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Number 3 (2026)

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Published by Maskew Miller Learning (Pty) Ltd
Company Registration Number 2009/022455/07

E-PDF ISBN 9781834992426

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B-BBEE status: Level 1

THE WORLD HEALTH ORGANIZATION (WHO), THE AGENCY DEDICATED TO GLOBAL HEALTH AND SAFETY, CONSISTENTLY RANKS SUTH AFRICA AMONG THE TOP 20 MOST DANGEROUS COUNTRIES IN THE WORLD FOR ROAD USERS.

Down the ROAD

THE BASIC SAFETY TEST

HERE IS A BASIC ROAD SAFETY TEST TO SEE IF YOU ARE SAFE ON THE ROADS!
(Tick True or False.)

1 ***It's safe to text while walking across a street if there is no traffic.***
☐ True ☐ False

2 ***Using a zebra crossing gives you the right of way as a pedestrian.***
☐ True ☐ False

3 ***You only need to wear a helmet when riding a motorbike, not a bicycle.***
☐ True ☐ False

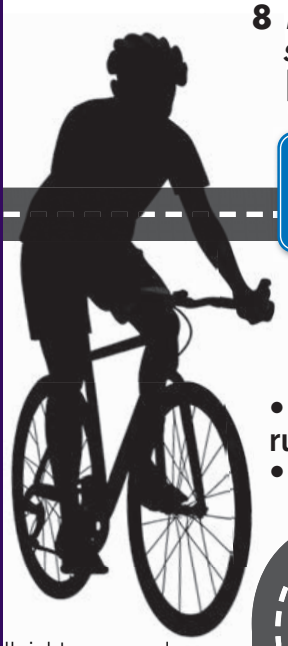
4 ***Jaywalking is when you cross the street in an unsafe or illegal way.***
☐ True ☐ False

5 ***If a traffic officer gives a signal that's different from the traffic lights, you must ignore them and follow the lights.***
☐ True ☐ False

6 ***Wearing headphones while crossing the road is totally safe.*** ☐ True ☐ False

7 ***If there's no pavement, it's best to walk on the side facing the traffic.*** ☐ True ☐ False

8 ***If you are halfway across the road and the pedestrian signal starts flashing, you should quickly turn and go back.***
☐ True ☐ False



HELMETS SAVE LIVES

On your BICYCLE

- Always wear a helmet
- Follow traffic rules
- Be visible with bright clothing
- Have reflectors at night

ANSWERS: 1F, 2T, 3F, 4T, 5F, 6F, 7T, 8F

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Texting and WALKING

SAFETY FIRST!

Texting while walking anywhere near traffic is dangerous! International statistics show that young adults, aged 16 to 25, are most likely to be injured as distracted texting pedestrians.

DANGERS OF TEXTING WHILE WALKING ON THE STREETS

You're not looking where you're going
When you're texting, your eyes are on your phone – not on the road, pavement or surroundings.

Reduced awareness of traffic
Texting distracts your brain. You may not notice an approaching car, a red light, or hear a car hooting.

Slower reaction time
Just like texting while driving, your reflexes are delayed when you are focused on your phone.

Walking into dangerous zones
You could accidentally step off the curb, or step into a pothole.

Increased risk at intersections
Intersections are tricky and looking at your phone reduces awareness of everyone else.

PAY ATTENTION

Rules for SKATEBOARDING

OBEY ALL TRAFFIC RULES
- Stop at red lights and yield at stop signs, just like pedestrians.

STAY ALERT
- Don't use headphones or your phone while skating.

WEAR YOUR GEAR
- Always wear a helmet! Use elbow pads, knee pads, and wrist guards, especially if you're a beginner.

DON'T SKATE IN THESE PLACES
- Business areas, malls, and public parking lots. Respect the 'no-skateboarding' signs.

NO NIGHT RIDING
(Unless you're lit up!)

• Pedestrians make up 45% of all road fatalities.

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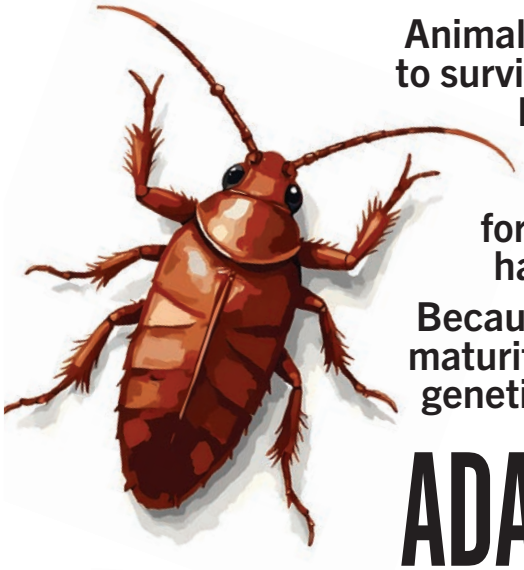


Animals need to adapt to their environment to survive changes such as shifting climates, habitat loss, new predators, or dwindling food sources. Adaptation is a slow process for most animals, and many species have not survived these changes.

