6			
		7		8	
	9		10		
11		12			13
		14			

## PUZZLE B

### Across

- 1 First prime number after 31
- 2  $3^3$
- 3 Number of right angles in seven-and-a-half revolutions
- 5 11 divides evenly into this number
- 7 Lowest common multiple of 4, 6, 9 and 12
- 8  $3 \times \_\_\_ = 531$
- 11 Next number in the pattern 93, 91, 89, 87, 85, ...
- 12  $10^2$

### Down

- 1 1 stone equals 14 pounds; 22 stones = \_\_\_\_\_ pounds
- 2 The square of this number is 400
- 4 Days in 8 weeks
- 6 LXXXI
- 9 10 days short of two years
- 10 Mean of 76, 88, 73, 87
- 11 Months in seven years

1			2		
		3			4
5	6			7	
	8	9			
10				11	
12					

## PUZZLE C

Solve this number search

### Clues

- |                                      |                                       |
|--------------------------------------|---------------------------------------|
| 5 across $\times$ 5 across = 196     | 12 across + 3 across = 2 down         |
| 1 across = 1 down + 6                | 13 across - 2 down = 12 across        |
| 3 across = 10 across + 5 across      | 1 down = 2 down $\times$ 12           |
| 4 across $\times$ 5 down = 8 across  | 2 down $\times$ 5 = 6 down            |
| 6 across = 1 down $\times$ 4         | 2 down = 4 across $\times$ 6          |
| 1 across $\div$ 4 across = 12 across | 5 down = 5 across $\times$ 12         |
| 8 across + 4 = 9 down                | 6 down + 11 across = 11 down          |
| 11 across = 1 across - 5 down        | 1 down + 6 across + 8 across = 7 down |

1	2			3	
4			5		
		6	4	6	0
8	9				
	10			11	
12			13		

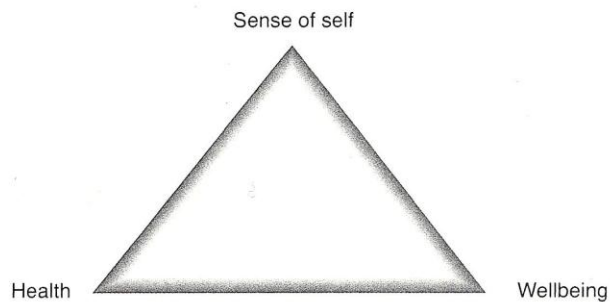


FIGURE 1.2 Sense of self, health and wellbeing are interdependent.

snapSHOT

## Boys just want to have abs

Amir decided he was fat at the age of 11. He'd never been particularly aware of his body before, but suddenly he began noticing the men on the front of the magazines his older sister read. 'I remember looking at their muscles and their stomachs, and they just looked so different to me,' he says now, four years later. 'The more I started looking around me, the more images I saw of men with muscles and six-packs. I remember comparing my soft and chubby [muscles] to theirs and feeling terrible. I knew they were older than me but I couldn't see how I could ever look like them if I didn't do something right away.'

So Amir started smoking. For a year he had a secret cigarette before every meal to curb his appetite and then another afterwards to blunt any hunger pangs he might still be feeling. 'I hated it,' he says. 'I could feel it doing me harm and I didn't like smelling of smoke the whole time. All my

friends thought I was stupid, and I didn't like lying to my mum.'

Despite his unhappiness, Amir continued smoking for a year until he shed the 6kg in weight he had decided to lose. Then he started exercising.

'I was too young to go to the gym so I persuaded my mum to buy me some weights and I used them every day.' He did 80 sit-ups every morning and the same number of push-ups. He lifted weights for an hour a day and became obsessed with watching his body change.

'I looked like a real man when the rest of my friends still looked like little boys,' he says, still proud. His pride subsides, however, when he holds out his arm. 'I can't straighten it any more,' he says. 'It's because I lifted too many weights when I was young. I tore my ligaments and they fused back together wrongly.'

There is another problem too: Amir is stocky and less than 1.5m tall. Both his older

brothers are more than 1.8m tall and slender. 'I think I stunted my growth so much because I worked out so much,' says Amir. 'All I wanted was to be like those men in the magazines the girls want to be with.'

For generations it has been young women who have been made to feel insecure about their body image. Increasingly, however, men — and boys — are being bombarded with images of perfection. Half-naked men with bulging biceps, glistening pecs and rippling six-packs grace magazines covers and the catwalks. Men are being left in no doubt about the shape they have to be in to be beautiful, and the quest is starting even younger.

