

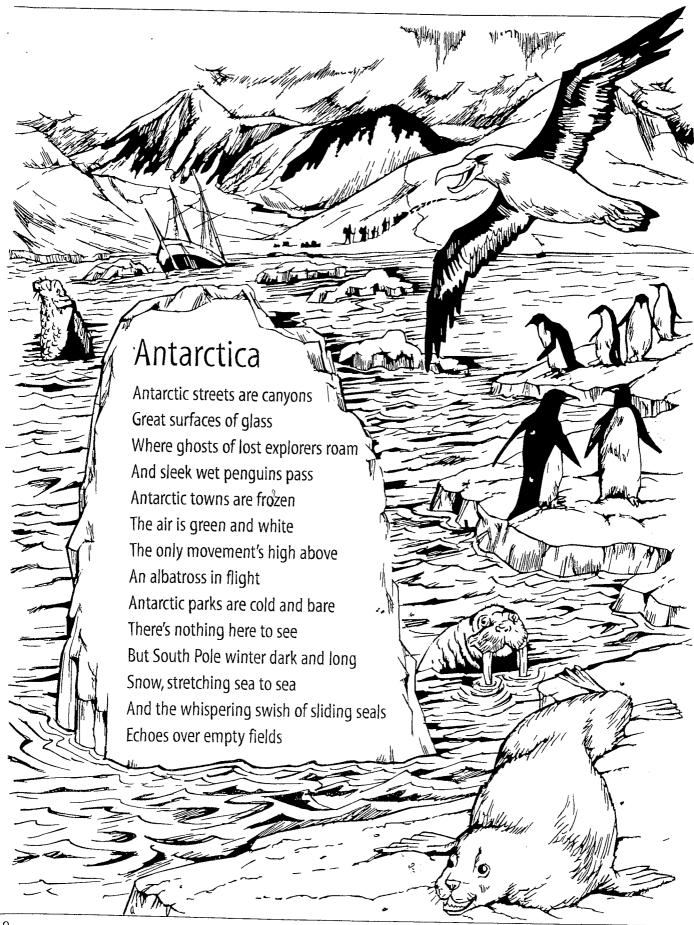
'Adventurous risk takers; persistent focussed achievement'

HOME LEARNING PACK

Term 1 2022

HUMANITIES

Antarctica is a modern sonnet. Traditional sonnets date from the 16th century. They have 14 lines. Sonnets can be on any topic but were often about love.



Comprehension	and	Word	Study
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1 Write any words and phrases in the poem which 🥥 describe the extreme coldness of Antarctica.



2	Alliteration is the repetition of the same consonant in the same line. For example, tropical torrents. Find three examples of alliteration in different lines in this poem.
	(a)

(b)

(c)

3 Onomatopoeia is the name for words that sound like their meanings; e.g. crash, bang. Write three examples from the poem.

4 There are three creatures mentioned in the poem. Write each one below and next to each, write a word that best describes how it moves.

(a)

(b)

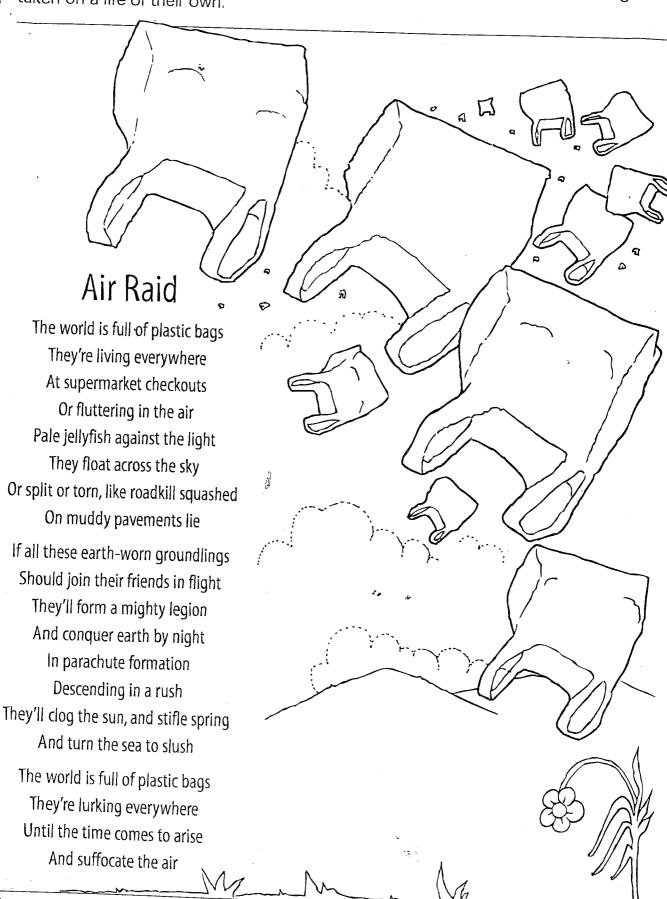
5 Poems use words to create an atmosphere that expresses the theme. Explain the main theme in Antarctica.

6 The poem talks about Antarctic streets and towns. Draw a picture of how these might look and describe your picture below.

Discovering Poetry

7 Think of different ways to describe the wind when it blows cold. Fill the wind gust with your words. 8 Imagine the Antarctic with icebergs, freezing seas and the biting winds. How would it feel to be there? Imagine you are in the Antarctic and complete the sentences. (a) I feel _ My breath _____ (b) (c) I can see ____ In the distance _____ (d) I am wearing _ (e) (f) Moving around here is _____ 9 Use these phrases to help you write a poem. Write it in the shape of an iceberg with one word on the first line, two on the second and so on.

Air Raid is a short narrative poem in lyric style written to express an idea. It uses a technique called 'personification'. Personification is a kind of comparison in which non-living objects are described as having human traits. In this case, the plastic bags have taken on a life of their own.



	Air Raid
Co	omprehension and Word Study
	How does the poet give the impression that plastic bags have declared war on the world?
2	Find words in the poem that match these meanings. (a) moving in the wind (b) arranged in lines (c) coming down (d) loitering
3	
4	Plastic bags are likened to people, but there are two other metaphors that compare them with creatures. (a) What are they?
	(b) Which of these comparisons do you prefer and why?
5	Describe the message of this poem.
	Write a letter to your local council asking for information about their policy or recycling. Remember to use formal language! Continue your letter on the back of this sheet.
S	

(b) V F C L L U T	Vrite an acrostic poem a	sir .	
	_	about pollution.	
	_	sir .	
(b) V	Vrite an acrostic noem a	sir .	
			1
1		**	
(a) \ 	Write your ideas in the b	OX.	U. J. States
abo	ut pollution on our plan		IN W
8 Use	some of those words	and more to exist a	
		,	
	Example: batteries	lead, heavy	MA .
		azardous) and need to be disposed of c	arefully S
			577
			7
(6)	Example: leftover food	radable (they return to the soil) smelly scraps	
(h)	Things that are biodog	radable (they return to the anall)	
	<u> </u>		
	Example: glass	shiny, sharp	
(a)		ifferent kinds of rubbish. ycled.	

įį J.

A metaphor is a direct comparison of one thing with another; for example, he is an angry bull. The poem below is an extended metaphor where the comparison continues in each stanza.

Atomic Me

公

江

I'm an atom charged with life
Electrons flowing through
An energetic force field
Shooting sparks at you

I jump, I leap, I'm free!
Wild atomic me!

My genetic blueprint
Has come from outer space
Molecules combining
I am the human race
I was meant to be
Unique atomic me!

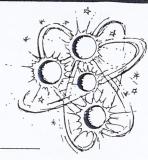
Neutrons, protons, I'm the source
Of each impulsive splurge
A cosmic blast across your path
A wild and untamed surge
I'll do anything you dare
I'm here, there and everywhere

Molecular, spectacular
Wild atomic
Supersonic
Wild atomic me!

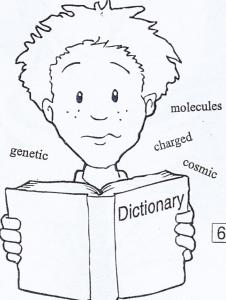


Comprehension and word study

- 1 (a) What are the main feelings expressed in this poem?
 - (b) Find three words in the poem to support your opinion.



- 2 Assonance is the name for vowels with the same sound in the same line; for example, Abbey adored apples. Write an example of assonance in this poem.
- Alliteration is the same consonant repeated in a line; for example, We could smell the salty sea. Write two examples of alliteration in this poem.
- (a) Homonyms are words with the same spelling but different meanings. For example, rock, rock. What meaning is given to the word 'charged' in the first line?
 - (b) Write another meaning for 'charged'. You may need a dictionary to help you.



- Find words in the poem that match these meanings. You may need a dictionary to help you.
 - (a) without thinking _____
 - (b) the only one
 - (c) of the universe _____
 - (d) a plan for action _____
 - (e) hereditary traits _____
 - (f) a sudden flow
- 6 What is the effect of the short lines in the last verse?
- This poem contains a number of scientific terms. For each one, write a phrase that could have been used instead, to create the same meaning in the poem.

electrons _____

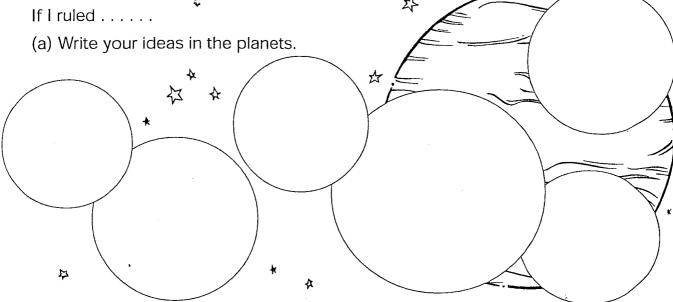
cosmic _____

molecules _____

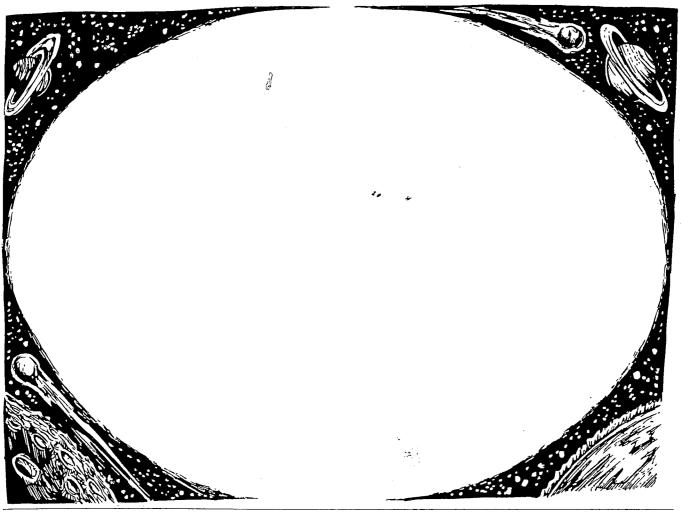
neutrons _____

8 There are nine planets in our solar system. What do you know about them? Choose one planet and brainstorm words and phrases about it. You may need to research the planet first.