Because large animals take years to reach maturity and produce fewer offspring, their genetic adaptation is a very slow process.

ADAPT OR DIE!

INSECTS ADAPT & SURVIVE! THIS IS THEIR RECIPE FOR SUCCESS.

RAPID REPRODUCTION

Most insects lay hundreds or thousands of eggs. They produce many generations in a single year. This allows a quick genetic adjustment.

DIVERSE DIETS

Insects can feed on plants, animals, decaying matter, or even wood. Some, like cockroaches, will eat anything!

FLIGHT

Wings allow insects to escape predators, migrate, and find food over large areas.

SENSORY ADAPTATIONS

Insects, unlike animals, have highly sensitive antennae, compound eyes, which make them sensitive to dangers.

RESISTANCE AND RESILIENCE

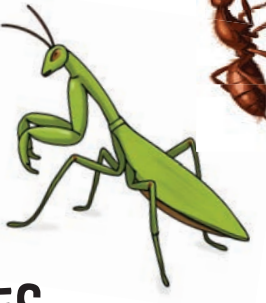
Many species quickly develop resistance to pesticides.

BODY STRUCTURE AND SIZE

Exoskeleton: Provides protection and prevents water loss.
Small size: Allows them to hide easily, use fewer resources and access tiny habitats.

CAMOUFLAGE AND MIMICRY

Many use camouflage to blend into their environment. Others mimic dangerous or unpalatable species to avoid predators.



ENDANGERED BEES

Certain specialist bees, which rely on one plant or habitat, often cannot adapt quickly and are more at risk.

Climate change may disrupt the timing between flowers blooming and bee activity, affecting food supply.

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My BIRTHDAY lock code

DO THE MATHS & UNLOCK YOUR PERSONALITY

You are creating a secret 1 digit lock code using numbers from your personal life.

FOLLOW THE CLUES AND LIST ALL THE POSSIBLE DIGIT COMBINATIONS THAT FIT THE RULES BELOW.

CLUES:

DIGIT 1: THE DATE OF YOUR BIRTH.
Multiply the number by 12.
Add the digits together till only one digit remains.

DIGIT 2: YOUR BIRTH MONTH.
Multiply the number by 7. Add 27.
Add the digits together till only one digit remains.

DIGIT 3: THE YEAR YOU WERE BORN.
Add the digits together till only one digit remains.

DIGIT 4: YOUR SHOE SIZE.
Subtract the number from 1021. Add 433.
Add the digits together till only one digit remains.

MY CODE: _ _ _ _ (ADD THE DIGITS TOGETHER TILL ONLY ONE DIGIT REMAINS.)

THIS IS YOUR PERSONAL NUMBER ☐ **But what does it say about YOU?**

1 THE LEADER: confident, decisive, outgoing, responsible, persuasive

2 THE PEACEMAKER: calm, patient, fair, friendly understanding

3 THE GO-GETTER: ambitious, determined, focused, hardworking, competitive

4 THE CREATIVE: imaginative, original, artistic expressive, quirky

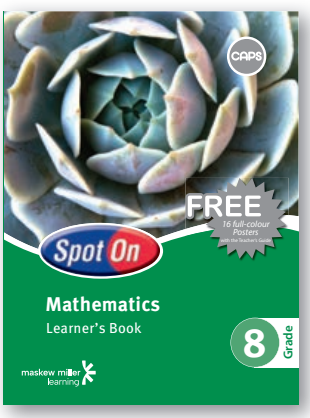
5 THE JOKER: funny, spontaneous, cheeky, energetic, entertaining

6 THE DEEP THINKER: curious, thoughtful, reflective, observant, intelligent

7 THE LOYAL FRIEND: trustworthy, kind, supportive, honest, caring

8 THE CREATIVE: imaginative, original, artistic expressive, quirky

9 THE QUIET OBSERVER: shy, reserved, thoughtful, sensitive, independent



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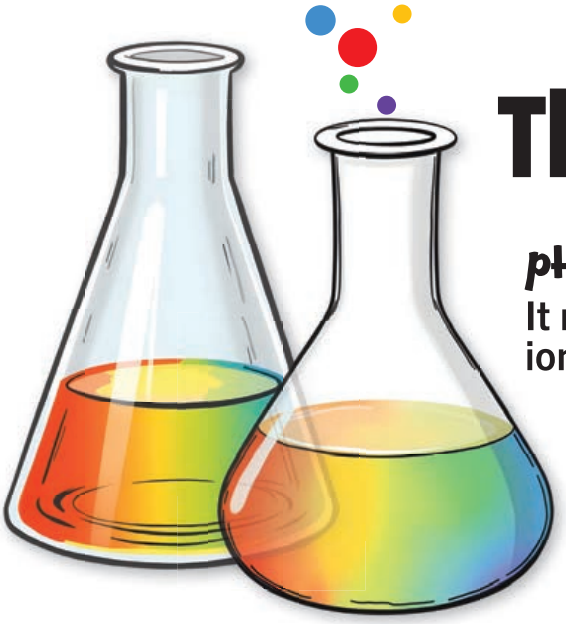