At the extreme, these insecurities and unrealistic expectations of how a man should look are leading to a growing number of adolescent boys succumbing to eating and exercise disorders. A recent



study of male university students in Sydney conducted by Dr Jennifer O'Dea, an expert in the field, found that a fifth of the men surveyed worried about their weight and shape. And almost 3 per cent were suffering some form of eating or exercise disorder. Says O'Dea, 'The clinical cases of anorexia nervosa or bulimia nervosa that we see in boys present in exactly the same way as girls. But what we've found is that boys present at a slightly older age, around 20 or 21. But watch it change. You watch that age drop.'

O'Dea is concerned that body image problems may

pose a far greater problem among young men than among their sisters and girlfriends because of the emphasis boys tend to place on strenuous exercise. 'In order to have the perfect muscular physique boys need to lose fat and then build up muscle. This is physiologically very, very difficult. In fact, it's impossible for most boys.'

She predicts we'll see more and more young men with 'exercise disorders'. 'The prevailing view is that the more you do (exercise), the better. But the truth of the matter is that it can be quite dangerous to exercise too much. And, of course, an added problem is that as a

disorder it is often difficult to diagnose because in our society extreme exercise and fitness is held in such high esteem.'



*Source:* Extracts from L. van den Nieuwenhof & A. Hill, 'Boys just want to have abs', *Sunday Telegraph Sunday Magazine*, 7 March 2004, pp. 17-19.

#### Questions

1. Explain how a person's physical appearance can affect their sense of self.
2. Describe the problems (outlined in the article above) that some young males are experiencing.
3. Explain how the media can have an impact on a young person's sense of self.

#### Worksheet 1.1: Supporting myself

### skillBOOSTER communicating



#### Exploring your sense of self

1. In your workbook, describe how you see yourself and the things that you believe about yourself.
2. Do you think you have a positive sense of self? Why or why not?
3. Identify and explain the influences in your life that have contributed to the formation of your sense of self.
4. With a partner, develop a mindmap of the characteristics of a positive sense of self.





# Viruses: The Living Dead?

Viruses are tiny, disease-causing agents. They are able to reproduce, or *replicate*, which is a feature of living organisms, but to do so they require a living host. This is because they lack cytoplasm and organelles, which are needed to produce the energy required for replication. Viruses are little more than bundles of DNA or RNA (depending on the virus) and proteins.

The virus is made of two main parts, a nucleic acid-containing *head*, covered with a protein coat called a *capsid* and a *tail*. At the *base* of the tail is a needle-like projection used to inject the nucleic acid into the host cell. Host type, size and the nucleic acid they contain are the main ways viruses are classified.

To replicate, a virus must attach to a living host, inject its contents and wait for the host's energy-transforming capability to assemble *daughter* viruses. The host cell quickly becomes packed full of newly replicated viruses until *lysis*, or bursting, occurs. Each new virus attaches to another cell and the procedure is repeated. Since viruses are non-living, *antibiotics* are ineffective against them. Unlike living cells, a virus can survive many years without a host and still 'come back to life' when conditions are right. This is why scientists working with long-preserved bodies, such as mummies, must wear protective clothing until they are certain the remains are safe to work with.

Label the virus by unjumbling the letters.

1 pasicd  
2 (notipre oact)  
3 ehda  
4 clenueic acid  
5 seab  
6 ialt

1 \_\_\_\_\_  
2 \_\_\_\_\_  
3 \_\_\_\_\_  
4 \_\_\_\_\_  
5 \_\_\_\_\_  
6 \_\_\_\_\_

7 Rewrite the six incorrectly spelled words below.

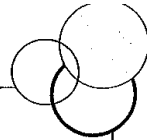
mutible sphere viris vacine strain isocahedron lisis bacteria imune virology

\_\_\_\_\_

\_\_\_\_\_

### True or false?

- 8 Lysis occurs when a cell bursts open. \_\_\_\_\_
- 9 Vaccines use dead or weakened strains of a disease-causing agent. \_\_\_\_\_
- 10 Nucleic acid is stored in the virus' tail. \_\_\_\_\_
- 11 Vaccines allow the immune system to recognise live forms of invaders. \_\_\_\_\_
- 12 Viruses do not contain their own proteins. \_\_\_\_\_
- 13 Viruses can not survive long without a host. \_\_\_\_\_



