GROW SMART

GROW SMART

Practice Edition 2012

A — ask for help

B — be kind

C — care

D — DO THE RIGHT THING

E — extend a helping hand

F — A BRIGHT FUTURE

G — Give a present

H — HOPE

I — ice-cream

J — jump for joy

K — KICK!

L — LOVE

M — MAKE THE RIGHT CHOICE

N — NICE THINGS

O — Open your heart

P — PEACE

Q — ASK QUESTIONS

R — rescue

S — smile

T — TOGETHER WE CAN MAKE A DIFFERENCE

U — uplift your friend

V — Visit someone in need

W — wishes can come true

X — xylophone

Y — YOU are special

Z — Use the zebra crossing
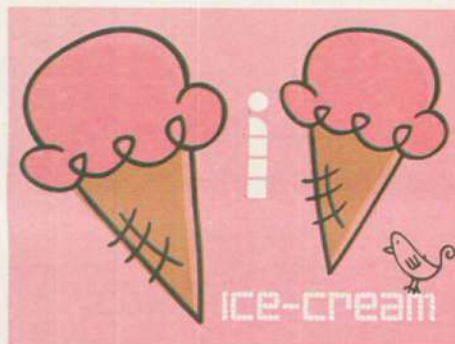
DEAR GROWSMARTER

Welcome to the Practice Edition of the Growsmart newspaper! Learn all about cool animals, awesome new words and find out if you're a born entertainer. You'll also get to join everyone's favourite mice, Vuyo, Gemma and the quadruplets, at the zoo!

Here at Growsmart we encourage entrepreneurship. Inside you'll find a few bright ideas for your very own business. But any successful business starts with a solid business plan… so we'll also guide you through setting up your own winning plan!

Maths and science are just as important as literacy and business, that's why you'll find some interesting maths problems to solve, plus a cool experiment with Professor Thandi!

Have fun learning new things and good luck with preparing for the Growsmart competition. Remember, if you work hard and give your best, you'll do well!

Until next time,
THE GROWSMART TEAM

achieve allow APPLE assembly
breathe BICYCLE cabbage catastrophe
CATERPILLAR chocolate CREATURE crocodile
COLOURFUL CONFUSING continent crochet CRUCIAL cucumber
CURVE curfew DAWN disappear discrimination difficult
DISSOLVE EDUCATION encyclopaedia enthusiastic experiment
favourite FOREST gaze gigantic glue guess GUARDING highway hippopotamus
HORIZONTAL interesting ISLAND jealous journey knitting KNIFE knowledge
LEGEND LETTUCE language literature liquid machine magnify MANDATORY
mathematics message mischief MUSICIAN naughty neighbour noise noticeable
obligated OCCASION occupy octopus OPPOSITE parents phobia pillow
POPULAR probably QUANTITY queue raincoat rectangle RESTAURANT
rooster rope salad SANDWICH science scissors SECRET silver SIMILAR
someone successfully spaghetti symbol tarantula teacher teacup television
TERRIFIC tired toaster toolbox trouble traitorous TURQUOISE
ultimate umbrella UNIVERSE UPSTAIRS upright value
venomous vicious visual volcano weekend WINDOW
whiskers wonderful wooden xylophone yawn
yoghurt zest

Vuyo and Gemma spend a day at the ZOO

"Have you ever seen a real elephant?" Vuyo asked the quadruplets. The little mice shook their tiny heads; they have never seen a real elephant, or a lion or even a crocodile!

Vuyo and Gemma decided that it was time to teach their children about other animals, so Vuyo called up the Jack Russell Taxi and asked him to take them to the zoo.

The little mice were very excited, but also a little scared. Elephants are very big and, as you know, baby mice are very, very small.

They finally arrived at the gates of the zoo. Vuyo brought along R100. Tickets for adults cost R7,80 each and tickets for children cost exactly half of that. How much will Vuyo have left after paying for their tickets?
Answer: _____

The quadruplets couldn't believe their eyes. They were surrounded by the strangest animals they had ever seen. The boys immediately ran to the monkeys. The monkeys loved the attention and did all kinds of funny tricks.

One of the zoo ladies was selling bananas next to the monkeys' cage. The quadruplets couldn't wait to feed their new friends, so they decided to buy some.