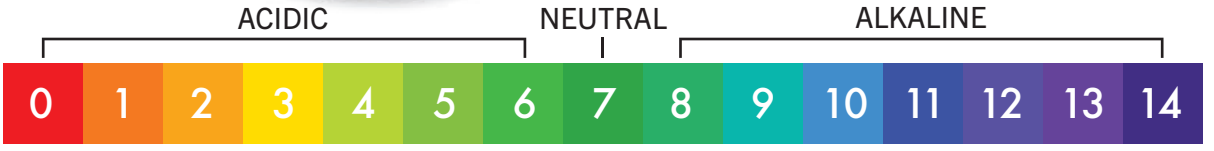
The pH FACTOR

pH stands for 'Potential of Hydrogen'

It measures the concentration of hydrogen ions (H+) in a solution.

Acids and Bases

We measure ACIDS and BASES on the strength of their pH number on the pH scale. The number ranges from 0–14.



An acid and a base are two types of substances with opposite chemical properties.

WHAT IS AN ACID?

- An acid is a substance that tastes sour (like lemon juice or vinegar).
- It releases hydrogen ions (H+) when dissolved in water.
- Acids have a pH less than 7.
- Common examples: lemon juice, vinegar, hydrochloric acid (in stomach acid).

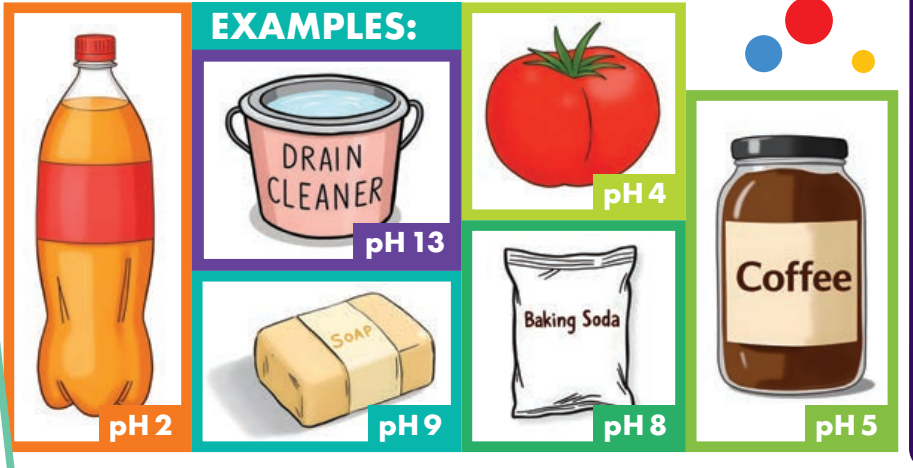
WHAT IS A BASE?

- A base is a substance that tastes bitter and feels slippery (like soap).
- It releases hydroxide ions (OH–) when dissolved in water.
- Bases have a pH greater than 7.
- Common examples: baking soda, soap, ammonia.

WHAT IS A NEUTRAL SUBSTANCE?

- It has no acidic or base properties
- It has a pH value of 7
- Common examples: water, salt solution in water

EXAMPLES:



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Why GEOMETRY?

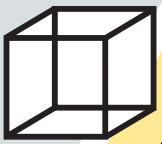
Are you thinking geometry is kind of senseless right now ...

THINK AGAIN!

Geometry plays an important role in your life!

BUILDINGS AND ARCHITECTURE

Every building, bridge, and home is made using geometric principles like parallel lines, symmetry, and 3D shapes.



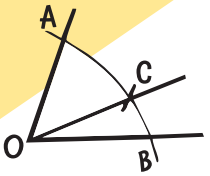
MOBILE PHONE AND APP DESIGN

The layout of icons, screens, and buttons depends on shapes, symmetry, and alignment. Geometry ensures screens are user-friendly and visually balanced.

VIDEO GAME DESIGN

Game characters, environments, and movement paths are all built using geometric shapes like polygons, lines, and angles.

Geometry helps with 3D modelling, collision detection, and creating realistic virtual worlds.



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SPORT

Rugby fields, rugby formations, court layouts and cricket pitches are all designed using geometric planning. In tennis, understanding angles helps with returning shots.