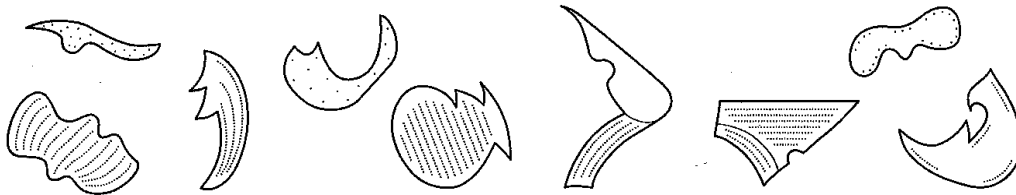
## Vaccines

Developing a vaccine usually involves using a dead or severely weakened form of a disease-causing agent. The immune system immediately recognises the invader as 'non-self' and sets about identifying the shape and assembly of its protein coat. This takes time but once done, the information is permanently stored in the immune system's memory bank. Later, should a live form of the invader appear, the immune system is able to mount an immediate and successful attack on the active form of the invader. In some instances, the immune system uses a 'lock and key' system to inactivate the invader. Having identified the shape, a key is assembled and attached to the disease-causing agent rendering it inactive. The lymph system then sets about destroying it.

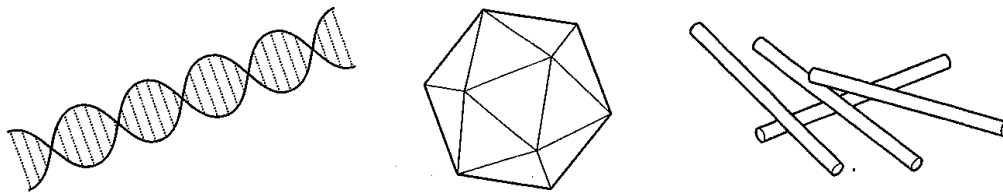
## Human Immunodeficiency Virus (HIV)

First identified in 1981, *HIV* has become one of the world's greatest viral killers. An RNA-containing virus, HIV attacks by destroying the immune system's important T-cells and other macrophages used in disease fighting. The weakening and eventual destruction of the body's immune system leaves it vulnerable to any infectious agent it encounters. This leads to a condition called *Acquired Immune Deficiency Syndrome*, or *AIDS*. Unfortunately, HIV is a highly *mutable* virus. This means it changes shape often, making it extremely difficult for researchers to develop a vaccine. The lock and key system would fail since only a tiny alteration in shape is required for the key to be ineffective and, should a weakened form of the virus be developed (this in itself a dangerous risk), another mutation in the active form could easily render the vaccine useless.

**14** Using three different colours, colour the three imaginary invaders with the same colour as their correct immune system 'key'.