9 Imagine that you are the ruler of a planet. Choose one and write a poem beginning with this phrase:



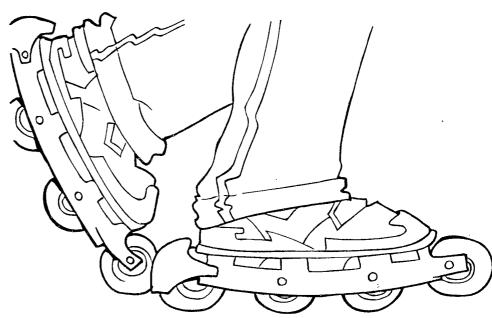
(b) Write your poem. Choose from a shape poem, rhyming poem or acrostic poem.



Rollerblading and Skateboard Skite are two action poems that are written in a lyric style. Lyric poetry is usually short. It expresses the poet's feelings about a particular topic, feeling or situation. In ancient Greece, such short poems were written to be sung to the music of a lyre—a stringed instrument made of tortoiseshell.

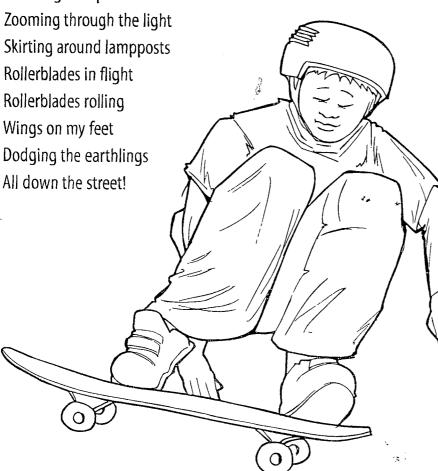
Rollerblading

Rollerblades rolling
Speed in my feet
Dodging pedestrians
All down the street
Swooping around corners
Swaying side to side
Feet in slow motion
Past each other glide
Shooting over pavements
Zooming through the light



Skateboard Skite

A silhouette against the sky
Watch him on his skateboard fly
An albatross in soaring flight
Mind free-falling, skateboard skite!
Spinning off the stairway edge
Down the steps, across a ledge
Full turns, a somersault or two
Just to show what he can do
Down the ramp and off the top
Poised above while others flop
Seamlessly his movement flows
Bending, flexing, on he goes
Leaning into every turn
Hasn't got a lot to learn
Zapping through the summer light



Proud and skilful skateboard skite!

Comprehension	
Alliteration is the same consonant repeated in to know your name. Write an ex	a line; for example, They never need ample of alliteration in each poem.
Assonance is the name for vowels with the sa e.g. cheap seat. Write an example of assonar	me sound in the same line; nce in each poem.
Onomatopoeia is the name for words that soun Find three examples in 'Rollerblading'.	d like their meanings; e.g. zing, flitting.
What do these poems have in common?	
What is the main feeling being expressed in each of these poems?(a) Rollerblading	
(b) Skateboard Skite	
6 Which poem do you prefer and why?	
· · · · · · · · · · · · · · · · · · ·	
	 7 To 'skite' is to boast or brag about something. (a) If you were going to tell a friend about something you are good at and which makes you proud, what would it be?

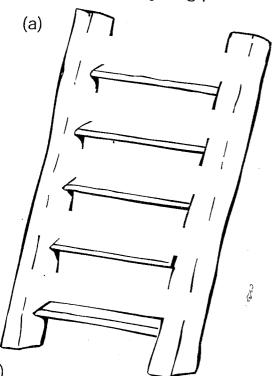
(b) Draw a picture of yourself doing your answer to (a).

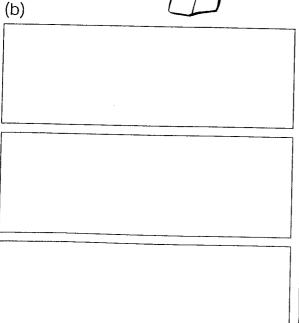
- Write phrases to describe the similarities in the following activities.

 (a) Windsurfing and surfing _____

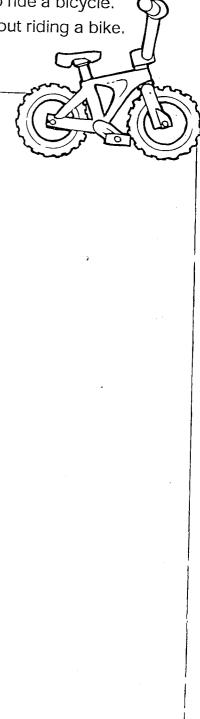
 (b) Gymnastics and trampoline _____

 (c) Walking and rupping
 - (c) Walking and running _____(d) Swimming and archery _____
- 9 Write a poem that tells a story about your first attempt to ride a bicycle.
 - (a) First, use the ladder to brainstorm rhyming words about riding a bike.(b) In each box, write two lines that rhyme.
 - (c) Write your rhyming poem.





(c)





Comprehension Skills

Many types of information are presented in lists, for example, bus timetables, computer programme menus, cooking ingradients and television programmes. Most lists have an order of some soft and ithelps your computer broadension if you understand the reasons behind the order. The TV programme listings provided here are sorted according to each programme's starting time. When reading a list first try to

90

Coronation Street (PGR, R) Emmerdale (PGR)

May the Best House Win (G) Dickson's Real Deal (PGR) 8 8.0 55

The Chase (G) 25

Millionaire Hot Seat hosted by Eddie McGuire 8

My Kitchen Rules New Zealand Seven Sharp 8 30 35

UK documentary series which follows the lives of the residents of James Benefits Street (Final, AO)

Turner Street, Birmingham, where 90% Castle (AO) When Beckett's life is in danger, the team searches for a way to save her while Castle keeps her of the residents are on welfare.

distracted by arguing with her about who fell for whom first. One News Tonight

Offspring (OA, R)

Kai Time on the Road (G, R) Korero Mai (G, R) Toku Reo (G, R)

SpongeBob Tarau Porowha (G) Pukana (G) 4.00 4.30 5.00

Nga Pari Karangaranga o Te Motu Toi Whakaari (G) News: Te Kaea 5.30 6.00 artists must create original human-bird

disease that could decimate the forests is under threat from kauri dieback, a #HAKANATION (G) 7.30

Hugh Grant, Jim Broadbent. A year In

the life of a young British woman as she struggles with various romantic

Film - Bridget Jones' Diary (AO, R)

hybrids,

2001 Renee Zellweger, Colin Firth,

Face Off (PGR) The four remaining

The Nutters Club (AO) Featuring Hamiora de Thierry. Native Affairs 8.30 10,30

Entertainment Tonight (PGR)

Breakout Kings (AO)

of the north

MAORI

Dora Matatoa (G)

Sticky TV (G) Featuring Go, Diego,

Gol and Monsuno.

SMASH! (G)

Sesame Street (G, R)

Pingu (G, R)

Everybody Hates Chris (G, R)

Just Shoot Me! (G, R) The Simpsons (PGR)

Project Matauranga The iconic kauri News: Te Kaea (R) Ako (G) 6.30

11.40 10.40 Te Kauta (PGR, R)

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The Block NZ (G, R) Baggage (PGR) Dr Phil (AO)

Jamie's 30 Minute Meals (G) The Biggest Loser (G, R) Rachel Ray (G) 3.00 4.08

Million Dollar Minute (G)

America's Funniest Home Videos

Home and Away

(G, R)

Friends (G, R)

5.30 6.00 6.30

Spongebob Square Pants (G, R)

Dog With A Blog

3.30 4.00 4.30 5.00

The 4.30 Show

The Angry Birds Toons (G, R)

The Ellen Degeneres Show

Shortland Street (PGR, R)

Jeremy Kyle USA (AO)

undertake a series of challenges to The Block NZ (PGR) The teams Campbell Live 4.55 5.25 6.00 7.00 7.30

Gang Related (New, AO) US Crime determine auction order, and which 3rd Degree With Samantha Hayes team knows their neighbours best. series in which a rising star in the and Duncan Garner. 8.40 9.40

> a bullet; Harry joins the cheats; Rachel Shortland Street (PGR) Josh dodges

shoots exactly the wrong target.

Mike and Molly (PGR)

vandalism; Danni may be angry if

she hears the truth.

7.00

Neighbours (G) Chris suspects

Miguel may have caused the

LAPD Gang Taskforce is torn between his loyalty to his job and the leader of one of the city's most dangerous

The Paul Henry Show (AO) Paul Henry wraps up the day's events.

10.40

Brooklyn Nine Nine (Final, PGR) The Big Bang Theory (PGR, R)

2 Broke Girls (AO, R) Suburgatory (PGR)

7.30 8.00 8.30 9.00 9.30

Surviving Jack (Final, AO)

MythBusters (PGR, R) Watch in slow motion to see whether the perfect The Doctors (PGR) The Test (PGR)

Noon 1.00 1.55

Hollywood power slide into a car park Whose Line Is It Anyway (PGR, R) The Crowd Goes Wild (G, R) is possible with a limousine,

The Late Show with David Letterman

Escape To The Country (G) The Crowd Goes Wild Deal Or No Deal (G) Prime News 5.00 6.00 7.00 7.30

MythBusters (PGR) The team test a trio of terrifying tales in a Halloween Silent Witness (AO) Part 2 of 2. 9.30

The Late Show with David Letterman Harry tangles with a Russian. Back Benches (PGR)



Television Guide - continued (121)

A Here and There

1a) List the names of all the channels shown on this TV Guide.

b) How many channels have a news programme?

c) Write the start time for each of the following programmes.

Dog With A Blog Sesame Street Seven Sharp Dora Matatoa

d) Name one series that is finishing.

e) Name a new series that is starting.

Most TV programmes have a letters after them that tells you what age the programme is suitable for or if its a repeat, new or final. Write the letter or letters that mean these things in the TV Guide.

General viewing Repeat Adults Only Parental Guidance Recommended

B Movie Time

1 Answer the questions about the film on TV this day.

b) What time is it on? What channel is showing the film?

What is the name of the film?

Who are the stars of this film?

Story Line

Read the descriptions about these programmes and answer the questions.

