

GROW

SMART



An initiative by GROWTH-POINT
PROPERTIES

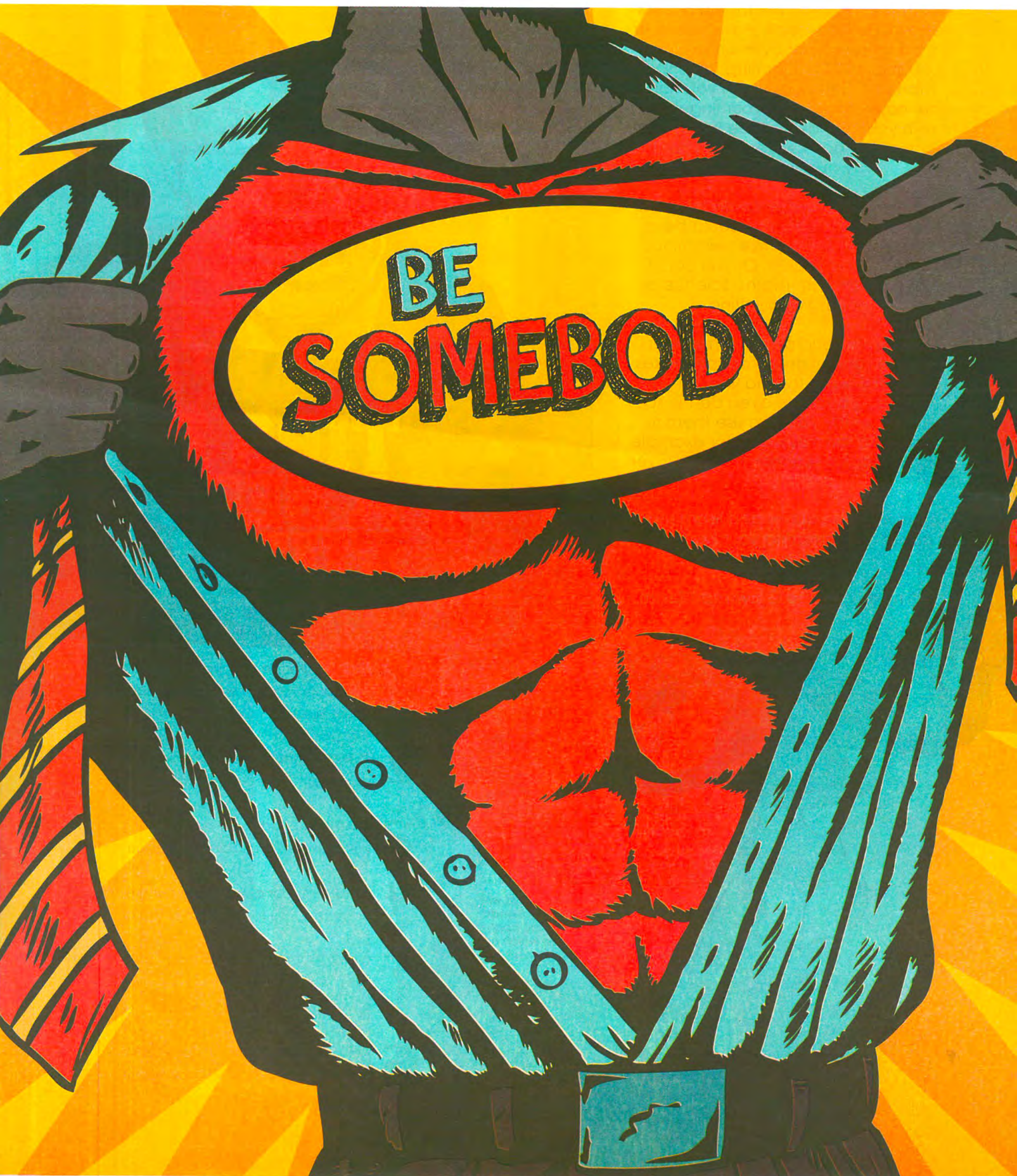
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Education

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DEAR GROWSMARTER

The human body is an amazing machine and the greatest tool you'll ever own. From your head down to your toes, your body has been perfectly made to help you think, work and play. But even with all the fantastic things your body can do, there are some things that it can't. For example, can you kiss the tip of your elbow? Bet you can't. Have you ever tried to keep your eyes open when you sneeze? Or humming for longer than three seconds when you hold your nose closed with your fingers? Try it with your friends and see if they can. If you can't, don't worry. That's just the way our bodies work.