**15** Viruses come in many shapes such as helical, rod, and the solid, 20-faced icosahedron. Label the shapes.



**16** Improve your vocabulary. Write in the missing vowels to discover the theme words.

C \_ P S \_ D

\_ N V \_ L \_ P \_

N \_ C L \_ \_ C \_ \_ C \_ D

P R \_ T \_ \_ N

P H \_ G \_

V \_ C C \_ N \_

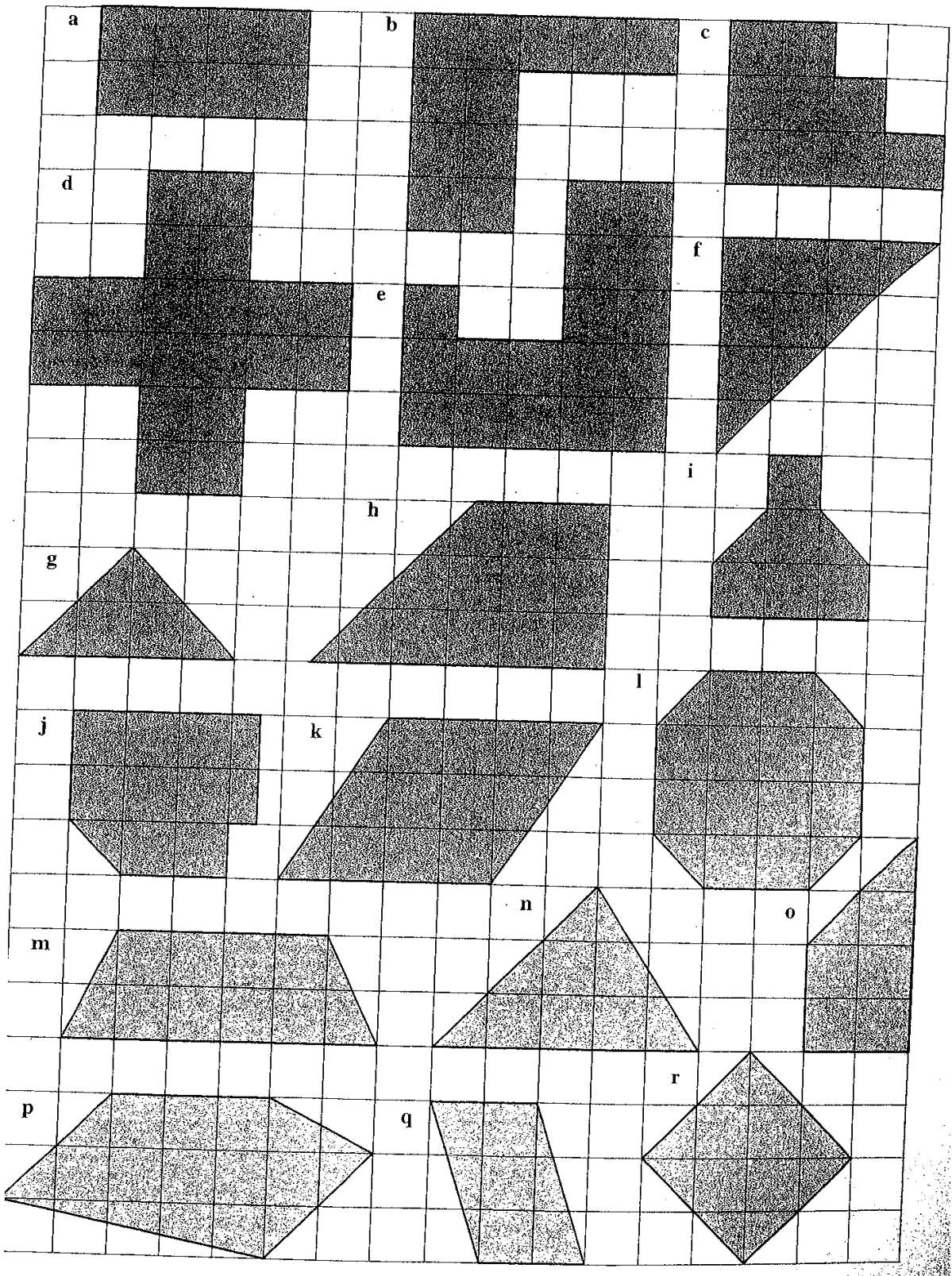
A large phage: M \_ C R O P H A G E

A small phage: M \_ C R O P H A G E



# Worksheet 8-06 Areas on a grid

Find the areas of these figures if each square on the grid is  $1 \text{ cm}^2$ .





## Health-seeking behaviours

As with your physical health, it is important to look after your mental health and seek help or support if necessary. The school counsellor, local doctor or the Kids Help Line are all useful sources of support.

You may also find it helpful to:

- talk things over with a trusted friend or adult. Sharing your feelings or concerns, rather than bottling them up, can sometimes help you through tough times.
- share time with people who you trust and who care for you
- be active. Even though it can be difficult to get motivated, try to do some exercise. Going for a ride, playing with friends or walking the dog may help you feel better.
- spend time doing things you enjoy.

### snapSHOT

## David has become a helper without peer

A Wairoa student is making a difference to the life of a person living with a mental illness through his involvement with the Compeer program.

David Aitken, 21, has been a Compeer volunteer since 2001 and he believes it's one of the easiest ways to help somebody.

Through the program he has befriended Andrew who became ill after leaving high school and as a result lost connection with his friends and became isolated.

David now meets with Andrew once a month for a movie, lunch and a chat.

'That's the idea of Compeer to help people out there by giving them friends to do stuff with,' he said.

'After any episode of mental illness you can quite often lose a lot of your friendships or find it difficult to relate.'

'He enjoys having someone to talk to and hang around with, it's just a bit of fun.'

At the same time David — who is doing a computing systems engineering course at the University of Technology — gets the satisfaction of being able to help someone.

'It's just a little thing you can do to help out with a big problem,' he said.

'Mental illness is such a big problem in Australia and other developed countries. Doing something this simple, just befriending someone, is not work.'

Compeer programs around the world are celebrating Compeer Friendship Week during May.

Funded and run by the St Vincent de Paul Society, Compeer helps people with a mental illness to participate in community life while learning to manage the stress that this may entail.

Compeer program manager Julie Hill said the scheme was in need of more volunteers.

'We have over 50 people on the waiting list in need of friendship,' she said. 'We really need volunteers to meet that great demand, which is growing.'

Source: T. Findlay, 'David has become a helper without peer', *Hornsby Advocate*, 6 May 2004, p. 16.

### Questions

1. Discuss why people who experience an episode of mental illness may lose friendships.
2. In your notebook, draw two mind maps — one that shows the benefits of the Compeer program for the person living with a mental illness and one that shows the benefits gained by the volunteer.
3. Share your thoughts with the class.