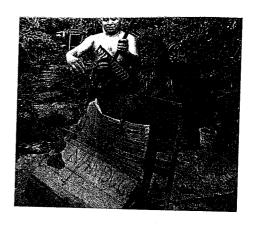
a) What is Project Matauranga about?

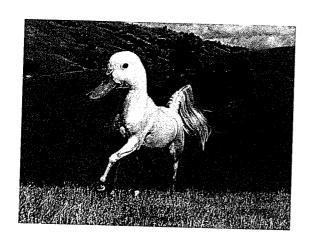
b) What myth are Mythbusters testing tonight?

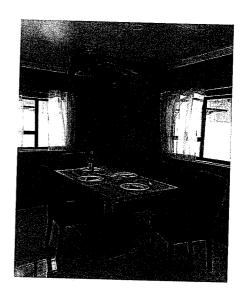
Action Signish 2 (2nd eatlor) by L. Davis. © Signia Publications Ltd 2015. ISBN 978-1-877567-65-0. A Copyright Licensing Ltd Icence is required to copy any part of this resource.

Write a sentence explaining why each of these pictures are strange.

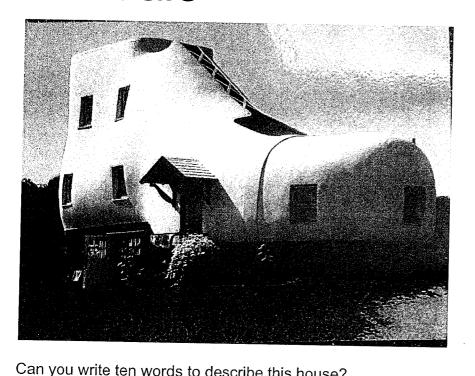








For Sale



Now try and write an advertisement that could go in the newspapers to encourage people to come and see this house, and hopefully buy it.

Why is the dog barking?



Is he happy? How do you know?
Where is he?
Can you write five sentences about this dog?

Yeast power

Structure

Title

.Yeast Power

Things you need

<u>Materials</u>



Balloon



150 mL warm water



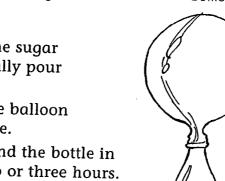
Three teaspoons yeast



Two teaspoons sugar



Narrow-necked bottle



Language features

Facts
Exact
details and
measurements

Commands e.g. 'put', 'place'

Diagrams

Sequence of steps

<u>Evaluation</u>

► What to do

- 1 Put the yeast and the sugar in the bottle. Carefully pour in the warm water.
- **2** Place the neck of the balloon firmly over the bottle.
- 3 Leave the balloon and the bottle in a quiet place for two or three hours.

If the gas blows up the balloon your experiment has worked.

Writer's Challenge

In procedures, verbs are often used at the beginning of sentences. These verbs are often in the form of commands such as 'put' or 'place'. Circle all the command words in the procedure above. Then make a list in the spaces below of eight different command words.

Fact file

Yeast is a very simple kind of plant called a 'fungus'. Fungi cannot make their own food, so they need to be fed. By adding some sugar to yeast you are 'feeding' it.

Write a procedure

Making damper

Work with your teacher and your class to make damper. Use books or recipes to find out what you need and how to make the damper. When you have finished eating the damper, write out the procedure so that you can make it again.

iruciure tle	How to make damper	
laterials	Ingredients	Utensils
uence steps	1	
	2	
	3	
	4	
ation		





Bring to school your favourite recipe to combine in a class recipe book.

Making a worm farm

Structure

Title -

Materials

Making a Worm Farm

Things you need

- @ a 2 litre plastic soft drink or fruit juice bottle, with the top cut off
- a large sheet of black cover paper
- leaf mould
- sand
- soil

- compost
- potting mix
- worms

soft drink bottle

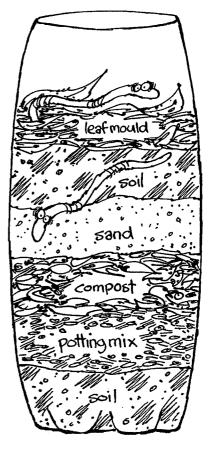
What to do

Sequence of steps

- Fill the bottle with layers of sand, soil, compost, leaf mould and potting mix.
 *N.B. The leaf mould and compost are important, because the worms eat these.
- 2 Add a little water to keep the bottle moist.
- 3 Add the worms and watch them burrow down.
- 4 Cover the bottle with a cylinder of black paper to keep out the light. (Worms like the dark.)
- 5 Place the bottle in a warm spot.
- **6** Check the bottle regularly, and you will be able to see the patterns the worms make as they move through the different-coloured layers.

Evaluation

Did the worms thrive and make interesting patterns? If so, your procedure has been successful.



Writer's Challenge

In a good procedure, everything should be explained clearly. Test your procedure by reading the text above and answering these questions:

- Why is black paper used? _
- 3 Why is water added in step 2?

Write a procedure

Stone pets

At last! Here is a chance to make a pet that doesn't need feeding or exercising. Sort out the ideas in the Fact File to make a stone pet. When you are finished, write a procedure showing exactly how it was done.

Structure Title		e.g. My Stone Swan
<u>Materials</u>	You will need	
Sequence of steps	What to do	_
•		Before: My pet before it was painted
valuation Are you leased with our pet? it friendly?		
, ,		After: My pet after it was painted
		, per and it was pullied

Fact file

Stone pets

Find some odd-shaped stones that look like animals. Use paint brushes and acrylic paint. Stick on tails (wool or string), ears (paper) and eyes (tiny buttons). Spray on paint when your pet is finished (to make it glossy). Before you start painting, wash and dry your stone. You will need water to keep the brushes clean.



Work in groups to create a puppet play, using your stone pets as characters. Perform your puppet play for the class.

YOUR PUP

A trip to the zoo

Structure → My trip to the zoo Language featur Title Last Wednesday our class went to the zoo. We went to Orientation see the butterflies and the reptiles, but I wanted to When? Who? look at the lions. Where? e.g. 'went', 'wanted', 'caught The bus took a long time to get there because we were Sequence of caught in the traffic. As soon as we arrived we got into events groups. Mrs Green was looking after us, and Jack was in Para. our group. Jack is naughty. He ran away twice. We found him near the bear's cage. We looked at the butterflies. They were beautiful. Afterwards, we visited the lion's cage. Two of them were Para. fighting. It was very exciting. Then it was time to go. Everyone got on the bus again. When we were nearly home our teacher had a funny look e.g. 'Jack'. Para. 3) on his face. We had left one person behind. It was Jack. The teacher had to jump off the bus to go and get him. Concluding When we arrived home everyone was talking about the sentence · Linking words person we left at the zoo. to do with time 'after', 'then', by Natalie, Year 4 <u>Author</u> 'when'

Past tense verbs

First person e.g. ", 'we'

The names of specific people 'Mrs Green'

Writer's Challenge

In recounts the events are told in the order that they happened. Make a short list of the things that happened on the excursion.

First			<u> </u>
(i)			
2			
3			
(4)			
(5)			
Last			

Write a recount

A trip to ...

Write about a trip or excursion that you or your class have been on lately.

	,
•	
A A A A A A A A A A A A A A A A A A A	





Write about one of the following:

- a visit you made to the zoo
- ▲ an adventure with your pet
- ▲ a visit to the vet.

Mummies

Structure

Title -

Classification Brief definition

Description

of topic

Series of paragraphs about the sub ject. New paragraph for each new topic

Conclusion . Sums up report

MUMMIES

Mummies are specially treated dead bodies.

The ancient Egyptians believed that when they died their spirits journeyed to the world of the dead if their bodies were properly looked after.

The bodies were treated with preservatives and wrapped in linen bandages.

The bandaged body (known as a mummy) was fitted with a face mask and placed inside a mummy case which was painted with hieroglyphs religious texts and images.

Mummies were often buried with supplies for the world of the dead. These included food drink furniture and models of workers who would work for them in the next world.

Mummies discovered this century are almost 5000 years old which shows just how effective this method of preserving bodies has been.

Language featur

Technical langua

Topic

Sentences lead in the main part o paragraph ..

Wrapped mummy

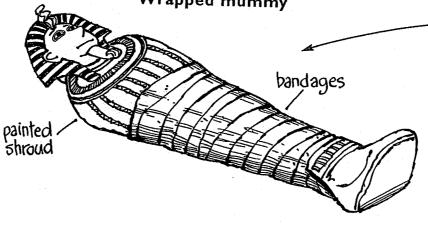


Diagram Some information reports include labelled diagram

Writer's Challenge

Look up the meaning of the word hieroglyph, and write it here.

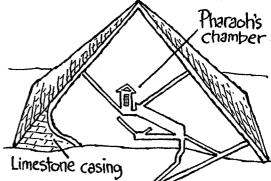
Design and draw a hieroglyph as a symbol for mummies.

Write an information report **Pyramids**

Use the fact file and the diagram to write an information report about Egyptian pyramids.

Egyptian pyrami	ds .

	This is what the Great Pyramid looks like inside.
	Pharaohis
	Chamber
	Charles (Charles)



Fact file

Egyptian pyramids

- The best-known pyramids are the three pyramids at Giza.
- The Great Pyramid at Giza was built 4500 years ago and is 146 metres high.
- There are over 80 pyramids at other places in Egypt.
- Pharaohs (rulers) were buried in pyramids with their clothes and jewellery.
- Pyramids were built with traps to protect the pharaohs.



Work with a partner, Create three pyramid nets of different sizes that you can cut out and fold to make the pyramids of Giza. Display them in the classroom.

Why do stars twinkle?

Structure

Title

Introduction Tells about the topic

Explanation sequence

Series of points telling how and why

Conclusion

To sum up explanation

Why do stars twinkle?

➤ When you look up into a clear night sky, you can see many twinkling stars.

These stars don't really twinkle; they just seem to.

There is a thick blanket of air around the Earth. The light coming from the stars must pass through this air.

As the starlight passes through, it shifts or moves about. This happens because of moisture in the air, changing air temperatures and the constant movement of the air.

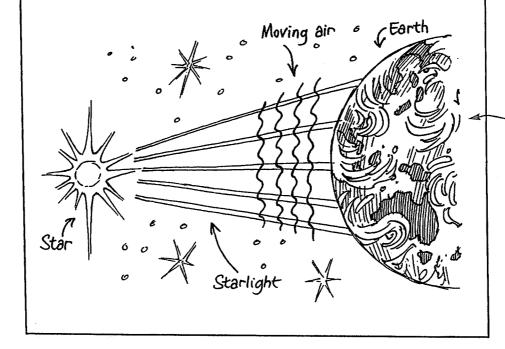
➤ The shifting starlight looks to us like twinkling stars.