It costs 40c to buy half a banana and 70c for a whole one. If each of the quadruplets wants to give the monkeys one and a half bananas, what would be the cheapest way to buy the bananas? How much will it cost? How much money will Vuyo have left after buying the bananas?
Answer: _____

"You have to see this!" one of the quadruplets called from the other side of the walkway. He was standing next to a big grassy circle with a high fence around it. The other mice ran closer and peeked through the bars, but they couldn't see anything but grass. All of a sudden a mighty roar came from right under their noses. One of the girls got such a big fright that she almost fainted! On the other side of the fence stood a big lion with three cute lion cubs.

Normally cats eat mice, but luckily these lions were very friendly. The mouse family got onto the big lion's back and the zoo photographer took a photo of them. The photo cost R19,99. How much money will Vuyo have left after buying the photograph?
Answer: _____

Vuyo, Gemma and the quadruplets saw so many weird and wonderful animals on their trip to the zoo. The girls loved watching the elegant swans swim on the pond and the boys couldn't believe how many teeth crocodiles have! Everyone agreed that the most exciting part of the day was their visit to the elephants. The quadruplets all gasped when they saw the gigantic creatures. They had heard that elephants were big, but they could never imagine that they were THAT big!

The zookeeper helped Vuyo, Gemma and the quadruplets to climb up onto the biggest elephant's head. They went for a short elephant ride along a beautiful stream. The elephant was very friendly and allowed the mice to slide down her trunk at the end of the journey. They landed right in front of the souvenir shop. Vuyo decided to buy each of them an ice-cream. It cost R2 for an ice-cream, an extra 50c for a flake and R1 extra for chocolate dip. All the mice wanted dipped ice-creams with flakes. How much did Vuyo have to pay in total? How much money did he have left at the end of the day?
Answer: _____

The mice had a wonderful and adventurous day. As soon as they got home, Gemma framed the picture that they took with the lions and placed it above the fireplace. The quadruplets all jumped onto Vuyo's lap and made him promise that he would take them to visit their zoo friends again soon.
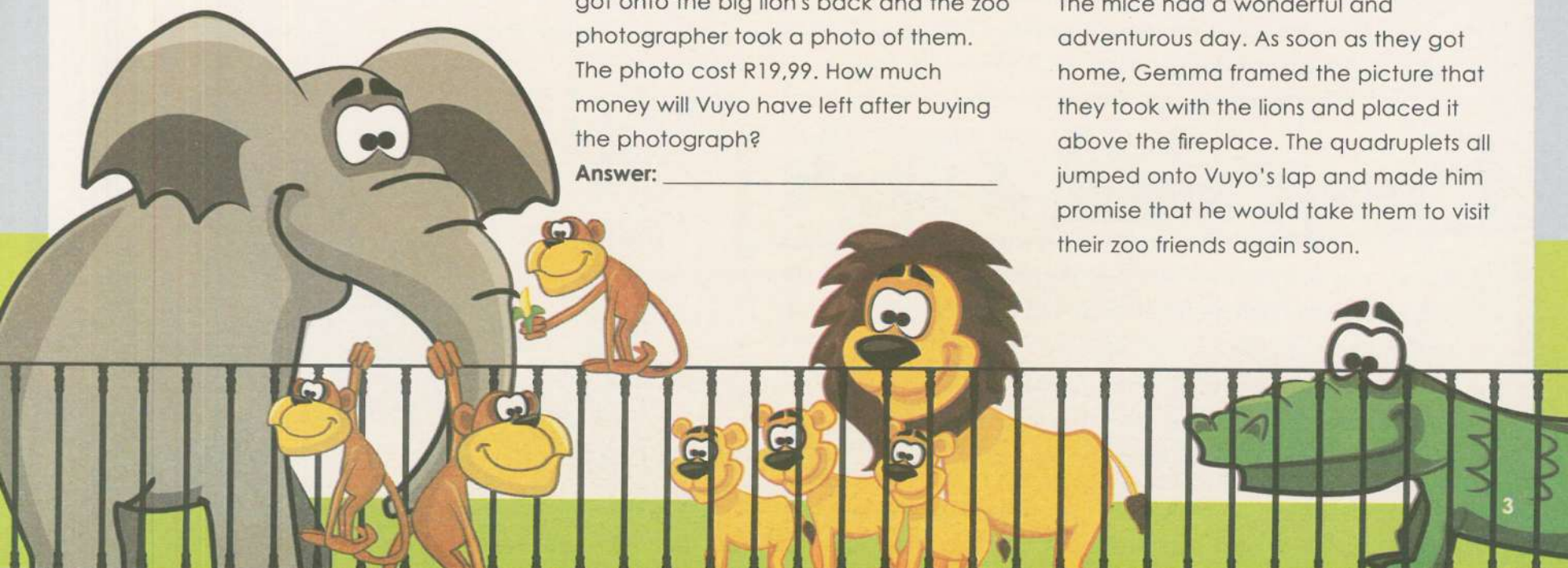
DANCER