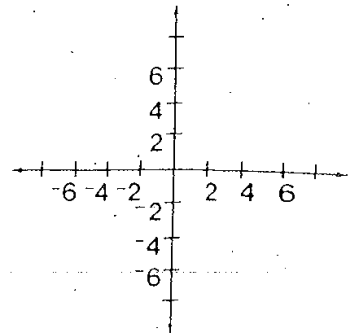




### NESSIE?

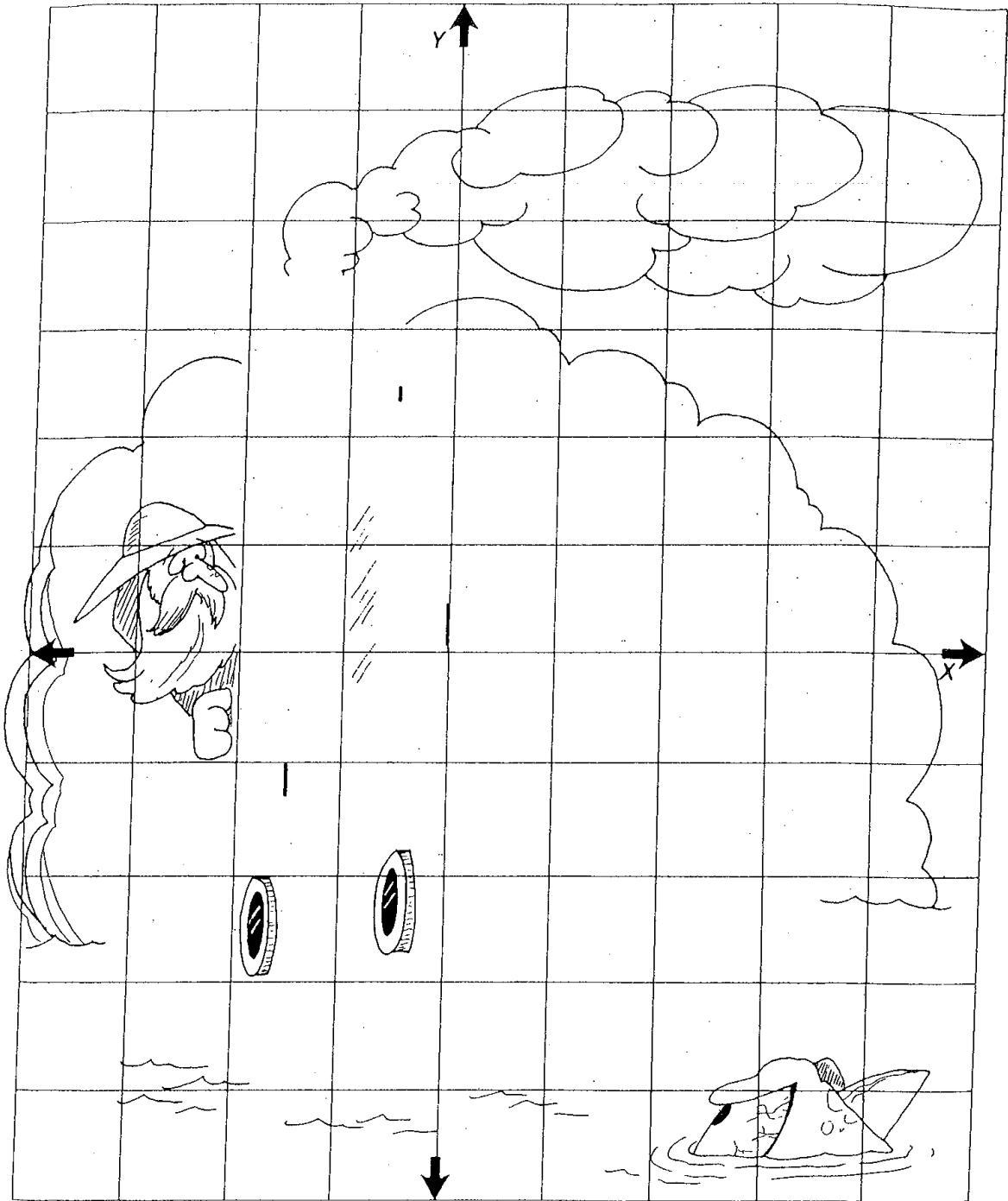
Using the arrows as guidelines, draw the axes on the graph on page 57. Number them as shown. You may wish to erase the axes when the drawing is finished.