Fashion AND CLOTHING DESIGN

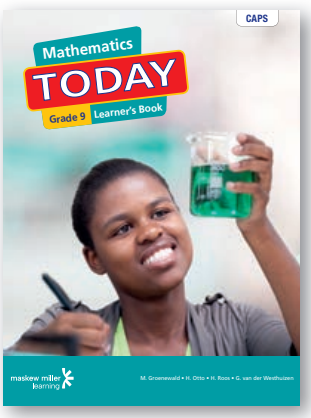
Geometry is used by designers to create patterns, to fit clothing to the human body. Symmetry and shapes are essential in making styles look good and functional.

TRAVEL AND NAVIGATION

GPS uses triangulation (based on geometry) to calculate your location. Maps involve shapes, coordinates, and scales to help you plan your route.

PROBLEM-SOLVING AND *CRITICAL THINKING*

Geometry teaches you to think logically and visually, which helps with analyzing situations, organizing tasks, or solving technical problems in your daily life.



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COUNTING THE BEAT

RANDS & RHYTHMS

You and three friends are going to see your favourite band live in Cape Town. So, let's connect the rands with the rhythm and work out the costs.

1 Tickets cost R750 each, but there's an online booking fee of R30 per ticket. If you buy all 4 tickets at once, there's an extra group discount of 5% on the ticket prices only (not on booking fees). ***How much will you pay in total for all 4 tickets?***

2 You decide to use a rideshare app. The cost is R14,50 per km for the first 15 km, and R11,20 per km after that. The stadium is 28 km from your house. ***What is the total return trip cost?***

3 The concert starts at 19:30. The ride there takes 40 minutes, but you want to arrive 1 hour before the concert starts to queue for good seats. ***What time must you leave home?***

4 If you split the total ticket cost from Question 1 and the transport cost from Question 2 equally between the 4 friends, ***how much does each person pay?***

5 You want to buy: • A T-shirt for R350 • A cap for R220 • A hoodie for R690. If you have R1 000 left after paying your share from Question 3, can you buy all three items? ***If not, what's the maximum number of items you can buy and still have at least R100 left for food?***

ANSWERS:

1 Ticket cost (before discount) = 4 × R750 = R3 000, Discount = 5% of R3 000 = 0.05 × R3 000 = R150, Discounted ticket cost = R3 000 – R150 = R2 850, Booking fees = 4 × R30 = R120, Total = R2 850 + R120 = R2 970
2 First 15 km = 15 × R14.50 = R217.50, Remaining distance (one way) = 28 – 15 = 13 km × R11.20 = R145.60
One-way total = R217.50 + R145.60 = R363.10, Return trip = 2 × R363.10 = R726.20
3 Concert start at 19:30 Arrive 1 hour earlier is 18:30 arrival time. Travel time is 40 mins. Leave at 17:50 (18:30 minus 40 min)
4 Total: R2 970 + R726.20 = R3 696.20, Per person: R3 696.20 ÷ 4 = R924.05
5 Merch total = R350 + R220 + R690 = R1 260, Money left = R1 000 (Not enough for all three.), R100 needed for food (R1 000 – R100 = R900 available for merch.), Possible combinations: • Hoodie + Cap = R690 + R220 = R910 (too much) • Hoodie + T-shirt = R690 + R350 = R1 040 (too much) • T-shirt + Cap = R350 + R220 = R570 (leaves R330 for food)
So max is 2 items (T-shirt and Cap)

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To HP or not HP?

WHAT IS HIRE PURCHASE?

Hire Purchase (HP) is a way of buying something expensive, like a phone, clothes or a car, by paying for it in small amounts over time, instead of paying the full price all at once.

How does it work?

You choose the item you want to buy. You pay a deposit up front. You then sign a document agreeing to pay regular instalments.

- YOU END UP PAYING MORE THAN THE ORIGINAL PRICE AND THE EXTRA AMOUNT IS THE INTEREST OR FEE FOR BORROWING.

1 MIKE WANTS A SMARTPHONE THAT COSTS R24 000.

On HP the shop asks for a deposit of R16 000 and 18 monthly payments of R600.
How much more does Mike end up paying for his phone?

A _____

2 MIKE WANTS TO BUY A LEATHER JACKET.

He pays a deposit of R3 600. He then pays R650 a month for 12 months.
If he lands up paying 15% MORE for his jacket – what was the original price?

B _____

3 MIKE NEEDS TO BUY A LAPTOP COSTING R15 000 ON HIRE PURCHASE:

Which is the better option?

A
- Deposit: R3 000
- Monthly payment: R1 000
- Period: 15 months

B
- Deposit: R1 500
- Monthly payment: R800
- Period: 24 months

C
- Deposit: R7 000
- Monthly payment: R 900
- Period: 12 months

C _____

ANSWERS: 1 R2 800.00 more, 2 R9 690.00, 3 A.