WHAT DO DANCERS DO?

Dancers express ideas, stories, rhythm and sound through their bodies. I am a ballet dancer, but you get many different forms of dancing. Dancers often work in musicals and operas. Television shows, movies, music videos, and advertisements sometimes include dancing as well. Dancers often work as a group, but a few stars, like me, dance solo. Many dancers also teach or choreograph dances. Choreographers are people who create new dances or make changes to older dances.

WHAT'S COOL ABOUT YOUR JOB?

As dancers get better, they often get more jobs, bigger and better roles, and higher pay. Dancing taught me to be patient and disciplined and to stay fit and look after my body.

WHAT'S NOT SO COOL ABOUT YOUR JOB?

There are a lot of people who want to be professional dancers and choreographers, but there are not so many jobs. Only the most talented find regular work. Dancing is hard work. I normally spend eight hours a day (even during weekends and holidays) in class and rehearsal.

HOW DO YOU GET READY?

It's best to start dancing at a young age; I started when I was only six years old. Students who are good dancers by their early teens get more advanced training. Most dancers have their professional auditions by age 17 or 18. By then dancers usually focus on a specific style of dance.

UNDERSTANDING fraCtiOns

WHEN TWO FRACTIONS ARE EQUAL IN VALUE, THEY ARE CALLED "EQUIVALENT FRACTIONS".

VUZI

EXAMPLE: Sally ate 1/4 of the pie. Is it right to say that Sally ate 3/12 of the pie?

Yes, 1/4 = 3/12   No, 1/4>3/12   No, 1/4<3/12

CIRCLE THE CORRECT ANSWER:

1 Candice has read 3/4 of a book. It is the same as reading ___ of the book.

10/12   12/16   6/18   7/28

2 If a block is cut into 7 equal parts and 3 of them are painted, how many parts in the same proportion would be painted if the block was cut into 14 equal parts?

2   5   6   1

3 Sally has finished 3/5 of her painting. Vuyo says Sally has actually finished 12/20 of the painting. Is Vuyo wrong in saying that?

No, because 3/5=12/20.   Yes, because 3/5=12/20.
No, because 3/5 is ≠12/20.   None of the above.

4 A page is divided into 5 equal parts, 3 of them are shaded. Is it wrong to say that 7/10 of the page is shaded?

No, since 3/5=7/10.   Yes, since 3/5=6/10.
No, since 3/5>6/10.   Yes, since 3/5<6/10.

5 Sam says that he has eaten 1/3 of the apple. But Jade says that Sam has eaten 2/6 of the apple. Is Jade wrong in saying that?

Jade is right.   Jade is wrong.
I'm not sure.   Jade is confused.

WOW YOUR FRIENDS WITH THESE
Cool animal facts

Giraffes

* The giraffe is the tallest mammal in the world.
* A giraffe can survive longer without water than a camel.
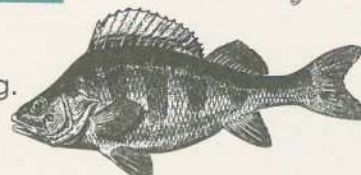* Giraffes have black tongues.
* A giraffe can clean its ears with its long tongue!

Cats

* A domestic cat sleeps for up to 14 hours a day.
* Cats can make over 100 vocal sounds, while dogs can only make ten.
* A cat uses its whiskers to determine if a space is too small to squeeze through. The whiskers act as antennae or feelers, helping the animal to judge the precise width of any passage.
* In the 1800s cats were used to deliver mail. In 1879 in Belgium, 37 cats were used to deliver mail to villages. However, they found that the cats were not disciplined enough to do this.
* In a lifetime, the average house cat spends approximately 10 950 hours purring.
* Cats see about six times better than humans at night.