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



- |          |        |          |         |
|----------|--------|----------|---------|
| (3, 2)   | (0, 1) | (-4, 5)  | (4, -7) |
| (3, 4)   | (0, 5) | (-1, 5)  | (5, -2) |
| (0, 5)   | STOP   | (-1, 7)  | (5, 3)  |
| (-3, 4)  |        | (-4, 7)  | STOP    |
| (-3, -2) |        | (-4, -3) |         |
| STOP     |        | (-7, -3) |         |
|          |        | (-7, -4) |         |
|          |        | (-5, -7) |         |
|          |        | (6, -7)  |         |
|          |        | (7, -5)  |         |
|          |        | (8, -1)  |         |
|          |        | (5, 3)   |         |
|          |        | (-2, -1) |         |
|          |        | (-2, 3)  |         |
|          |        | (-1, 4)  |         |
|          |        | (-1, -2) |         |
|          |        | (-4, -3) |         |
|          |        | STOP     |         |

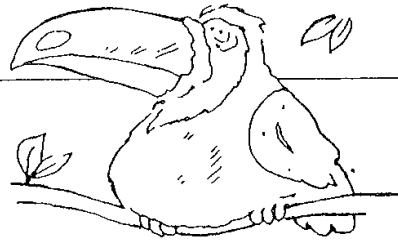
NESSIE?



# Classroom Unit 8 ou as in soup

## The List

you      soup      group      wound      youth  
coupon      route      rouge      routine      toucan



1 Write the **list** words in alphabetical order.

---



---

2 Which **list** or **champs'** words mean ... ?

a a young person \_\_\_\_\_ b a form to be filled in \_\_\_\_\_

c something always done in the same way \_\_\_\_\_ d an injury \_\_\_\_\_

e the way to go \_\_\_\_\_ f a tropical bird \_\_\_\_\_

3 Which **list** words are disguised below ... ?

a Great rogues often undergo punishment. \_\_\_\_\_

b Soon our uncles perform. \_\_\_\_\_

c We opened up Neville's desk. \_\_\_\_\_

4 Write in one interesting sentence: soup youth coupon \_\_\_\_\_

---

5 Use a dictionary to define ...

a uncouth \_\_\_\_\_

b rouge \_\_\_\_\_

c routine \_\_\_\_\_

6 Which **list** or **champs'** words contain ... ?

a 2 vowels and 3 consonants \_\_\_\_\_

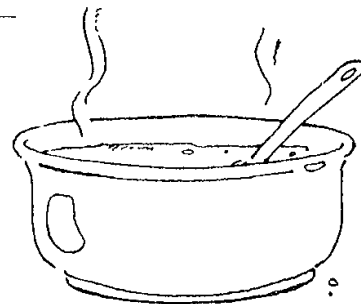
b 3 vowels and 2 consonants \_\_\_\_\_

## Word Building

Write these words in their contracted form ...

a you have \_\_\_\_\_ b you are \_\_\_\_\_

c you had \_\_\_\_\_ d you shall \_\_\_\_\_



**For Champs**      uncouth



# Home Study Unit 8

*He jests at scars that never felt a wound.*  
(William Shakespeare)

1 Find the **list** and **champs'** words hidden in this **wordsearch**. One word has been left out.

Which is it?

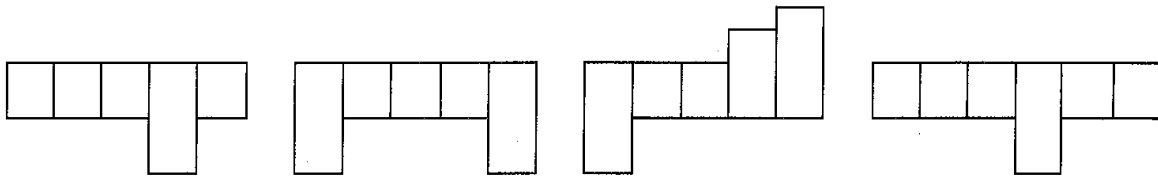
A	Y	T	Y	U	S	O	G
T	O	O	O	N	O	U	R
O	O	H	U	C	U	O	O
U	U	O	T	O	P	C	U
C	S	U	H	U	O	O	P
A	R	O	U	T	E	U	U
N	W	O	U	H	S	P	O
E	W	O	U	N	D	O	O
A	R	O	U	T	I	N	E



The missing word is \_\_\_\_\_

2 Write one interesting sentence containing: soup group uncouth \_\_\_\_\_

3 Which **list** words fit into these **wordframes**?



4 **Funny Pictures:** Draw ... a group of uncouth toucans slurping soup.

## Vocabulary Extension & General Knowledge

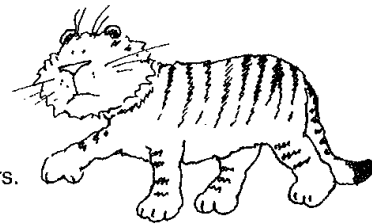
The following are unusual names for animal groups:

a clowder of cats, a sloth of bears, a labour of moles, an ambush of tigers.