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WHAT ARE YOU SAYING?

WE USE INITIALISMS TO SAVE TIME. IT MAKES COMMUNICATION EASIER AND MORE EFFICIENT.

Often we use and pronounce these first letters or initials of the words – and we have no idea what they stand for.

COMMON INITIALISMS YOU SEE AND USE EVERY DAY.

TECHNOLOGY & COMMUNICATION

USB – Universal Serial Bus
URL – Uniform Resource Locator
SMS – Short Message Service
PDF – Portable Document Format
HTML – HyperText Markup Language
CPU – Central Processing Unit
AI – Artificial Intelligence
GPS – Global Positioning System

ATM – Automated Teller Machine

GLOBAL ORGANISATIONS

UN – United Nations
WHO – World Health Organization
EU – European Union
NGO – Non-governmental organisation

FBI – Federal Bureau of Investigation

HEALTH & SOCIAL SERVICES

HIV – Human Immunodeficiency Virus
MRI – Magnetic Resonance Imaging
DOH – Department of Health
DNA – Deoxyribonucleic Acid
RNA – Ribonucleic Acid

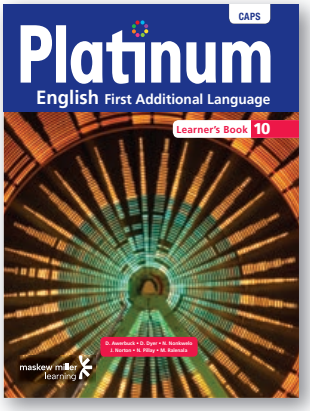
EDUCATION

NSC – National Senior Certificate
UCT – University of Cape Town
NSFAS – National Student Financial Aid Scheme

DIY Do it yourself

GOVERNMENT & POLITICS

ANC – African National Congress
DA – Democratic Alliance
EFF – Economic Freedom Fighters
SAPS – South African Police Service
SANDF – South African National Defence Force
BEE – Black Economic Empowerment



MEDIA & COMMUNICATION

SABC – South African Broadcasting Corporation
DSTV – Digital Satelite Television
MTN – Mobile Telephone Network

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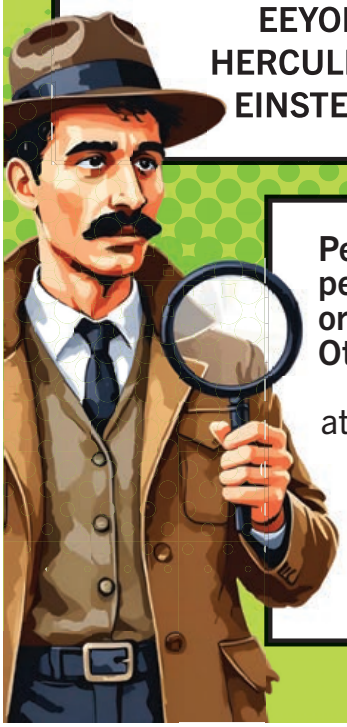
CHARACTERS & *nicknames*

In many instances nicknames are based on characters from stories, cartoons, myths, or history. These characters often represent types of people with certain qualities and become the basis of a nickname.

If you know these characters, you can recognise personality traits in real people and use them in your creative writing.

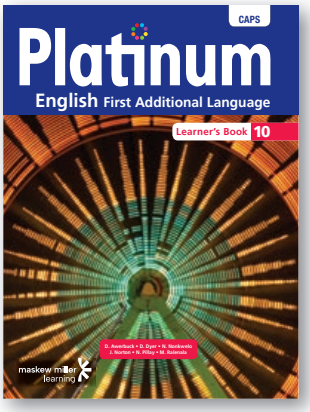
MATCH THE TRAITS TO THE NAME

ROBIN HOOD	someone who gets treated unfairly but works hard
SCROOGE	someone who stands up for the underdog or shares with others
SHERLOCK	a super curious or clever person who notices everything
PETER PAN	someone who is always exploring or asking questions
GRINCH	someone who is the perfect good looking partner
PINOCCHIO	someone who is stingy or hates spending money
PRINCE CHARMING	someone picky, wanting everything 'just right'
GOLDILOCKS	someone who never wants to grow up
CINDERELLA	a person who tells lies and can't be trusted
MIDAS	a grumpy person who spoils fun
DORA	someone very strong
EEYORE	someone who makes money easily
HERCULES	a super smart person or a 'know-it-all'
EINSTEIN	a gloomy, negative person



People are sometimes called names based on their personality or tendencies. Some of these names originate from old tales or well-known classic books. Others are more modern terms.