Dogs

* If you were to remove the scent receptors from a dog's nose and lay them out flat, they would cover an area greater than the dog itself.
* A bloodhound is a large type of dog that has been used since the 1600s for tracking criminals.
* There is a doggy disco held in Italy every year where owners can dance with their dogs.
* The Basenji dog is the only dog that is not able to bark.
* Nose prints are used to identify dogs, much like humans use fingerprints.
* Dogs are colour blind.
* Dogs sweat only through their tongues.
* Dalmatian puppies do not have any spots on them when they are born. They only develop the spots as they grow older.

Sea creatures

* Octopuses have three hearts.
* Starfish have eight eyes — one at the end of each leg.
* A jellyfish is 95 percent water!
* Some fish have eyes that are the same size as their stomach.
* Dolphins sleep with one eye open.
* The blue whale, the largest animal in the world, weighs about 125 tons. This is as much as 23 elephants, 230 cows or 1 800 men.
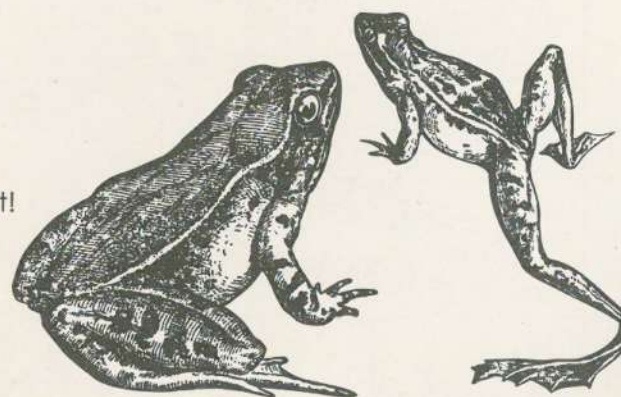
Elephants
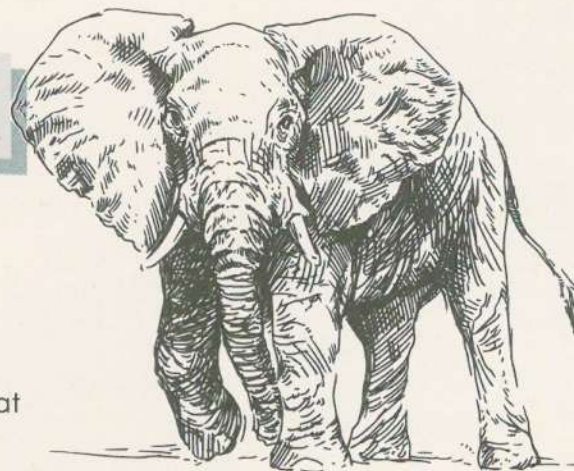
* The elephant is the national animal of Thailand.
* An elephant can live up to seventy years or longer.
* The elephant is the only mammal that can't jump.
* Mary, a circus elephant, was hanged for murder in Tennessee in 1916.

Frogs and toads

* Some frogs can pull their eyes into their throat to help push down food when they eat!
* When threatened, the horned toad shoots blood from its eyes.
* Unlike a frog, a toad cannot jump.
* Frogs do not need to drink water, as they absorb the water through their skin.
* Frogs belong to a group of animals called amphibians.
* Wood frogs can be frozen solid and then thawed, and continue living. They use the glucose in their body to protect their vital organs while they are in a frozen state.

LET'S TALK POCKET MONEY!

Just because you are young, doesn't mean that you can't start your own business. Use your hobbies to earn some extra pocket money.

Here are a few IDEAS:

1 Make beautiful greeting cards and sell them to your family and friends.

2 Collect old books from your neighbours, friends and family and sell them at a local market.

3 If you are good at singing or playing a musical instrument, you could start performing at special events like parties or weddings.

4 Gather all your friends and organise a play. You could sell the tickets to your parents, grandparents, neighbours and friends.