Language features

Words telling how and why e.g. 'as', 'because', 'when'

Timeless present tense verbs e.g. 'passes', 'shifts', 'looks'

Labelled diagram or illustration



Writer's Challenge Paragraphs

Paragraphs are made up of one or more sentences that talk about a particular part of the topic.

How many paragraphs are in the explanation above?_

How many contain one sentence?

How many contain more than one sentence?

Write an explanation

Moon—Your own title

Use the information in the craters on the moon to write an explanation about why the moon shines at night. Remember to have a question in the title.

the moon does not shine with not sown light its own light the moon leffects in from the sun me

the sun shines on some part of the moon at all times during the day the sun's light is brighter than the moon's and you can't see it

The moon is always the sun

at night, no sunlight at night, no sunlight hides the moon and hides the moon clearly you can see it clearly

Introduction

Structure

Question in

the title

Title

Explanation sequence –

onclusion

More do

Draw: a clearly labelled diagram to illustrate your explanation.

Why do we feel dizzy when we spin around?

Structure

Title

Introduction

Explanation sequence

Conclusion

.Why do we feel dizzy when we spin around?

If you spin round and round, your sense of balance is affected and you feel dizzy.

Inside each ear there are three loop-shaped tubes (semicircular canals) with watery liquid in them. When you spin around, this liquid also spins around.

Special nerves pick up this movement and tell your brain that you are spinning of you stop suddenly, the liquid keeps on squishing for a while.

Your brain continues to get the message from your ears that you are moving, but gets another message from your eyes that you have stopped. The two messages do not match, and so the brain attempts to match them by making your surroundings look as though they are spinning, too.

That's when you feel really dizzy!

After a while, the messages will match and the dizziness will disappear.

The ear

Liquid filled Semi-circular loops for balance

Diagram
Many
explanations
include a
labelled diagram

Language feature

Technical terms

Words showing

how and why

e.g. 'if', 'when'

Timeless present tense

e.g. 'continues'.

'pick', 'are'

What did you learn?

Work with a partner. Explain in your own words what you learnt about dizziness and balance.

Writer's Challenge

Explanations contain verbs written in the present tense; for example,

spin = present tense

spun = past tense

Circle all the present tense verbs in the explanation. How many are there?

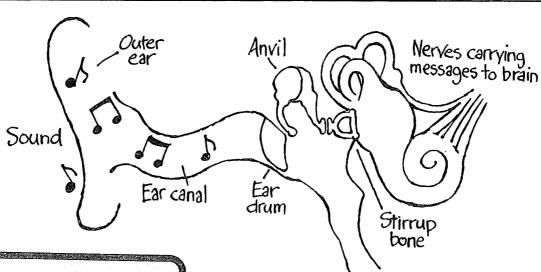
There are

present tense verbs.

Write an explanation

Why do we hear sounds?

Use the diagram below and the Fac	t File to write an	explanation about sound.
-----------------------------------	--------------------	--------------------------



act file

- Sound waves are vibrations in the air.
- Sound waves are collected by the outer ear.
- Sound waves cause the ear-drum to vibrate.
- The anvil, hammer and stirrup wobble and move the liquid inside the ear.
- Nerves pick up the liquid's movement and send messages to the brain.
- The brain makes sense of the nerve's messages and helps us to recognise the sounds.

More to

Rehearse your explanation and present it to your grade as a report. You might like to use diagrams and demonstrations to illustrate your points.

Why the bear has a stumpy tail

Structure

Title

Orientation When? Who? What?

Sequence of events



Resolution

A Norwegian myth

One fine day the Bear met the Fox, who was skulking along with some fish he had stolen.

"Where did you get all those fish?" asked the Bear.

"I caught them, of course!" said Fox.

"I'd love to catch fish," sighed the Bear. "Would you teach me?"

"It's easy," replied Fox. "Go to the ice, cut a hole in it and stick your tail down. You must hold it there for a long time."

The Bear sat with his tail in the hole for ages. He was shivering with cold.

"There must be lots of fish on my tail by now," he thought.

So he stood up quickly, turned around, and his tail SNAPPED off!! It had been in the water for so long that it had frozen.

So the poor Bear caught no fish and most of his tail had gone. And that's why the Bear goes about with a stumpy tail to this very day.

Language feature

Title begins with 'Why'

Myths explain 'why' things happen

Dialogue

When direct speech reported, inverted commas are used

Animal
characters
In myths there are
often good animals
(Bear) and bad
animals (Fox).

In the conclusion, reasons are given for why the bear has a stumpy tail.

Writer's Challenge	Myths often have animal characters who behave like humans. Read the story again to find out:
(1) Why the bear is not clever.	
2 Why the fox is cunning	
Myths come from every countr	y in the world. From which country did this myth come



An Australian myth

Write your own myth about an Australian animal. Choose from the list below, or make up one of your own.

- "Why the joey rides in the kangaroo's pouch."
 "Why the kookaburra laughs."
- "Why the frill-necked lizard has a spotted frill." S "Why the platypus has a duck's beak."

YOUR PURPLE

Structure	
<u>Title</u>	
Introduction	
Who? When?	
Who? When? Where? Why?	
·· <i>y</i> ·	
Sequence of events	
vents	
solution	
30 00000011	
L	



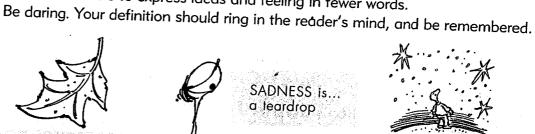


Why do animals have tails? Choose an animal. Draw it on a large sheet of paper. Write a short story explaining why that animal has tts kind of tail. Display your drawing and story in the classroom.

Definitions



A FRIEND is .. good to play with



A LEAF is... a tree's finger



we need to be able to express ideas and feeling in fewer words.

SADNESS is a teardrop



THE BEST SOUND is.. the silence of stars



SILENCE is ... goldeni Really, it is cruel and lonely.



GRASS is... the earth's blanket



An ideal way of preparing for poetry writing. Poems are shorter than stories, and

THE SUN is... an orange yacht sailing on pale blue paper.



A DOG is... a flea's best taxi.



MY CAT is.. a wild fluff that zips around the house.



LONELINESS is ... knowing nobody in a big crowd.



A FLOWER is.. for bees to rest on after a long buzz.



A LEAF is... green; as green as a cabbage.

Writer's Challenge

Adjectives are words which describe nouns; for example, a tall boy, a narrow passage, a secret cave, a purple person. Look in the text above and find these adjectives. Write the noun they describe in the space

	, the space.	
best		
wild		
big		
orange		
long		
pale blue		

Write a definition

Write definitions for these, then try some of your own.
These short sentences should be so refreshing that readers will remember them for ages.

LIGHTNING is		TROUBLE is	
G			
	AN ANT is		A RAINBOW is
BLACK is		A FEATHER is	
Page 1	A KITTEN is		BARK is
HAPPINESS is		A BABY is	Q\$
win	A GOOD BOOK is		PRIFTWOOD is



Write and illustrate some definitions of your own. Think of—FEELINGS—excitement, amazement, happiness, sorrow, anger, pity, or NATURE—blossom, wind, thunder, hail, sunshine, shadows, dirt, mud, crops, or ANIMALS—a horse, cat, kitten, puppy, lion, cockroach, giraffe, or PEOPLE—Nan, Mum, Dad, friend, teacher, neighbour, footballer, swimmer, or any other topic you could write about. Compare your definitions with your friends. Make a class booklet—Happiness is... Freedom is...

What I think about my writing

My writing goals (TO BE COMPLETED AT THE	E START OF THE YEAR)	
Things I can do		
DECEMBER		
Things I need to improve		
ECEMBER		
		•

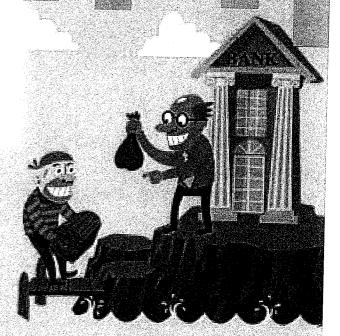
MATH

All That Glitters

Activity

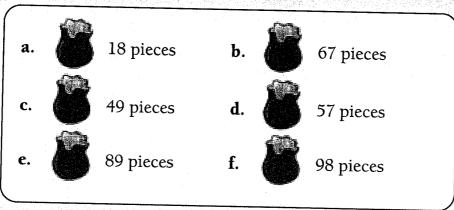
Supple-Jack Jones is a pirate on the high seas. He stores his big bags of gold in a treasure chest. One day, Supple-Jack Jones decides that his gold would be safer in the bank.





The bank manager tells Supple-Jack Jones that he can only bank the gold in lots of 10 pieces, for example, bags of 50 pieces or 80 pieces.

How many pieces of gold will Supple-Jack Jones need to add to each of these bags so that he can bank them?



- Supple-Jack Jones fills each of his six bags to the nearest 10 pieces of gold. How many gold pieces is Supple-Jack Jones going to bank altogether?
- Now that Supple-Jack Jones has filled each bag to the nearest 10 pieces of gold, he is going to bank the bags.

He is only allowed to bank 150 gold pieces a day.

How many days will it take him to bank the six bags of gold?



Dining on Digits

Problem One

Room 12 made a coin trail with \$25 worth of 10 cent coins.

Measure a 10 and a 50 cent coin and then answer these questions:

- a. How long was the trail?
- b. How long would \$25 worth of 50 cent coins be?

Problem Two

Using the digits on two cubes, all the dates 01, 02, 03, ... 29, 30, and 31 can be shown on the desk calendar. The cubes are interchangeable.

What digits are on the cubes?

Problem Three

What is the largest number of pieces a pizza can be cut into with five straight cuts? (The pieces can be any size or shape.)

Problem Four

Jean-Pierre looks at the bookings for his restaurant for Saturday night.

There will be two groups of eight, three groups of six, one group of five, three groups of four, two groups of two, and one person on their own.

The restaurant tables are square and can be joined together. Only one person can sit at each side of a table.

What is the minimum number of tables Jean-Pierre needs to use for Saturday night?



Expanding Horizons

Mt Everest (Sagamatha) 8 848 m

K2 - Mt Godwin Austen

Anapurna

Mt Cook (Aorangi)
3 754 m

You need 🖊 a calculator 🗸 a ruler

Activity

Paora, an explorer and mountaineer, kept a log of his ascents of mountains around the world. He wrote down the heights above sea level of the mountains.

> What is the total height of the mountains he climbed?



river journeys looks like this: How many kilometres has Mae Ling travelled so far?



The ship that Vione works on sails around the Pacific Islands delivering cargo.