Can you complete the following ... ?

a murder of \_\_\_\_\_ a pride of \_\_\_\_\_ a pod of \_\_\_\_\_

a pit of \_\_\_\_\_ a pack of \_\_\_\_\_ a troop of \_\_\_\_\_

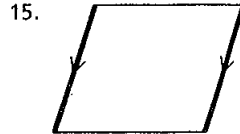
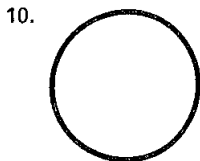
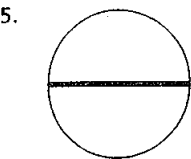
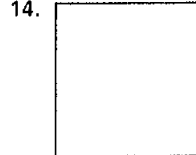
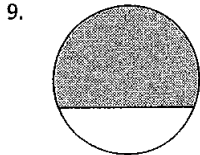
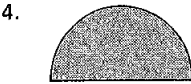
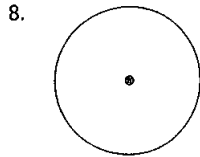
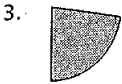
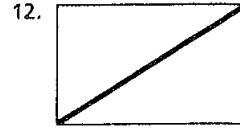
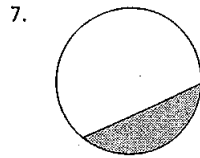
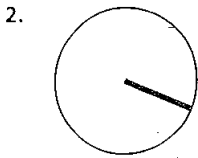
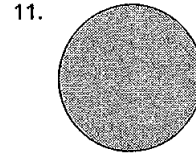
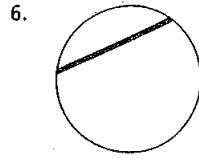
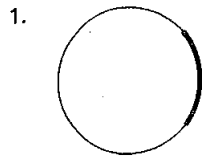


# 6LM 9.2

# MIX AND MATCH

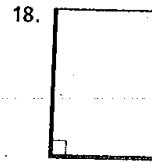
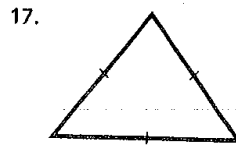
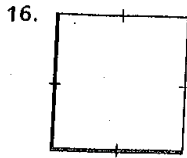
**TO THE TEACHER:** There are two pages for this activity. Copy this page and the following page.

Match each diagram (1. to 18.) with one of the given descriptions.



# 6.4M 9.2

# CONTINUED



- |                         |                     |
|-------------------------|---------------------|
| A. diagonal             | B. centre           |
| C. acute angle          | D. major segment    |
| E. parallel lines       | H. arc              |
| I. radius               | K. two equal sides  |
| L. circumference        | M. sector           |
| N. equilateral triangle | O. semi-circle      |
| R. diameter             | S. right-angle      |
| T. chord                | U. side             |
| V. minor segment        | Y. area of a circle |

When you have matched each diagram to its description, write the letters that go with the descriptions above the correct diagram numbers listed below to decode the message.

$\overline{12}$        $\overline{13}$     $\overline{2}$     $\overline{5}$     $\overline{13}$     $\overline{10}$     $\overline{15}$        $\overline{2}$     $\overline{18}$        $\overline{10}$     $\overline{2}$     $\overline{16}$     $\overline{15}$   
 $\overline{12}$     $\overline{17}$        $\overline{12}$     $\overline{5}$     $\overline{3}$        $\overline{8}$     $\overline{15}$     $\overline{13}$     $\overline{12}$     $\overline{14}$     $\overline{18}$     $\overline{15}$   
 $\overline{6}$     $\overline{1}$     $\overline{15}$     $\overline{11}$        $\overline{8}$     $\overline{4}$     $\overline{6}$     $\overline{1}$        $\overline{1}$     $\overline{12}$     $\overline{7}$     $\overline{15}$        $\overline{12}$   
 $\overline{5}$     $\overline{12}$     $\overline{9}$     $\overline{2}$     $\overline{14}$     $\overline{18}$

# HEALTHY LIFESTYLE

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

## Column A

1. \_\_\_ SLEEP
2. \_\_\_ RECREATION
3. \_\_\_ SOCIAL
4. \_\_\_ PHYSICAL
5. \_\_\_ VITAMINS
6. \_\_\_ WATER
7. \_\_\_ FIBRE
8. \_\_\_ FAT
9. \_\_\_ CARBOHYDRATES
10. \_\_\_ PROTEIN
11. \_\_\_ DEPRESSANT
12. \_\_\_ STIMULANT
  