5 Offer a CD and DVD cleaning and sorting service. Grownups often have lots of CDs lying around that are dirty and packed in the wrong cases.
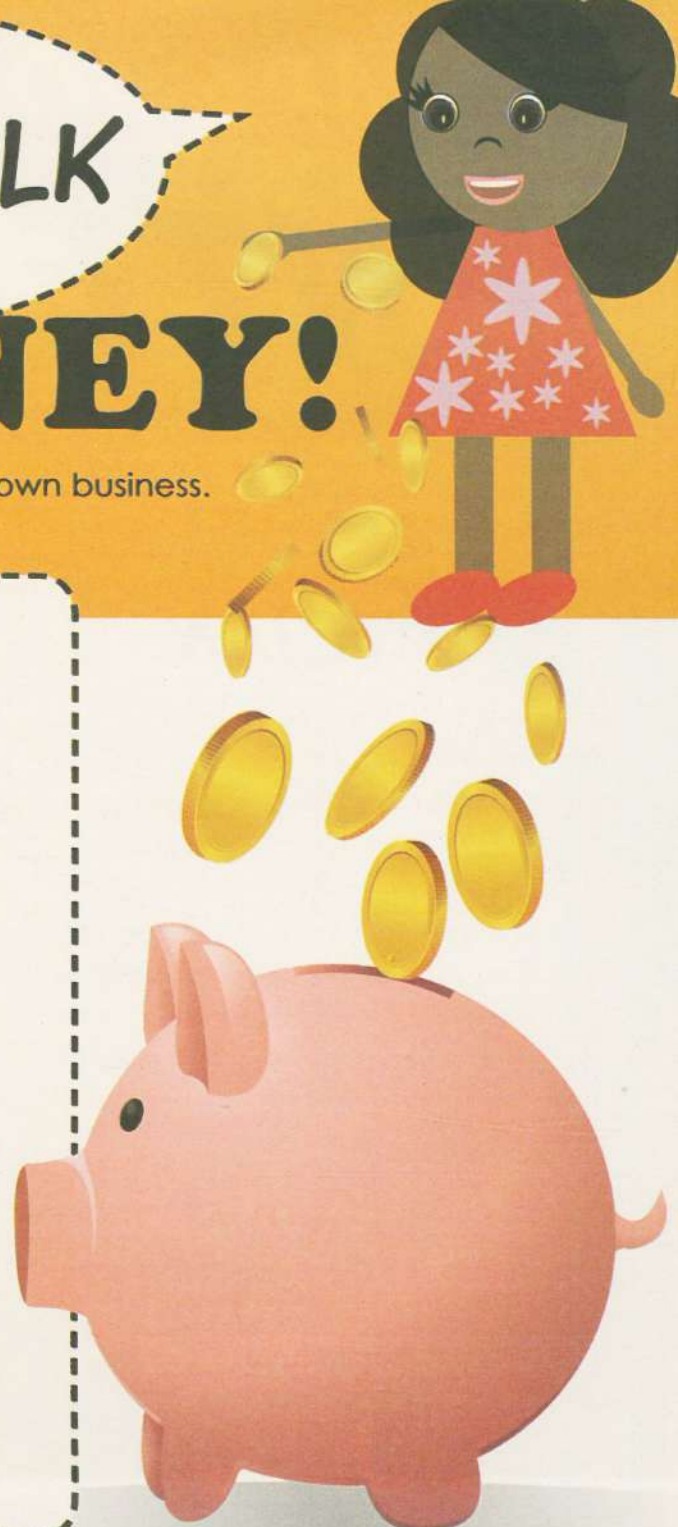
In order to start up a successful business, you have to come up with a BUSINESS PLAN first.

What is a business plan?
A business plan is a document that lists a business' targets, and gives details of how the business will achieve those targets.