6 516 km Amazon 6 695 km Nile Murray-Darling 3 750 km 290 km Whanganui 322 km Clutha

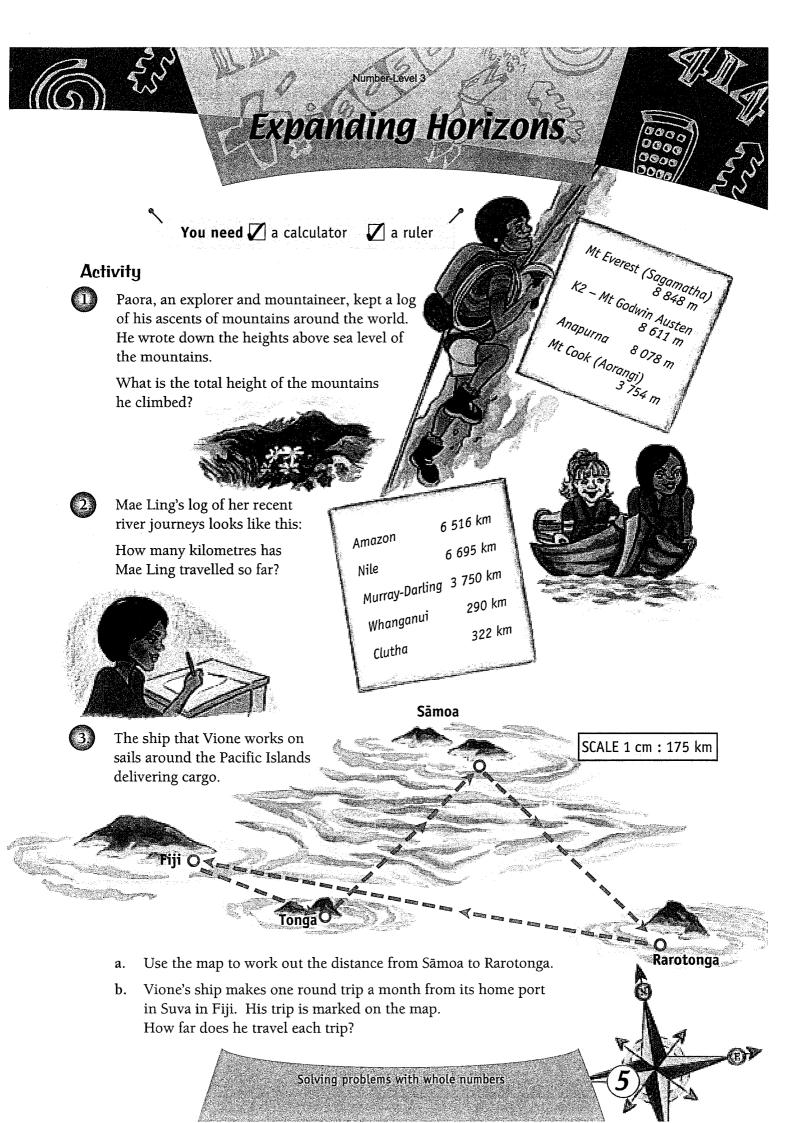


SCALE 1 cm: 175 km

Use the map to work out the distance from Sāmoa to Rarotonga. a.

Tonga

Vione's ship makes one round trip a month from its home port b. in Suva in Fiji. His trip is marked on the map. How far does he travel each trip?



Applying problem-solving strategies

To the Wire

Problem One

- Draw five straight lines on a clock face to divide it into six regions.
 The clock face numbers in each region must add to the same total.
- b. Can the clock face be divided into three regions with numbers that add to the same total? How?

Problem Two

Melody bought a guitar for \$75 and sold it later for \$90. She bought another guitar for \$100 and later sold it for \$120.

How much money did she make from her deals?

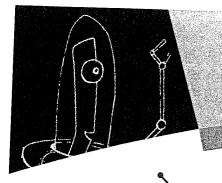
Problem Three

How many different triangles can you find in this shape?

Problem Four

Some cheeses are made in the shape of a large cylinder. A straight wire is used to cut the cheese.

- a. What is the largest number of pieces the cheese could be sliced into with three cuts?
- b. What about four cuts?



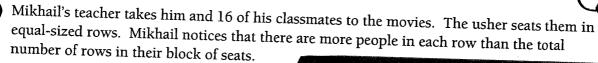
Movie Math



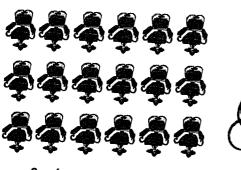


You need 🛮 a classmate

Activity



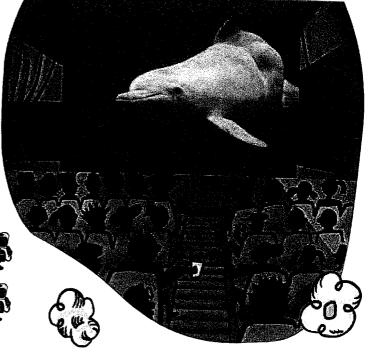
Here are the ways they could be seated:







2 x 9







For the following numbers of people, how many different combinations of equal rows can you make with more people in each row than the total number of rows in the block?

- a. 24
- b. 32
- c. 27
- d. 64
- 50
- f. 48



How many different combinations of equal rows can you make out of 48 people if the rows can be any length?

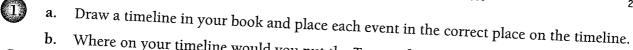


- If everyone in your class went to the movies, what equal-sized rows could they sit in?
- What if the class next door went to the movies with your class, too? Make up a similar problem for a classmate to solve. Use a different context, such as plants in a garden or chocolates in a box.









Where on your timeline would you put the Treaty of Waitangi?

What does your timeline show about the last 2 000 years of New Zealand history?

Make a timeline of important events for you and your family.

How Long Is a Name?

LOOLS

l" squares Pencil

aper

I M OI

To introduce the statistical concepts of mean, median, and mode, and to provide practice in making a bar graph

- □ Make a list of the names of your family and some relatives or friends.
- Write the letters of each name on the $1^{\prime\prime}$ squares, using one square for each letter.

一年 年

☐ Write the number of letters in each name, and the person's initials, on another square.

☐ Line up the names from longest to shortest, as shown in the

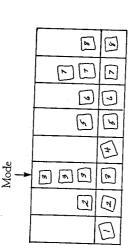
- names. To do this, move letters from the longer names to fill in rows have the same number of letters, or as close as possible.) the shorter ones, until all the rows have the same number of $\hfill\Box$ Find the average that is called a mean of the lengths of the letters. (It doesn't matter where the letters go, as long as the
 - ☐ The **mean** in our example is a little less than five, because all the names evened out to be five letters long, except one.

 $\hfill\square$ Now put out the squares with the numbers that tell how long each person's name is. Arrange them in numerical order:



Dind the center number in the row. This is the median. In our example, "5" is in the middle, so five is the median for this example. If there are two numbers in the middle, add them together and divide by two to compute the median.

□ Next, glue all of the numbers onto a bar graph like the one shown here. Look for the number which occurs most often. This is called the mode.

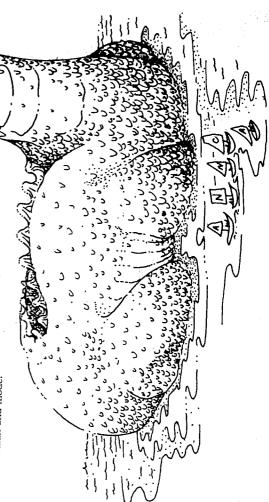


To summarize, our sample group has:

- a mean name length of 4.8,
 - a median of 5, and
- a mode of 3.
- □ What happened with your group of names?

More Ideas

- □ Talk about the difference between means, medians, and modes. Why don't they all come out the same?
 - □ Can all graphs have means and medians?
- □ Can there be a graph that has the same number for the mean,

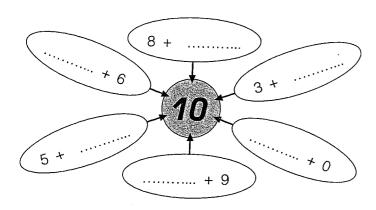


Making Ten

Adding and Subtracting

The magic ten

Fill in the missing numbers to make ten.



Fill in the missing number to make ten.

a)
$$6 + 2 + \dots = 10$$

b)
$$3 + 4 + \dots = 10$$

c)
$$3 + \dots + 2 = 10$$





Example Find
$$f0 = 4 = 4$$

Think: Since $4 + 6 = 10$, then $10 - 4 = 6$

Answer: $10 - 4 = 6$

Jot down the answers to these.

a)
$$10 - 6 = \dots$$

a)
$$10 - 6 = \dots$$
 b) $10 - 2 = \dots$

4 Complete these sentence.

a) Half of 10 is

o) Double 10 is

B Finding matching numbers

When adding a string of numbers, look for pairs of numbers that make ten. Examples : Add a) 5 + 4 + 6 + 5 = ... b) 1 + 3 + 4 + 9 + 7 = Working: a) 5 + 4 + 6 + 5 = 10 + 10 = 20 b) (1 ± 3 ± 4 ± 9 ± 7 ≥ 10 ± 10 ± 4 = 24

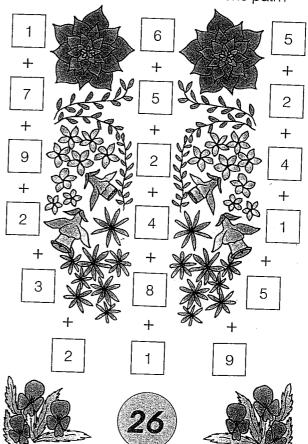
1 Add these strings of numbers.

a)
$$2 + 7 + 8 = \dots$$

b)
$$5 + 9 + 6 + 5 + 4 = \dots$$

c)
$$3 + 6 + 7 + 2 = \dots$$

2 Find a path on which the numbers add to 26. Colour it red. Is there more than one path?





Problems and Puzzles



A Cross number

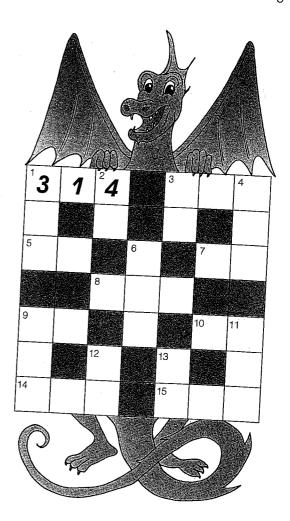
Each square in the cross number puzzle must hold one figure only. The answer to Across 1 is 314 and has been written in the puzzle.