The things you are naturally good at are called talents. You could have a talent for sports – like swimming, running and soccer. Or you could have a talent for maths, science or reading and writing.

Whatever your talents, remember you are special and practice makes perfect! Always try and work at your talents to become even better, so that one day you can use them to become a famous writer, for example – or perhaps a teacher, soccer player or athlete!

To grow even smarter and learn more about how amazing your body is – keep reading!

Until next time, The Growsmart Team.

CLASSROOM ACTIVITIES:

Discuss Madiba's tips with a group of your friends. Which ones are you applying in your life, and which ones do you need to work on?

LEARN FROM MADIBA



7 TIPS FOR A BETTER FUTURE

- 1 EDUCATION:** Do your best to get a good education, so that you can become a future leader.
- 2 RESPECT:** Good, wise leaders respect people, the law and the values of society.
- 3 READING:** Read every newspaper and book you can find, and gain knowledge faster.
- 4 CHILDREN:** Our children are our greatest treasure. Care for them; they are our future.
- 5 WORK HARD:** It is not what we are given, but what we do with what we are given, that make us great.
- 6 EXERCISE:** This is the key not only to a healthy body, but also a happy mind.
- 7 CARE:** Do this for yourself and for everybody else, because only good can come from it. And the world is always in need of good.

DO YOU KNOW THESE WORDS?

again
allow
alone
apple
awake
blood
brain
bread
clean
curve
digit
dozen
eight
empty
enjoy
enter
every
extra
family
fancy
fifth
first
fizzy
fresh
fussy
glass
guess
heart
house
juice
knife
large
learn
legal
lemon
marry
money
month
mouse
never
noise
order
party
plate
price
queue
rugby
salad
score
share
sheep
shiny
small
snack
south
speak
spend
start
stove
string
sugar
super
syrup
table
taste
teeth
thick
tired

today
tower
treat
value
visit
world
wound
wrong
absorb
amount
animal
answer
bottle
butter
career
change
cheese
chisel
clever
common
create
crispy
curfew
damage
decide
dinner
divide
doctor
easily
energy
engage
enough
family
farmer
forest
freeze
friend
fungus
garlic
genius
immune
inside
island
kettle
legend
liquid
listen
little
lowest
manage
market
method
nearly
occupy
oxygen
pastry
people
person
phobia
pillow
pocket
poster
potato
recipe
reward
ribbon
scheme
school

secret
silver
sister
soccer
spider
sticky
strong
symbol
system
teacup
thirty
thread
tissue
unique
vision
visual
waiter
window
wooden
worker
achieve
ancient
another
arrange
article
average
believe
between
bicycle
breathe
butcher
cabbage
cabinet
calcium
certain
complete
control
correct
crochet
crucial
dessert
destroy
diluted
discuss
edition
equally
evening
example
factory
fifteen
finally
flavour
formula
garnish
general
grocery
healthy
highest
highway
hundred
involve
jealous
journey
kitchen
lettuce
machine
magical
magnify

message
metres
million
minutes
muscles
naughty
nervous
octopus
operate
organic
parents
pattern
picture
plastic
popular
problem
process
produce
protect
quality
quartet
recycle
rooster
sausage
science
section
serious
similar
someone
special
spinach
subtract
success
teacher
thought
toaster
toolbox
trouble
vessels
vicious
volcano
weekend
welcome
western
yoghurt
allergic
assembly
birthday
business
chocolate
collagen
creative
creature
cucumber
customer
decadent
decision
delicacy
dissolve
distance
employee
exciting
expenses
function
gigantic
greatest
guarding
increase

industry
knitting
language
lemonade
lipstick
literacy
material
medicine
minerals
mischief
musician
occasion
opposite
original
positive
preserve
pressure
probably
properly
proteins
quantity
question
raincoat
received
remember
research
sandwich
scissors
solution
terrific
thousand
together
ultimate
umbrella
universe
upstairs
venomous
vitamins
whiskers
assistant
beautiful
celebrate
champagne
chemicals
colleague
colourful
confusing
container
continent
crocodile
delicious
detention
different
difficult
disappear
education
equipment
essential
expensive
favourite
important
influence
inspector
invention
knowledge
mandatory
newspaper
nutrition