Your business plan should include:
The objectives of your business.
A mission statement explaining what your business is trying to accomplish. Realistic goals.
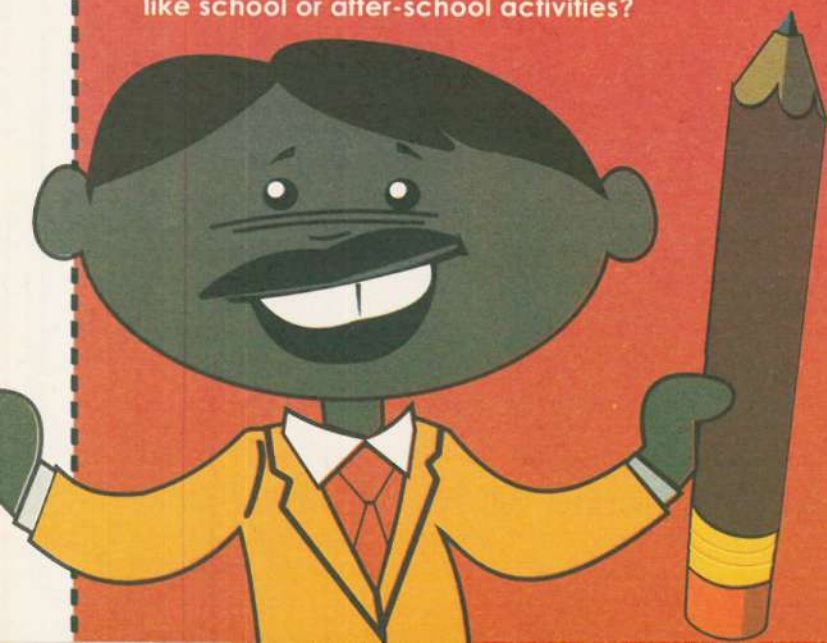
It should answer questions like:
How will you make money?
What will your costs be?
How much time will you need?
Will the business interfere with other aspects of your life, like school or after-school activities?

Your business plan should also include some market research.
Is there actually a need for the product that you want to sell or the service you want to offer?
How much will your potential customers be willing to spend?

Does your business have any competition?
What does the competition offer?
What sets your business apart from that of your competitors?

Do you have enough money to start the business?
If not, will you be able to borrow some money?
And, most importantly, will you have enough money left to pay off your debt and make a profit?

The more expensive it is to start the business, both in terms of money and time, the more important it is that you do thorough market research.

ARE YOU A BORN ENTERTAINER?

We spoke to some famous friends and asked them to help you choose a career in the entertainment industry:

MUSICIAN

WHAT DO MUSICIANS DO?

Musicians compose, sing, or play music. They might perform solo or as part of a group. They perform in sound studios and on stage. They may also perform on television, radio and in movies. Sometimes I even play at special events like birthday parties and weddings. Musicians can play many different types of music, like classical, jazz, pop and kwaito.

WHAT'S COOL ABOUT YOUR JOB?

I go on concert tours and travel all over South Africa and the world.

WHAT'S NOT SO COOL ABOUT YOUR JOB?

The competition is very strong. Talent alone is no guarantee of success. I spend a lot of time practicing and rehearsing and I often have to work at night and on weekends. To have a music career, you need a lot of motivation, talent and good luck.

Very few people earn enough money to support themselves as musicians or singers.

HOW DO YOU GET READY?

To become a musician, you need musical talent and a lot of patience. People who become musicians often learn to play an instrument at an early age. I started taking piano lessons when I was six years old. It helps any musician to learn to play more than one instrument, so I can also play the guitar and cello. Many songwriters now write music on computers, so technical skills are handy. Also, skills in choreography or dancing are sometimes useful. You guys are still young, but it's never too early to start. Take music lessons and join a school band or choir. You could also sing or play music with friends. It helps to take every chance to appear in front of people. You may be able to perform at parties or other events. Musicians and singers have to be comfortable performing on stage in front of an audience.

HEY! MY NAME IS PETER AND I AM A MUSICIAN.

ACTOR

WHAT'S UP? YOU CAN CALL ME SIHLE, I AM A FAMOUS ACTOR.

WHAT DO ACTORS DO?

Actors usually do work for television shows, advertisements, radio, films and theatre productions. Some actors also work on cruise lines or as teachers at schools that offer drama as a subject. Psychologists can even use play therapy to treat their patients. Actors sometimes work with directors, stage managers, set designers and playwrights.

WHAT'S COOL ABOUT YOUR JOB?

If you are really good, like me, you can become famous. It's also great to travel and see different places.

WHAT'S NOT SO COOL ABOUT YOUR JOB?

It's hard for most actors to find steady work. Only a few become famous stars. I have to work long and irregular hours and when I travel I have to leave my family behind.

HOW DO YOU GET READY?

Actors usually train at university, an acting school or a college. I went to university, but some people enter the field without any training. Training may include classes in speech and movement, directing, playwriting and design, as well as acting workshops. I often work with a drama coach. I have to research my roles so that I can understand the story's setting and background. Sometimes I even have to learn a foreign language or train with a coach to develop a certain accent to make my character realistic.