Across

- three hundred and fourteen
- 3. nine hundred and six
- halfway between
 30 and 40
- 7. 6 tens
- 8. one less than one thousand
- 9. one ten and 14 ones
- 10. two more than 69
- 14. halfway to 1000
- 15. 2 hundreds more than 643

Down

- 1. 300 + 80 + 3
- 2. two tens more than 26
- 3. one ten under 100
- 4. halfway between 600 and 700
- 6. skip counting in fives, the number before 400
- 9. two hundred and forty-five
- 11. 12 tens and 3 ones
- 12. halfway to 100
- 13. skip counting in twos, the number before 100



B Paying with ten dollar notes

1	Next Friday, Lily's class will be going on a trip. The teacher asked the children to bring ten dollars each
	Lify's class will be going on a trip. The teacher asked the oblider to be a
. \	dance the children to bring ten dollars each

a) How much money is in the kitty after 7 children have paid up?

b) How much money is in the kitty after 15 children have paid up?

c) On Thursday all the children in the class have paid the money.

There are 220 dollars in the kitty. How many children are in Lily's class?



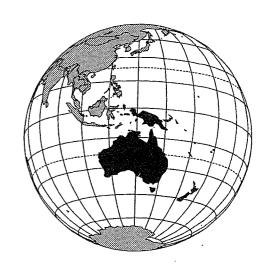
Mrs White is buying groceries in the supermarket. In total, the bill is one hundred and eighty-six dollars. Mrs White has a bunch of ten dollar notes, she has no coins.

a) How many ten dollar notes should Mrs White give the check-out perso.

1			
h)	H0111 75 - 11 11		
10)	How many dollars change does Mrs White get?		
	deliging change does long write det.		

SOCIAL STUDIES

Know Australasia!



? THE WESTERN PACIFIC

? LARGE ISLANDS

Australia Borneo Japan Java

New Guinea

Hainan

New Zealand Philippines Sulawesi (Celebes) Sumatra Taiwan

Tasmania

? OCEANS & SEAS

Indian Ocean Pacific Ocean Arafura Sea Banda Sea East China Sea South China Sea Coral Sea Sea of Okhotsk Tasman Sea Timor Sea Yellow Sea

? PENINSULAS

Kamchatka Korean Malay

?

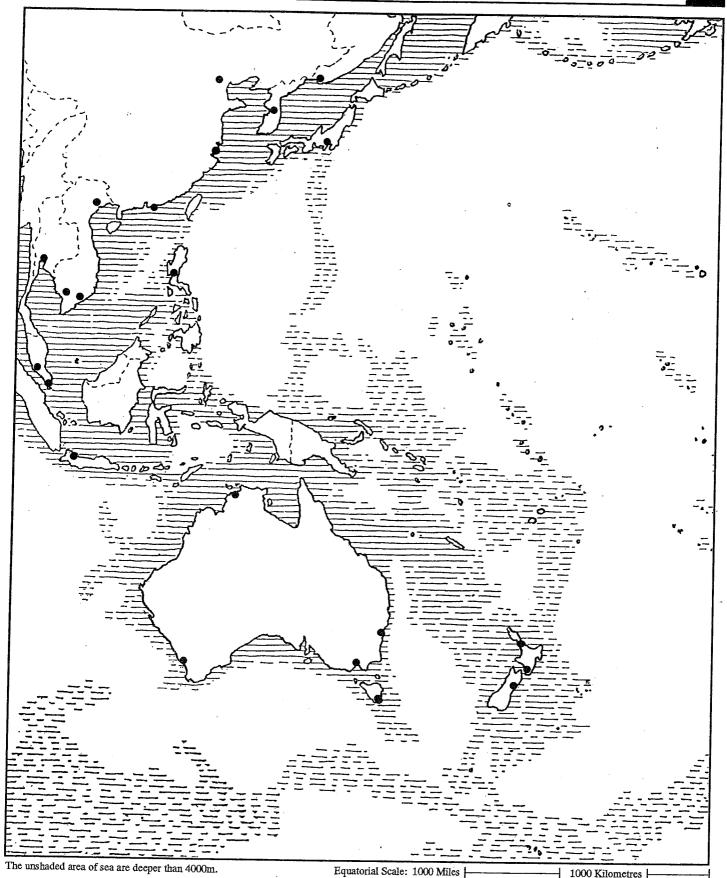
Auckland Manila Bangkok (Krung-Thep) Melbourne Beijing (Peking) Perth Christchurch Phnom Penh Darwin Shanghai Hanoi Singapore Hobart Soul (Seoul) Ho Chi Minh (Saigon) Sydney Hong Kong Tokyo Jakarta Vladivostok Kuala Lumpur Wellington

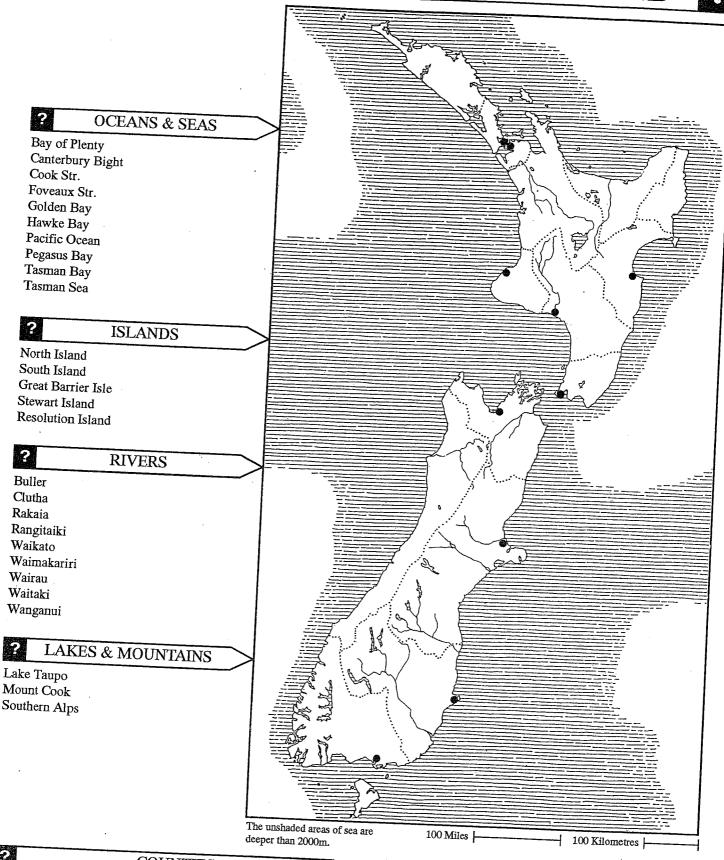
CITIES

SMALL ISLANDS

Aleutian Islands
Christmas Isles
Fiji
Kiribati (Gilbert Islands)
Kuril Islands
Hawaiian Isles
Marshall Isles
Midway
New Caledonia
Solomon Isles
Timor
Tuvalu (Ellice Islands)

THE WESTERN PACIFIC



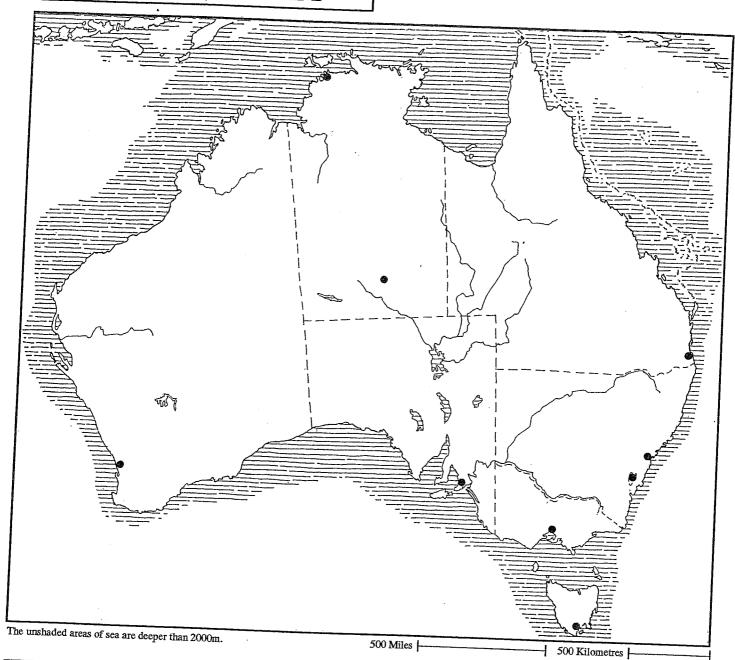


COUNTIES

- 1. Auckland
- 6. Manawatu-Wanganui 2. Bay of Plenty 7. Nelson-Marlborough
- 3. Canterbury 8. Northland 9. Otago
- 4. Gisborne
- 5. Hawke's Bay
 - 10. Southland
- 11. Taranaki
 - 12. Waikato
 - 13. Wellington
 - 14. West Coast

CITIES & TOWNS

Auckland Napier Christchurch Nelson Dunedin New Plymouth Invercargill Wanganui Manakau Wellington



OCEANS & SEAS

Indian Ocean Pacific Ocean Arafura Sea Coral Sea Tasman Sea Timor Sea

2

Bass Str. Botany Bay

Great Australian Bight Gulf of Carpentaria Joseph Bonaparte Gulf

STATES & CITIES

Australian Capital Territory
New South Wales
Northern Territory
Queensland
South Australia
Tasmania
Victoria
Western Australia

Adelaide
Alice Springs
Brisbane
Canberra
Darwin
Hobart
Melbourne
Perth
Sydney

2

LAKES & RIVERS

Lake Amadeus Lake Barlee Lake Eyre Lake Frome Lake Gardner Lake Torrens

Cooper Creek The Darling The Diamantina The Finke The Fitzroy The Flinders
The Gascoyne
The Georgina
The Murray
The Victoria

? MAJOR FEATURES

Great Barrier Reef Great Dividing Range Gibson Desert Great Sandy Desert Great Victoria Desert Simpson Desert Tanami Desert



Can you imagine a world without TV, walkmans, lego or skateboards? This chapter will help you find out what children did in 1890.

ney

any children of this era did not have much time for play as they were needed for chores. Children left school very early and often began work from the age of twelve. Richer families, however, had servants which meant the children from these families would have had plenty of spare time. Many also had expensive toys.



Hand loom linen weavers and village children in Ahoghill

SKILLS FILE

Finding information from photographs

Photography was invented in 1839. Since that time we have been able to use photos in our studies of the past. Good photos, like the one on this page, can supply us with quite a lot of information that was never written down:

ACTIVITIES

Look at the photo, and then discuss as a class or write answers to these questions.