13. \_\_\_ ALCOHOL
14. \_\_\_ VOMITING
  
15. \_\_\_ ECONOMIC
16. \_\_\_ MORBIDITY
  
17. \_\_\_ PSYCHOSIS
18. \_\_\_ MORTALITY
19. \_\_\_ THC
20. \_\_\_ HALLUCINOGEN
21. \_\_\_ AMPHETAMINES

## Column B

1. A nutrient that is our main energy source.
2. A type of drug that slows down the function of the CNS.
3. Short term consequences of a diet low in this nutrient are dehydration, dizziness and fatigue.
4. A long term consequence of a diet low in this nutrient are bowel disorders.
5. A long term consequence of drug use.
6. An essential lifestyle component. It is during this time our bodies relax, grow and repair.
7. An example of a \_\_\_\_\_ benefit of an active lifestyle is lower resting heart rate.
8. The incidence and prevalence of disease or illness.
9. The active ingredient in cannabis.
10. An example of a \_\_\_\_\_ benefit of an active lifestyle is meeting new friends.
11. A nutrient responsible for growth and repair.
12. Long term consequences of a diet high in this nutrient are increased body fat and an increased chance of heart disease and diabetes.
13. The number of deaths or death rate.
14. A type of drug that speeds up the function of the CNS.
15. A commonly used depressant drug.
16. Activities we choose to participate in because they are enjoyable. They can be classed as active or passive.
17. Employees taking more sick leave is an example of an \_\_\_\_\_ cost of drug use.
18. A slang term for this illegal drug is 'speed'.
19. A short term consequence of drug use.
20. A type of drug that can alter a person's perception of reality.
21. Short term consequences of a diet low in this nutrient are fatigue, anaemia, loss of appetite and susceptibility to infection.


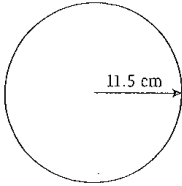
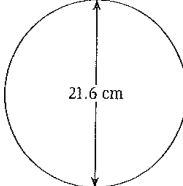
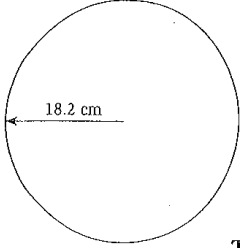
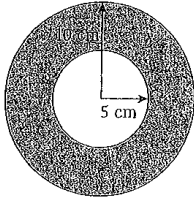
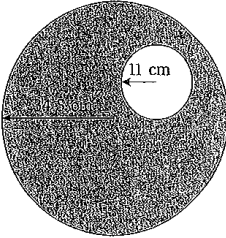
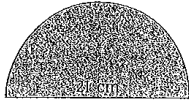
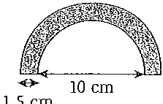
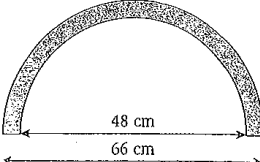


# Area of circles

What is 2000 kilometres long, making it the largest living structure on Earth?



Find the area of the circles and the shaded regions. Match the letters next to the shapes with the numbers in the code box to solve the riddle. Give your answers correct to one decimal place where necessary.

 H	 R	 F
 T	 A	 G
 B	 E	 I

1040.6 cm <sup>2</sup>	28.3 cm <sup>2</sup>	27.1 cm <sup>2</sup>

3359.1 cm <sup>2</sup>	415.5 cm <sup>2</sup>	27.1 cm <sup>2</sup>	235.6 cm <sup>2</sup>	1040.6 cm <sup>2</sup>

173.2 cm <sup>2</sup>	235.6 cm <sup>2</sup>	415.5 cm <sup>2</sup>	415.5 cm <sup>2</sup>	805.8 cm <sup>2</sup>	27.1 cm <sup>2</sup>	415.5 cm <sup>2</sup>

415.5 cm <sup>2</sup>	27.1 cm <sup>2</sup>	27.1 cm <sup>2</sup>	366.4 cm <sup>2</sup>



## Word Search: Viruses

Find the theme words listed in the grid below. The words may be written from left to right, right to left or diagonally from left to right, or right to left. Some letters appear in more than one word. You will be left with eight unused letters. Starting from the top left of the page, copy them down in the space provided to solve the clue.

1 Mystery word clue: A field of its own! \_\_\_\_\_

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

BACTERIA	ENERGY	IMMUNE	ORGANISM	SICK
BASE	ENVELOPE	INFECT	PAIN	STRAIN
BIND	FIT	KEY	PHAGE	TAIL
CAPSID	FORM	LOCK	PROTEIN	TINY
COAT	HEAD	LYSIS	REPLICATE	VACCINE
COIL	HELICAL	MANY	RODS	
DIE	ICOSAHEDRON	MUTABLE	SEAL	
DISEASE	ILLNESS	NUCLEIC ACID*	SHELL	

\* Although this is two words, the space between them is missing and they are listed as 'nucleicacid'.