Example: An ***ugly duckling*** is a person who does not, at first, seem likely to succeed but who later succeeds. ***Yuppie*** is a word formed from the first letters of the words Young Urban Professional. This modern term which refers to a person who lives in a city and earns a lot of money that he or she spends on expensive and fashionable things.



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THE PERIODIC TABLE

THERE ARE 118 ELEMENTS.

An element is a substance that cannot be broken down into simpler substances using chemical methods. Every element is made up of its own type of atom.

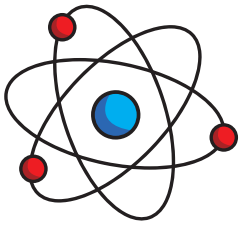
The elements are arranged in rows and columns. The horizontal rows (which go from left to right) are called ***periods*** and the vertical columns (from top to bottom) are called ***groups***.

Chlorine comes from the Greek word 'khloros' which means yellow/green, the colour of chlorine gas.

THE SYMBOLS OF THE ELEMENTS DON'T ALWAYS MATCH THEIR NAMES BECAUSE A LOT OF THEM COME FROM LATIN AND GREEK WORDS.

Thorium (Th) is named after Thor, the Norse god of thunder (and the Marvel super-hero)!

1 H Hydrogen										
3 Li Lithium	4 Be Beryllium									
11 Na Sodium	12 Mg Magnesium									
19 K Potassium	20 Ca Calcium	21 Sc Scandium	22 Ti Titanium	23 V Vanadium	24 Cr Chromium	25 Mn Manganese	26 Fe Iron	27 Co Cobalt	28 Ni Nickel	
37 Rb Rubidium	38 Sr Strontium	39 Y Yttrium	40 Zr Zirconium	41 Nb Niobium	42 Mo Molybdenum	43 Tc Technetium	44 Ru Ruthenium	45 Rh Rhodium	46 Pd Palladium	
55 Cs Caesium	56 Ba Barium	57 La Lanthanum	72 Hf Hafnium	73 Ta Tantalum	74 W Tungsten	75 Re Rhenium	76 Os Osmium	77 Ir Iridium	78 Pt Platinum	
87 Fr Francium	88 Ra Radium	89 Ac Actinium	104 Rf Rutherfordium	105 Db Dubnium	106 Sg Seaborgium	107 Bh Bohrium	108 Hs Hassium	109 Mt Meitnerium	110 Ds Darmstadtium	
			58 Ce Cerium	59 Pr Praseodymium	60 Nd Neodymium	61 Pm Promethium	62 Sm Samarium	63 Eu Europium		
			90 Th Thorium	91 Pa Protactinium	92 U Uranium	93 Np Neptunium	94 Pu Plutonium	95 Am Americium		



Helium is named after the Greek word for Sun: Helios.

The final element on the Periodic Table, oganesson, was only officially named in 2016.

Uranium and Neptunium are named after the planets Uranus and Neptune.

NOBLE GASES are chemically stable. They are called 'inert' because they do not react with other elements. They are Helium, Neon, Argon, Krypton, Xenon and Radon – and are colourless, odourless and tasteless.

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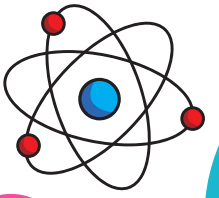
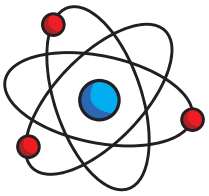
OF ELEMENTS



The Periodic Table is a chart invented by a Russian chemist in the 1860s that arranges all of the elements, based on their properties. Dmitri Mendeleyev left blank spaces for elements that hadn't been discovered yet — and he was right!

ELEMENTS ARE THE MATERIALS THAT MAKE UP ALL THE MATTER IN THE UNIVERSE.

The smallest possible piece of an element is called an atom.



																2 He Helium	
				5 B Boron	6 C Carbon	7 N Nitrogen	8 O Oxygen	9 F Fluorine	10 Ne Neon								
				13 Al Aluminium	14 Si Silicon	15 P Phosphorus	16 S Sulfur	17 Cl Chlorine	18 Ar Argon								
	29 Cu Copper	30 Zn Zinc		31 Ga Gallium	32 Ge Germanium	33 As Arsenic	34 Se Selenium	35 Br Bromine	36 Kr Krypton								
	47 Ag Silver	48 Cd Cadmium		49 In Indium	50 Sn Tin	51 Sb Antimony	52 Te Tellurium	53 I Iodine	54 Xe Xenon								
	79 Au Gold	80 Hg Mercury		81 Tl Thallium	82 Pb Lead	83 Bi Bismuth	84 Po Polonium	85 At Astatine	86 Rn Radon								
	111 Rg Roentgenium	112 Cn Copernicium		113 Nh Nihonium	114 Fl Flerovium	115 Mc Moscovium	116 Lv Livermorium	117 Ts Tennessine	118 Og Oganesson								
	64 Gd Gadolinium	65 Tb Terbium		66 Dy Dysprosium	67 Ho Holmium	68 Er Erbium	69 Tm Thulium	70 Yb Ytterbium	71 Lu Lutetium								
	96 Cm Curium	97 Bk Berkelium		98 Cf Californium	99 Es Einsteinium	100 Fm Fermium	101 Md Mendelevium	102 No Nobelium	103 Lr Lawrencium								

Hydrogen is the most abundant element in the Universe. It is the lightest with just one proton and one electron. It makes up about 75% of the normal matter in the universe.