- 1 What does the caption tell you?
- 2 What ages do you think the children are?
- 3 What types of clothing are not worn now?
- 4 How can you tell these children are from poorer families?
- **5** These children would spend much of their time helping their parents. What would be some of the advantages of helping their parents at their work?



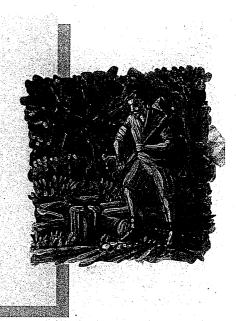
SKIESFILE

Reading wittings from the past

One of the ways we find out about the past is to read what people at that time wrote. Ask your teacher to read the extracts on this page to the class. Can you tell which extract was written by a child? What else do the extracts iell us?

EXTRACT 1

As a rule colonial children are forward and impertinent. The life is so rough that they grow up with very little respect for class and position. Also the mothers seem to spend no time in developing the feelings and characters of their children. No doubt this is partly owing to the never ending work, work, toil, toil, moil, moil of the country, a state of things that leaves no leisure for home culture, and all the surroundings of squalid houses, filthy backyards, rough streets, etc., etc., are neither calculated to refine nor soften them.

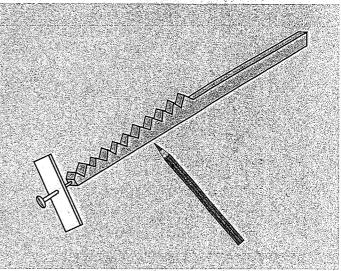


ACTIVITY

Make this children's toy. Children used to make it for themselves over a hundred years ago.

- 1 Find a stick about 260 mm long.
- 2 Cut notches halfway up the stick.
- 3 Cut a piece of card 50 mm x 10 mm wide
- 4. Push a pin through the card and into the stick.

To make it work run a pencil or a small stick up and down the notches. Try to find out why the toy works.



FACT FILE

Children's games

Many children's games have been played for hundreds of years. They have been taught by older children to younger children who have in turn passed them on.

When children came to New Zealand from Europe they brought their games with them.

EXTRACT 2

Our games in winter were: 'hare and hounds', 'tip cat', 'egg in the cap', 'high double duction', 'leap frog' and in the summer, swimming and cricket and hockey at any time we could find a jam tin and a few tea-tree cudgels. All played bare foot and players displayed the greatest agility in avoiding the tin on bare shins.

ACTIVITIES

- **1** Write down the games and activities of the past that are still played today. Which games have you never heard of before? How could you find out how they are played?
- 2 Invent a game or make a toy using the materials that were available in the 1890s.





Ahoghill 1890

Dear Jane

I have some amazing news. My Grandfather found your letters. I expected him to be very angry but when he read them tears came to his eyes. For the first time he realised he had three grandchildren whom he would never see.

Some days later he called me to his study and asked if I would travel to New Zealand and take with me a letter and a small parcel to give to your father. I will not be travelling out alone as one of our neighbours will be sailing to New Zealand in four months and will look after me. I shall be arriving some time in December.

Yours affectionately, Peter

At the wharf waits his cousin Jane and her father.

Dear Teter

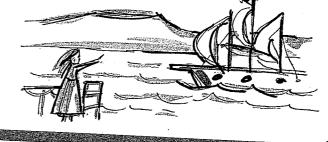
How marvellous to receive your letter with its wonderful news. I told my parents and they were stunned. My father even started to cry a little, knowing he was back inscontact with the family. We all pretended not to notice.

You will be expected to stay a while as my father and my big brothers are building an extra bedroom for you.

Fondest wishes Jane

The colonial adventures of Peter Kenny

Peter Kenny leaves Ireland for adventures in New Zealand and to take a mysterious parcel to his Uncle.



He greets his relations and the mysterious parcel is opened

ACTIVITY

Finish the comic with at least six more frames. Show Peter seeing things that are amiliar to him and things that are strange to him. Your comic could have an exciting anding.



MODULE SUBJECTS

Try these creative activities at home.

Materials needed for the following lessons: tempera paints, watercolors, brushes, markers, crayons, kitchen items, glue, scissors, paper, miscellaneous items.

- Make a splatter painting. Using watercolors and a toothbrush, splatter paint on white paper. Fill the
 toothbrush with paint, run your thumb along the bristles to spatter the paint. Cut into pieces. Assemble
 on black paper. Glue in place. This can be messy so make sure that you use washable paints and cover up
 with an apron.
- Create a nature collage. Spend some time outside collecting small nature items: sticks, petals, leaves, feathers, etc. Glue or stick on a paper. You can also place a piece of sticky contact paper in a frame, sticky side up. Then place items on the sticky side.
- Make a collage box. Use an old shoebox. Color the box with markers. Glue on some favorite things.
 Collect items that can be used in art projects: paper scraps, meat trays, packing stuff, pictures, etc.
- Paint thumbprint picture. Use watercolors. Prime the paints by placing a bead of water on each color.
 Stick your thumb in a watercolor pan. Make a thumbprint on the paper. When it is dry, add lines to make it a person, bug, or something imaginative.
- Print with kitchen items. Using tempera paint, pour some paint on a paper plate or cookie tray. Pick some kitchen items to print with: cookie cutters, corks, spaghetti, mallets etc.
- Make tracks. Using tempera paint, pour some paint on a paper plate. Take small trucks and cars and run
 them through the paint. Then make tracks on the paper. It's fun to fill a bucket with soapy water and have
 a car wash when done painting.
- Create Pan art. Place a piece of paper in a cookie pan. Paint the paper with water. Using a very wet brush, dip in a watercolor color. Dab the paint on the paper. What does it do? When the child has filled the paper with color, have him sprinkle salt on the paper and leave to dry. Once it's dry, brush off the salt and talk about what happened.
- Connect the dots. Using the end opposite the bristles on a paintbrush, dip in tempera paint and make dots around the paper. Then use paints or markers to draw lines to connect the dots. Add color in the spaces.
- Make A Timed line wonder. Turn on your kitchen timer to one minute. Using a marker, begin drawing but don't pick up your marker. Make one long continuous line going up, down, across and around. When the timer goes off, color in the spaces.
- Design Nature stamps. Collect some nature items that have a flat side (twigs, leaves, rocks, etc.). Paint the items with tempera paint and stamp them on paper.

Make natural paint with leftover fruits and veggies



Homemade fruit and vegetable paint is recycling at its finest.

When you just can't finish that bag of wilting spinach (hey, it happens to the best of us), DIY paint is a great way to make the most out of a droopy, potentially smelly, situation. Plus it'll buy you time between trips to the compost bin *and* save you a bundle on toddler craft supplies.

So rather than trying to pass smoothies off as dinner for days on end, whip up a <u>delicious family meal</u>, pop an organic mint, and turn those old food scraps into chemical-free vegan paint for the kids.

The other nice thing about vegetable paint is it's incredibly easy to make and it's versatile, too. The instructions below are for making a veggie-based dye, which you can use for things like clothing or Easter eggs. With just one or two additional ingredients you can also make craft paint or face paint. Start with some boiling water and an assortment of veggies for color variety, and you'll have the kids making all kinds of DIY crafts in no time.

VEGETABLE PAINT INGREDIENTS

Spinach, kale, swiss chard = green

Strawberry, beets, grenade, blueberry, raspberry = red

Blueberry, blackberry, red cabbage = blue / purple

Carrot, orange peels, yellow onion skins = orange

MAKING THE DYE

In a small saucepan, mix 2 cups of water with 1 cup of each fruit or veg. Bring to a boil over medium heat and leave to simmer for about one hour.

Turn off the heat and allow the water to cool to room temperature.

Strain the juice into glass containers.

MAKE VEGETABLE PAINT

Mix one teaspoon of dye with approximately six tablespoons of powdered sugar.

MAKE FACE PAINT

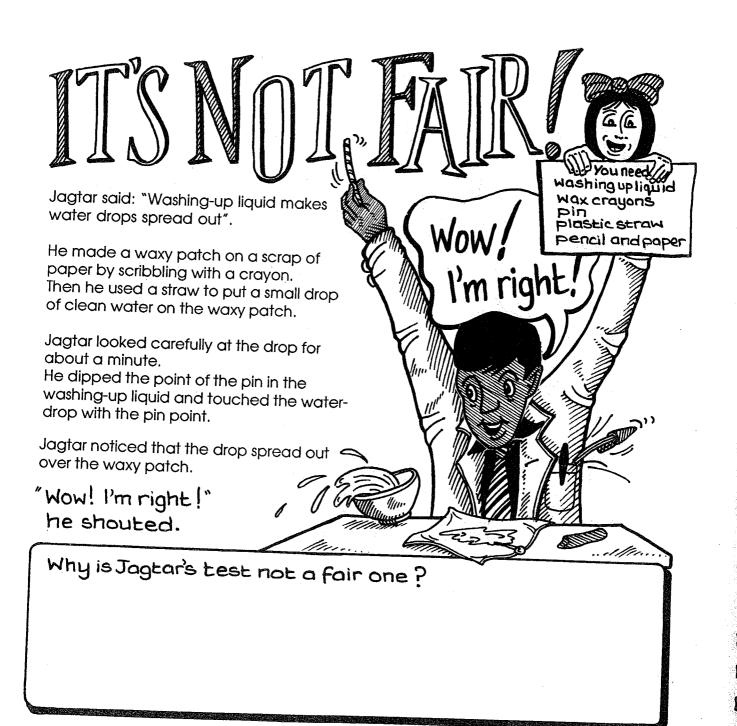
Combine equal parts corn starch and your favorite vegan face lotion. Add about ½ teaspoon vegetable oil to help smooth out the mixture.

Add a spoonful of vegetable dye to the lotion mixture. Repeat with all your dye colors in separate containers until you've got a complete set of face paints.

You may choose how you will show that you have done these tasks. Draw, speak, create, record- it is up to YOU as to how you will do these!