obligated
passenger
professor
reception
rectangle
represent
satisfied
serviette
situation
spaghetti
supervise
tarantula
technique
traitorous
turquoise
wonderful
xylophone
affordable
antibiotic
artificial
attractive
completely
definitely
department
descending
experiment
frequently
horizontal
individual
initiative
literature
mayonnaise
noticeable
penicillin
pharmacist
photograph
restaurant
silhouette
television
thoroughly
vegetables
advertising
anniversary
catastrophe
caterpillar
competition
demonstrate
distinguish
imagination
ingredients
interesting
marshmallow
mathematics
preparation
quadruplets
refrigerate
responsible
constructive
enthusiastic
entrepreneur
professional
successfully
veterinarian
carbohydrates
knowledgeable
possibilities
disappointment
multiplication

THE AMAZING HUMAN BODY

NO SWEAT

Sweating (also called perspiration), is very important for controlling the body's temperature; when the sweat evaporates, it has a cooling effect on the skin. Sweat is a fluid consisting of mostly water, salt and minerals. Spread all over your skin are millions of tiny glands that produce sweat. An average person can sweat up to six litres a day. Your feet alone can sweat a cup a day. The saying 'sweating like a pig' has nothing to do with pigs, because pigs don't sweat.

HAVE A HEART

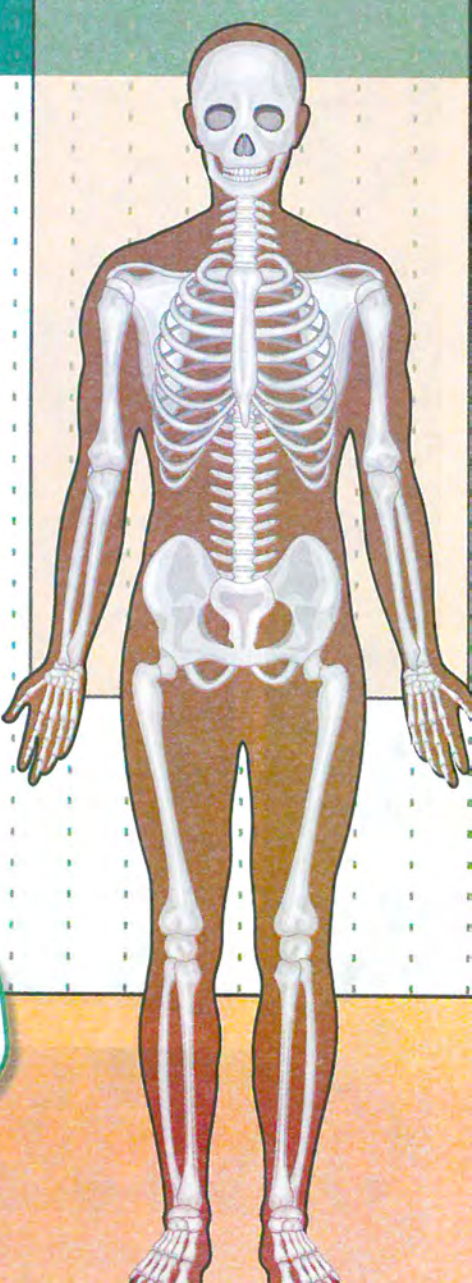
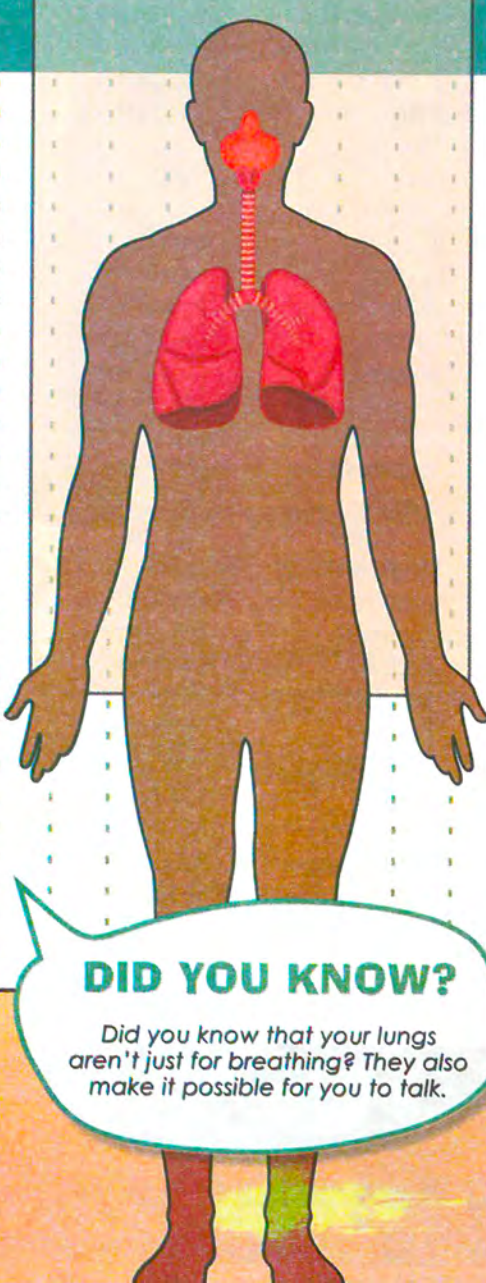
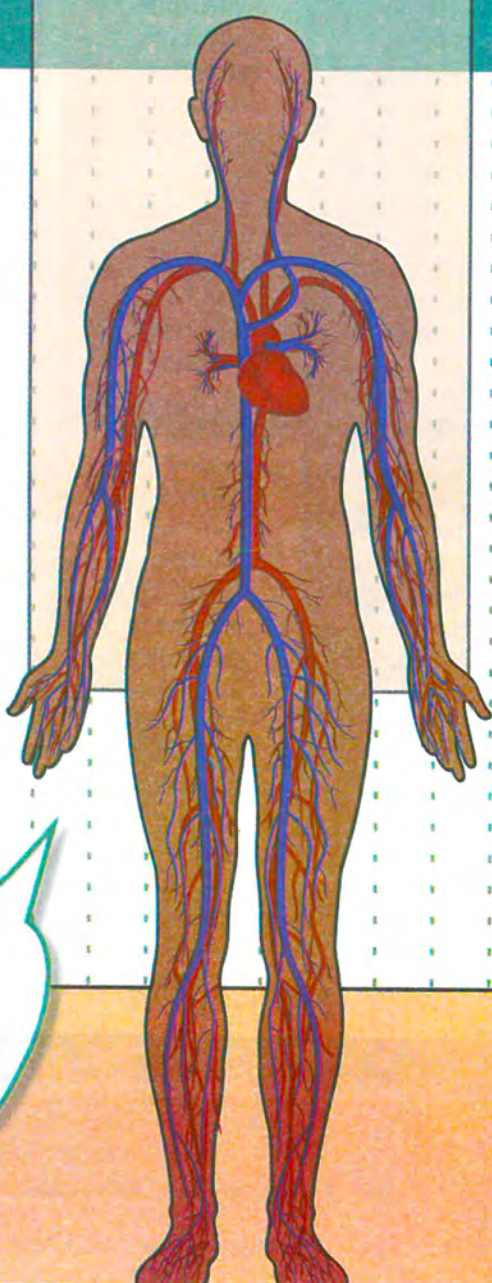
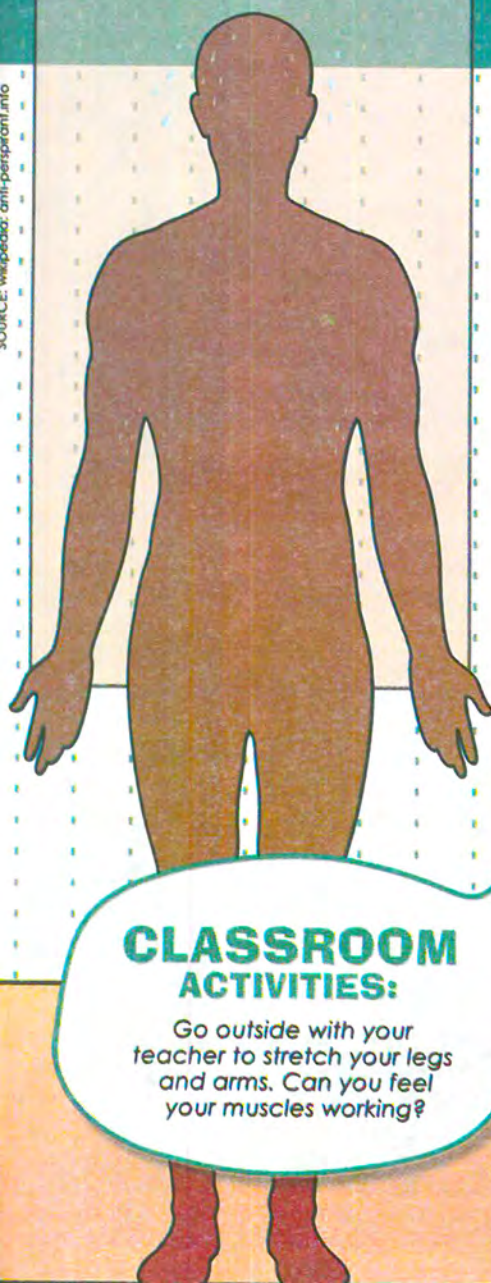
Your heart is one of the most important organs in your body; it's the engine that continuously pumps blood to all your organs. It beats automatically, even while you're sleeping. Blood is pumped away from your heart through arteries and returns to your heart through veins. When the human heart pumps, it creates enough pressure to squirt blood as far as nine metres. Yuck, but amazing! The study of the human heart is known as cardiology and a heart specialist is a cardiologist.