Gallium comes from the name that was used for the region of France hundreds of years ago: Gaul.

Helium makes your voice funny but it has such a small mass that Earth's gravity can't hold onto it forever. Over time, it floats into space

Plutonium is radioactive and can heat up on its own. It produces so much heat that NASA uses it to power computers and other instruments on space probes sent to explore the solar system.

The Latin word for gold is aurum, which is why gold has the symbol Au on the chart.

The oxygen you breathe is colourless, but when cooled to -183°C, it becomes a light blue liquid!

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WHO GROWS WHAT?

Do this quiz to see if you know where crops are grown internationally. Tick True or False.

1 Thailand is one of the world's biggest exporters of rice. T F

2 **Most of the world's cocoa beans (for chocolate) come from West African countries like Ghana.** T F

3 **Potatoes were first grown in the Andes in Peru.** T F

4 Brazil is the largest producer of coffee in the world today. T F

5 **Tea was first discovered in China.** T F

6 **Spain produces more olives than any other country in the world.** T F

7 France is one of the leading producers of grapes for wine. T F

8 **South Africa is one of the world's top producers of maize (corn).** T F

9 **Egypt grows rice mainly along the Nile River.** T F

10 South Africa exports avocados and citrus fruits to Europe. T F

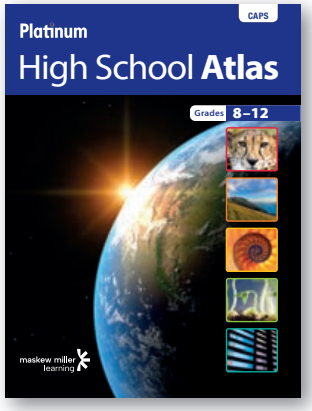
11 **The United States grows the most soybeans in the world.** T F

12 Malawi is famous for tobacco and tea farming. T F

13 **Madagascar is the top producer of vanilla.** T F

14 South Africa produces macadamia nuts and is one of the top exporters in the world. T F

15 Kenya is world-famous for its tea plantations. T F



Answers: All of the questions are TRUE

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STOP Shop?

MOST CLOTHING EVENTUALLY LANDS IN A LANDFILL WHERE THEY TAKE **HUNDREDS** OF YEARS TO BIODEGRADE.

Brands sometimes burn unsold clothes = pure pollution.

Washing clothes allows tiny plastic fibres to leak into the oceans.

FASHION IS THE 2ND BIGGEST GLOBAL POLLUTER AFTER OIL.

Globally, consumers purchase **80–100** billion new garments each year.

MICROPLASTICS IN THE SEA POLLUTE THE FISH THAT WE CONSUME.

One cotton t-shirt = 2,700 litres of water (what 1 person drinks in 2.5 years!).

Fashion = **10%** of global carbon emissions.

As modern consumers, we buy 60% more clothes than **20** years ago, but wear them for half as long.

60% of clothes are plastic based (polyester & nylon).

Fashion bags and packaging adds to the problem.

Clothes travel the world before reaching the stores. Global emissions.

Polyester takes about **200** years to break down.

HOW YOU CAN HELP

- Wear what you have!
- Shop 'pre-loved' items!
- Upcycle and transform with imagination!
- Swop clothes with your mates!
- Donate old clothes to charities!

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ALL COMMUNICATION IS AN ART FORM BECAUSE IT REQUIRES CREATIVITY AND INVOLVES EMOTIONAL INTELLIGENCE.

The ART of COMMUNCATION ...

Some people are naturally gifted in this 'art form' and have no difficulty in sharing ideas and feelings with others.

It's not just about what you say, but how you say it. It is through words, tone, body language, listening, and sometimes even silence.

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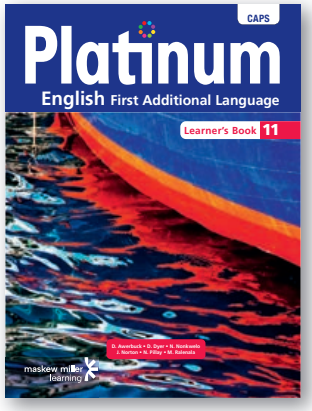
Want to be a COMMMUNICATION ARTIST?