PROFESSOR THANDI'S FUN SCIENCE EXPERIMENT

How does sound travel?

Like light, sound travels through the air in waves, but unlike light, sound is not made of lots of tiny particles. When something makes a sound, say for instance you tap your feet on the ground, you shake the air molecules around your feet and make them vibrate (that means they shake quickly back and forth). This vibration in turn, shakes the air molecules a little further away from your feet, and they shake the air molecules next to them, and so on, until the air molecules inside your ear vibrate too.

When the air molecules inside your ear begin to shake, they move tiny hairs inside your ear that are connected to nerves under your skin. These nerves then send messages to your brain to tell you that you are hearing something. Because sound has to move molecules in order to travel, it's impossible for sound to move through space, where there is no air or tiny molecules. Space is a very quiet place! Sound doesn't only travel through air; it can also pass through water or solids. In fact, sound moves faster through water and solids than it does through air. In the olden days a cowboy would listen for a train by putting his ear to the steel train tracks, because sound travels much faster and further through solids than it does through air.

Even if sound moves pretty fast through solids, it still moves much slower than

light does. Light travels at approximately 300 000 km per second and sound only travels at 343,2 m per second. Some aeroplanes can even go faster than the speed of sound. Next time when there is a thunderstorm outside, count how many seconds it takes to hear the thunder after you've seen the lightning. A few seconds go past, because light travels faster than sound.

Experiment time!

This experiment will help you to see that sound moves by means of vibration.

You will need:
An empty bowl
Cling film
Sugar, salt or rice
A baking tray
A wooden spoon

Steps:
1. Cover the top of the bowl with cling film and stretch it until it's nice and tight.
2. Sprinkle a bit or rice, sugar or salt on top of the cling film.
3. Hold the baking tray over the centre of the bowl.
4. Take the wooden spoon and bang the tray hard.

EVEN THOUGH SOUND IS INVISIBLE, THIS EXPERIMENT HELPS YOU TO SEE THE WAY IT MAKES AIR VIBRATE. WHEN YOU BANG ON THE TRAY, YOU MAKE THE TINY PARTICLES IN THE AIR BESIDE IT VIBRATE AND THOSE PARTICLES MAKE THE PARTICLES NEXT TO THEM VIBRATE. THE VIBRATIONS TRAVEL TO THE BOWL, MAKING THE CLING FILM VIBRATE AND THE SUGAR, SALT OR RICE JUMP.
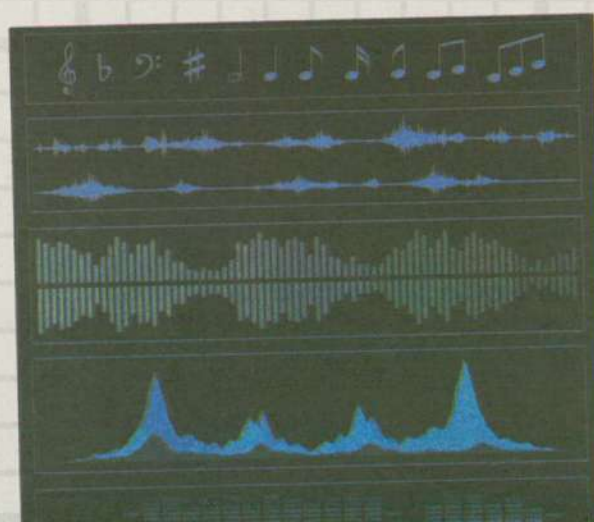
CAN YOU OUTSMART THESE BRAIN TEASERS?

1

Chesray bought a pen and a book. The pen cost 3 times as much as the book. She gave the shop assistant R50 and received R6 change.

How much were the book and the pen?

BOOK = _____

PEN = _____

2

Moegamat bought 244 eggs for R180. He discovered that 16 eggs were rotten and threw them away. He sold the rest at R7 for a box of 6 eggs.

How much money did he make?

_____

_____

3

Jaden and Kaylene have R330 together. Jaden has R60 more than Kaylene.

How much must Jaden take from Kaylene in order to have twice as much as Kaylene?

_____

_____

4

Vince's mass is 14 kg more than Michael's mass. Peter has the same mass as Michael.

If their total mass is 128 kg, what is the mass of each of them?

M = _____ kg

P = _____ kg

V = _____ kg