BREATH OF FRESH AIR

What's the one thing you do all day and all night, without even thinking about it? The answer is breathing, of course. Your lungs make it possible to breathe. You have two lungs in your chest, protected by your ribs. Your heart also needs to fit into your chest, so the lung on the left is actually a bit smaller than the one on the right. When you breathe in, you inhale. When you breathe out, you exhale. Oxygen from the air passes from your lungs into your blood when you breathe in and your heart pumps the blood through your body.

SKELETON CREW

Did you know that a baby has more than 270 bones and an adult has only 206? The reason is that some bones fuse together as the body grows. When two bones fuse together, it means they become one bone. The human skeleton has many functions. It supports the body and maintains the body's shape (otherwise you would just flop around like jelly). It protects the inner organs, like the heart and the lungs. The joints between your bones allow your muscles to move them. Blood is made in the marrow inside bones.



CLASSROOM ACTIVITIES:

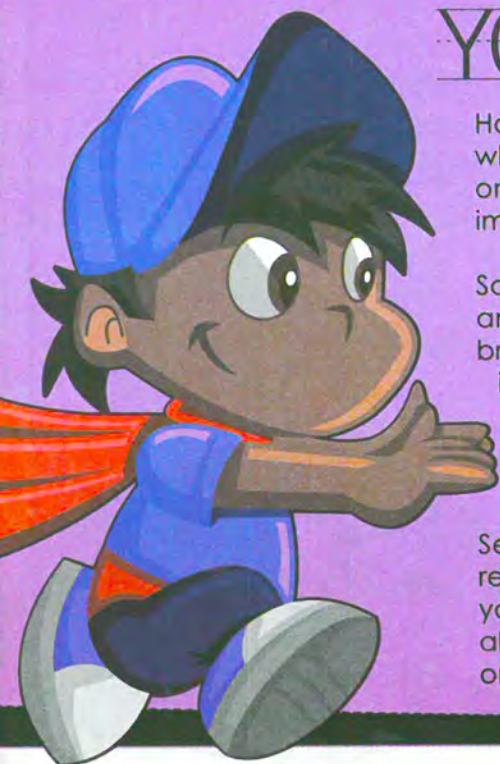
Go outside with your teacher to stretch your legs and arms. Can you feel your muscles working?

DID YOU KNOW?

Did you know that your lungs aren't just for breathing? They also make it possible for you to talk.

HEALTHY BODY

HEALTHY MIND



YOU ARE SPECIAL

Have you heard of self-esteem? Let's try to explain what it means and why it's important to every one of us. *Self* means you. *Esteem* means special, important or greatly admired and respected.