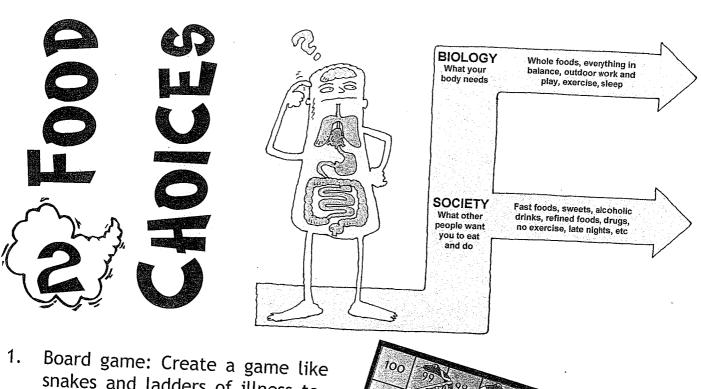
- Follow a recipe- cook or bake something
- Make a meal plan and grocery list on a budget
- Write a resume/CV
- Think about the part you play in looking after your house (mow the lawn, do the vacuuming, do the dishes etc).)
- Advocate for positive change in the world (write a letter, sign a petition, join an online group)
- Find out how to maintain a vehicle (how to check the oil, how to change a tire)
- Build physical literacy (do yoga, play catch, play Frisbee, kick a soccer ball, shoot hoops) in your bubble!
- Build Fine motor skills (draw, colour, knit, crochet, cross-stitch, sew, weave)
- Exist without the internet (unplug it for a period of time everyday)
- Spend time with your whanau! Talk to them ask them about their hopes and dreams.
- Research things you're interested in (a place you'd like to visit, a career you might like, a hobby you'd like to learn)
- Do a STEAM challenge (build a tower, boat, bridge) out of random materials around the house

SCIENCE

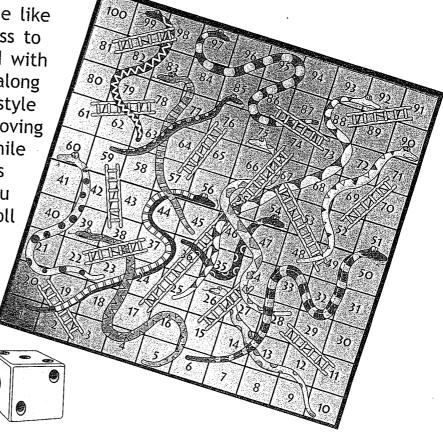


How would you make the test fair?

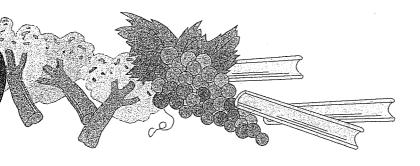
Now do Jagtar's test in a fair way and tell your partner what happens.

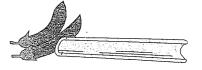


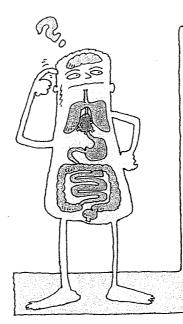
1. Board game: Create a game like snakes and ladders of illness to wellness. You will be faced with lifestyle and food choices along the way. Good food or lifestyle choices are rewarded by moving ahead on the "ladders", while behaviours and food choices that lead to illness send you back down the "snakes". Roll the dice to see what your future holds. Instead of using snakes and ladders think of creative alternatives.



2. Design a *Feed Me Right* trivial pursuit style game. Use categories of health, wellbeing, science, nutrition, and your body systems to create questions and answers.







BIOLOGY What your body needs Whole foods, everything in balance, outdoor work and play, exercise, sleep

SOCIETY
What other
people want
you to eat
and do

Fast foods, sweets, alcoholic drinks, refined foods, drugs, no exercise, late nights, etc

What do your friends think you should eat?

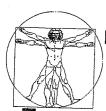
What does your mum or dad think you should eat?

What do TV commercials and magazine commercials think you should eat?

What do you want to eat?

You need to choose between what your body needs and what other people want you to eat.

Make positive decisions to be healthy for life. Set yourself health and wellbeing goals and time-frames in which to achieve these goals. Be strong and dump the junk!



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The Body Manual

Some people compare the human body to a machine. But machines cannot repair themselves. Your body is very complex and much more intricate than a car for example.

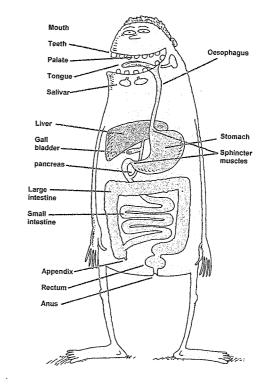
But cars and machines often come with manuals so they can be repaired or have parts replaced.

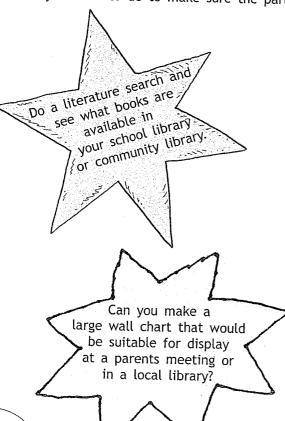
Unlike cars, you can't go out and buy a new body if yours breaks down.

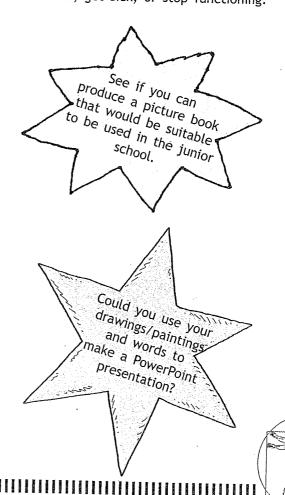
Your job is to work together as a class and make a "Body Manual". It will include all the parts of your body arranged in systems: the Skeletal System, the Muscular System, the Nervous System, the Endocrine System, the Cardiovascular System, the Immune System, the Respiratory System, the Digestive System, the Urinary System and the Reproductive System.

You will see this is a big job so divide the class into groups. You will need to make drawings or paintings of the important parts, tell what each one door, how the

the important parts, tell what each one does, how the parts keep your body running smoothly, and what you need to do to make sure the parts don't break down, get sick, or stop functioning.







Paper Boat Challenge

Challenge:

Your group must design and build a paper boat that will sail across your trough of water. You can propel your boat only by blowing on it. Your aim is to keep your boat afloat and get it to the other side with as few breaths as possible.

Be creative and good luck!

Equipment:

I piece of A4 paper

Glue

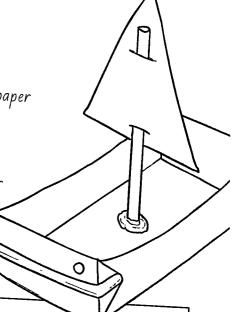
Scissors

A trough of water

Time:

Design Space

30 minutes



twinkl

Paper Basket Egg Challenge

Equipment:

I piece of A4 paper

Glue

Scissors

A dozen eggs

Time:

30 minutes

Challenge:

Within your group, your goal is to design and build a basket that will hold as many eggs as possible.

The winners will be the group whose basket holds the most eggs.

Rules:

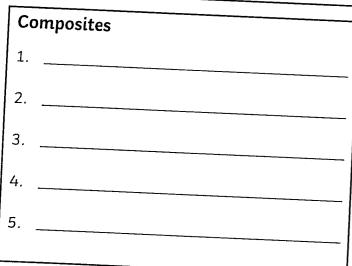
- The basket must have a handle, which it is held up by.
- The eggs must stay in the basket without it breaking for 15 seconds.

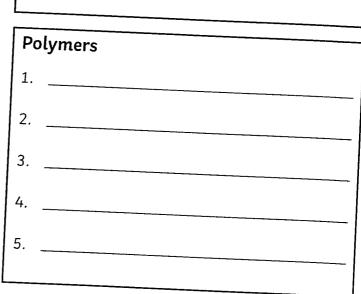
Good luck!

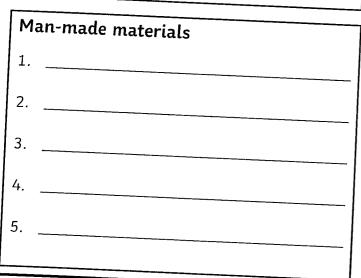
Design Space

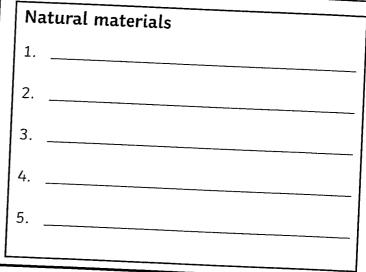


Name:	Class: Date given:	
	Date due in:	
√aterials Sca	venger Hunt	
arch around your home for	and the second s	
and your nome for	different types of materials, and write down 5 for e	ach type.
Metals	Non-metals	
	3	
	4.	
	4.	
	4.	
	5.	
omposites	4	
	4	







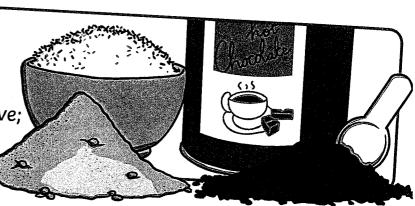




Dissolving

Which solids dissolve in water?

- Water (hot and cold)
- Transparent Containers
- Substances to try and dissolve; sand, sugar, salt, coffee etc



Method

- Add a teaspoon of whichever solid you are testing to a glass of cold water 1 and a glass of hot water, stir and observe the difference.
- Look to see if the solid dissolves in the hot water and cold water and if 2
- Can you design a chart to record your observation?

Things like salt, sugar and coffee dissolve in water. They are soluble. They usually dissolve faster and better in hot water. Pepper and sand are insoluble, they will not dissolve even in hot water.

For Older Children

Everything is made of particles which are always moving. When a soluble solid (solute) is mixed with the right liquid (solvent), it forms a solution. This process is called dissolving.

Two things that affect the speed at which the solid dissolves are temperature and the size of the grains of the solid. Caster sugar which is made of fine particles will dissolve quickly, but bigger sugar particles will take longer.

Solids dissolve faster in hot water as in hot water the water molecules are moving faster, so bump into the solid more often which increases the rate of reaction.



Lava Lamp

Water

Food Colouring

Vegetable Oil

 Effervescent Tablets

• A Clear Plastic Bottle or Jar



Method

- Fill the bottle or jar a quarter full with water.
- Top up, almost to the top with the vegetable oil
- They should separate into two layers, water at the bottom and oil sitting 3 on top.
- Add about 6-8 drops of food colouring once the oil and water separate. 4 5
- The colour will mix with the water at the bottom.
- Pop in half an effervescent tablets and watch the bubbles form. Add 6 more effervescent tablets bit by bit to keep the bubbles rising and falling.

Firstly water and oil will not mix – this is because we say that water is a polar molecule – its structure means that is has a positive charge one end and a negative charge the other. Water molecules stick together because the positive end of one water molecule is attracted to the negative end of another. Oil molecule structure is different – it is non polar, meaning that its charge is more evenly spread out, so the oil is not attracted to water – in fact we call it hydrophobic (water fearing) so it tries to get as far away from water as possible and will not mix. The reason that oil rests on top of the water rather than underneath is because it has a different density to water.

As the effervescent tablets is added (this is made of citric acid and sodium bicarbonate) it reacts with the water and form carbon dioxide gas and sodium citrate. It is the carbon dioxide bubbles that carry the