So, self-esteem is about how you feel about yourself and how much you value yourself. It's not about bragging or thinking you're perfect. Self-esteem is about knowing what you're good at and being proud of your achievements. It's about knowing that every part of you is worth caring for and protecting.

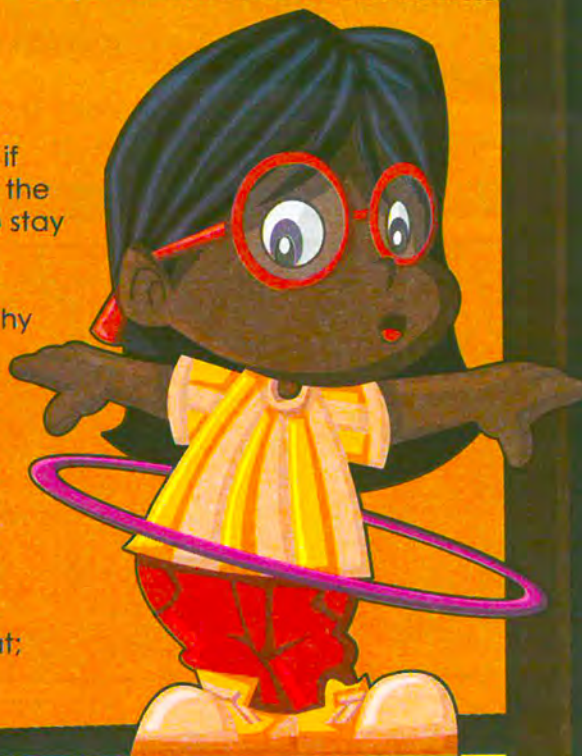
Self-esteem is important because when you respect yourself, other people usually respect you, too. And when you make mistakes (like we all do), self-esteem gives you the courage to carry on, and the confidence to succeed.

STAY HEALTHY

Food for your body is like petrol for a car. Will the car drive if you pour water into the petrol tank? Will it go if you pour sand into the petrol tank? I don't think so. In the same way, your body needs the right kinds of food to stay healthy and strong.

Some of the best tasting foods can be the least healthy and can cause health problems. These include foods and drinks containing lots of sugar, foods that are fried in oil, and fatty foods. It would be wise to eat these kinds of foods only once in a while.

The foods that are good for you and help your body stay healthy and strong, can be eaten often. They include vegetables, fruit, wholegrain breads and breakfast cereals, pasta and rice; low fat and fat-free milk, yoghurt, cheese; lean chicken and meat; fish; beans, peas and lentils.



KEEP FIT AND STRONG

Your body needs oxygen, so breathe lots of fresh air. Smoking is a very bad habit that can cause serious health problems, and it's uncool – don't even think about it. If you want your muscles and bones to stay fit and strong, you need to do regular exercise. Your muscles will become weaker if they are not used for a long time. So, give the TV a break, and get active! Your health is more important than a TV show.



SOLVE THE PROBLEM

$$18 + 6 - 12 =$$

Which number is larger:
0,25 or 0,025?

$$24 \div 12 =$$

What numbers are missing in the following sequence?

2 ; 5 ; 8 ; ; 14 ; ; 20

$$7 \times 7 \times 7 =$$

What numbers are missing in the following sequence?

85 ; 70 ; 55 ; ; ; 10

$$1\,000 \div 10 =$$

$$23 - 0 + 7 - 0 =$$

$$1\,000 \times 10 =$$

FOOD & THOUGHT

Here you'll find interesting information on what foods are good for your body, what it needs to stay healthy and how we measure the energy our bodies need and use.

THE BODY'S ENERGY

Your body needs energy to work properly and enable you to run, jump, play and concentrate in class. Food contains energy, and your body gets most of its energy from the food you eat.

Some foods contain lots of energy and others only a little. When your body gets more energy than it needs, it stores the energy as fat. So, how do we measure the amount of energy contained in food?

CALORIES

We use calories to measure the energy in food, just like we use kilograms to measure weight and litres to measure liquids. In fact, calories can be used to measure all kinds of energy. Food energy can also be measured in kilojoules.

SOYA MINCE

Soya mince usually contains about 80 calories for every 100 grams of mince. Compare that to minced lamb, which contains about 280 calories per 100 grams. Soya contains lots of protein and is ideal for vegetarians, because it's not meat. Soya products, such as soya milk, soya mince and tofu, are all produced from soya beans.

WATER

Water contains no calories, but it's essential for life. Make sure that you drink enough water – about 6 glasses a day.

MEALIE MEAL

This food is a source of carbohydrates, proteins and various other minerals. Carbohydrates give you energy. Plus, it contains fibre and has very little fat. Not that fat is all bad for you, as long as it's used sparingly, that you exercise enough and that the fat doesn't just come from animals. Add some fruit to this meal, and you have a nutritious breakfast at hand! 100 grams of mealie meal contains about 330 calories.

NUTRITIONAL FACTS

PROTEIN:

What your muscles need to grow big and strong.

CALCIUM:

Important for strong teeth and bones.

OMEGA-3 FATTY ACIDS:

Good for your brain.

VITAMIN C:

Helps your body to heal and fight colds.

FIBRE:

Keeps your tummy healthy. It can be found in fruit and vegetables for example.

PROTEINS



VITAMINS



CARBOHYDRATES



FATS



DID YOU KNOW?

Vegetable and fruit peels can be used to make compost. Compost is the food plants need to grow healthy and provide fruit and vegetables.

CLASSROOM ACTIVITIES:

Why not start a compost heap with your teacher and friends at school? Together you can make a garden and grow fresh fruit and vegetables.



SARDINES

One can of sardines in oil provides about 190 calories. It contains plenty of good protein, omega-3 fatty acids and calcium.

It is a very good source of general nutrition, provided some fruit and vegetables are added.



MATHS WORD PROBLEM

Ryan had 195 marbles. He gave 66 marbles to Peter, 23 marbles to Gary and 19 marbles to Kate. How many marbles does Ryan have left?

Answer: _____

Alfred had R15,25 in his money box. His mother gave him some money as a reward for a very good school report. He now has R32,00 in total. How much money did his mother give him?

Answer: _____

There are 200 schools participating in the Growsmart competition. Each school has a team of 3 learners. How many learners will participate in the competition in total?

Answer: _____

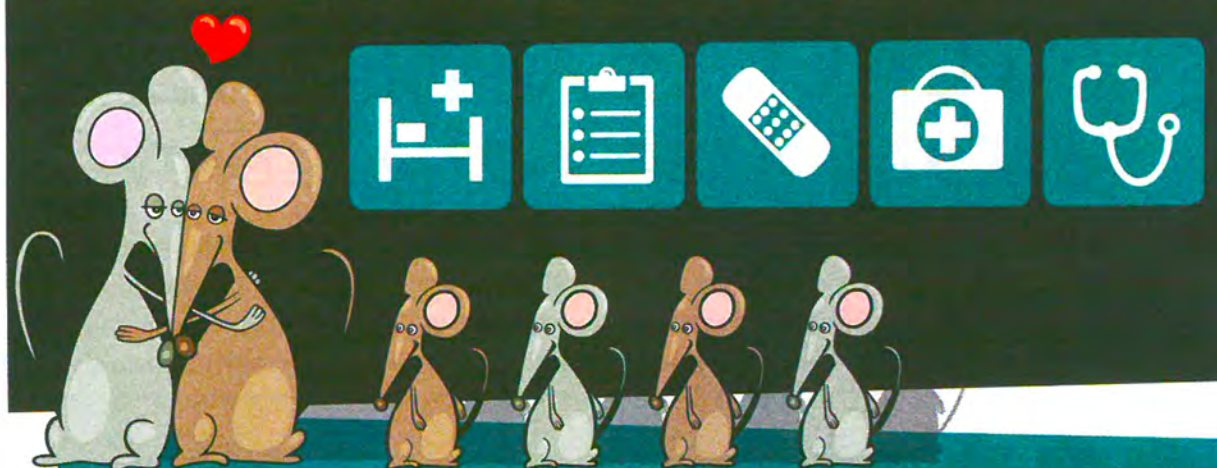
Bobby can blow up 6 balloons in 1 minute. How many balloons can he blow up in 1 hour?

Answer: _____

Lisa has to learn 66 new words for a spelling test. She learns 6 new words each day. How many days will it take Lisa to learn all 66 words?

Answer: _____

VUYO AND GEMMA TAKE THE QUADRUPLETS TO THE DOCTOR



Early last week Vuyo and Gemma heard some coughing coming from the little bedroom of their quadruplets. Vuyo and Gemma, after feeling the little mice's temperatures by putting the back of their hands against their foreheads, immediately rushed off to the doctor on the back of their trusty Jack Russel taxi.

If the Jack Russel taxi ran 20 kilometres per hour, and it took the mouse family 1,5 hours to get to the doctor, how far did they have to travel?

Answer: _____

After arriving, the mouse family sat in the waiting room. The quadruplets kept sneezing and coughing, complaining of aching heads and dry, itchy red eyes. Vuyo and Gemma were certain that the poor quadruplets had the flu, but then the doctor examined each of them and found they had nothing to fear. It wasn't the flu!

It turns out that they were suffering from a very mild seasonal condition known as 'hay fever'. It isn't very enjoyable for those who suffer from it, but it is completely harmless to your body. It only happens to some people (and little mice) that are sensitive to the pollen from grass, plants and trees that float in the air during spring and autumn. Pollen is the name given to the very tiny seeds from these plants. Hay fever happens when your body thinks that they are dangerous, and then it reacts by trying to push them out, by sneezing, for example. This is called a histamine reaction.

Seasonal means something that only happens during certain seasons; in this case, only during spring and sometimes autumn. Exactly the time when flowers blossom or when plants lose their flowers and leaves.

There are 4 seasons in a year. If the quadruplets have to visit the doctor for hay fever only during spring and autumn, how many times do they have to visit the doctor altogether in one year?

Answer: _____

Luckily, the doctor gave the quadruplets some medicine that tells their bodies not to react to the pollen by sneezing and coughing. This is known as anti-histamine medication. Now they can laugh and play without runny noses, and Vuyo and Gemma can sleep again.



PROFESSOR THANDI'S FUN

SCIENCE EXPERIMENT

ARE YOU A LEFTY OR A RIGHTY?

Have you noticed that some people are left-handed and some are right-handed? Some kick with the left foot and others kick with the right foot? That is because most people use one side of their body more than the other side. In other words, one side is dominant. Of course, a few people are ambidextrous, which means they can use both sides equally well. Do you use one side of your body more than the other? Do this test to find out!



YOU WILL NEED

- A pen or pencil and some paper to write on
- A hollow tube – you can roll up a sheet of paper to make a tube
- A cup of water
- A small ball – a tennis ball will do

INSTRUCTIONS

1. Draw a line down the middle of the paper, so that you have two columns. Name the one LEFT and the other RIGHT.
2. Test yourself with the questions along the side of the page. The answers will be either 'left' or 'right'. If an answer is left, make a tick in the LEFT column. If the answer is right, make a tick in the RIGHT column. At the end you'll be able to see whether you are left or right dominant.

RESULTS

Look at your columns and see where most of the ticks are. It will tell you which side of your body you use more than the other. Scientists know that the left side of your brain controls the right side of your body, and the right side of your brain controls the left side of your body. But they don't quite understand why as many as 90% of people are right-handed and only 10% are left-handed. Some famous left-handed people include Barack Obama, Jim Carrey, Tom Cruise, Mary-Kate and Ashley Olsen, Angelina Jolie, Brad Pitt, Keanu Reeves, Julia Roberts, Sylvester Stallone, Celine Dion, Eminem, Albert Einstein, Neil Armstrong and Prince William.



TEST YOURSELF

1. Wink an eye. Which eye did you use to wink?
2. Look through the tube. Which eye did you use?
3. Extend your arms in front of you. Bend your wrists so that the back of your hands are facing you. Now bring your hands together, still with the backs facing you, until you have a little triangle between your thumbs and forefingers. Look through the triangle at something in the room. Try looking with just one eye, then try the other eye. The picture will change with one of the eyes and stay the same with the other. Which eye did you use when the picture did not change?
4. Which hand do you use to write?
5. Have a drink from the cup of water. Which hand did you use?
6. Throw the ball. Which hand did you use?
7. Fetch the ball, drop it and kick it. Which foot did you use?
8. Run and then jump using one leg. Which leg did you use?