Work on these skills and you will find yourself being understood and listened to.

- *Cut out the jargon and express your ideas simply and clearly.*
- *Listen to everybody around you. Half of communicating is being an active listener.*
- *Respond to what you are hearing. Ask questions and engage with the speaker.*
- *Show empathy and respect to people you talk to.*
- *Watch your non-verbal communication as your body language and facial expressions speak louder than words.*
- *Change your communication style to different audiences. You will speak differently to your friends and grandparents.*
- *Being confident makes others more likely to listen.*



Natural TALENT: A natural flair for communication comes from a variety of factors.

Some people grow up in environments where open discussion and storytelling is encouraged. This develops strong communication skills early on.

Some families encourage all members to speak up, express feelings, and listen carefully to everyone else. This helps.

People who are extroverts often (but not always) manage their emotions well and often communicate more effectively.

Formal education and training is a big plus in communication as one is trained to listen, ask questions and write essays and exams. (It is all about communication!)

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AFRICAN Countries

There are 54 countries in Africa.

ALGERIA IS THE LARGEST BY LAND AND NIGERIA IS THE LARGEST BY POPULATION.

South Africa ranks 9th in size.

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

Find these countries
NORTH OF THE EQUATOR

- ALGERIA
- EGYPT
- LIBYA
- MOROCCO
- TUNISIA
- MALI
- NIGER
- CHAD
- SENEGAL
- SUDAN

Equator 0°

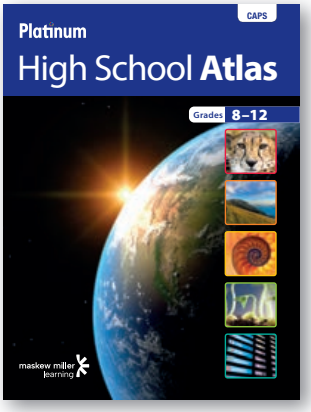
- Africa is the second-largest continent (after Asia) and covers about 20% of Earth's land area.

M	A	L	A	W	I	S	L	E	S
O	N	A	M	I	B	I	A	A	O
Z	Z	A	M	B	I	A	T	U	U
A	B	M	E	S	W	A	T	I	N
M	I	O	T	A	F	R	I	C	A
B	B	W	S	O	R	T	O	A	T
I	I	A	N	G	O	L	A	H	H
Q	U	O	B	L	S	B	W	A	I
U	E	A	B	W	A	B	I	M	T
E	S	O	U	T	H	A	F	R	I
L	E	S	O	T	H	O	Q	A	B
A	R	W	Z	I	M	B	A	B	W

Find these countries
SOUTH OF THE EQUATOR

- ANGOLA
- BOTSWANA
- MOZAMBIQUE
- MALAWI
- NAMIBIA
- ZAMBIA
- ZIMBABWE
- LESOTHO
- ESWATINI
- SOUTH AFRICA

You could fit the USA, China, India, and most of Europe inside Africa – and still have room left over!



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Would you have good BUSINESS ETHICS?

Ethics is basically figuring out what's right and wrong, and why we choose to do the right thing, even when it's difficult.

It's not just about following rules – it's making good choices because you believe it's the right thing to do.

ANSWER THESE QUESTIONS HONESTLY.

1 **You are in charge of your school's fundraiser. A classmate offers to 'boost' sales by pretending more people have donated than actually have. What should you do?**

A Let them help - it's for a good cause
B Accept - but only if no one finds out
C Say no - honesty matters, even if it's a good cause
D Do it once, to meet your goal

2 **Your friend starts a clothing business and uses designs they found on someone else's Instagram without asking. Is this okay?**

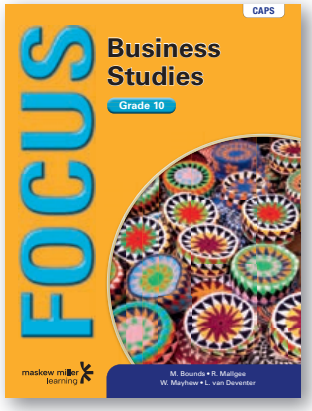
A Yes, because it's just for a small business
B No, because it's stealing someone else's work
C Yes, as long as they change it slightly
D Yes, if they don't make money from it

3 **You are working part-time at a smoothie shop. Your best friend asks you to give them a free drink and not ring it up. What's the right thing to do?**

A Give them the drink - it's just one
B Say no - it's stealing from your employer
C Give a discount instead
D Wait until the manager leaves and then give it to them

4 **A new pizza place in town wants to beat its competition. They spread false rumours about the other place's food. Is this OK?**

A Yes, business is about winning
B Only if it's funny and gets attention
C No, lying to hurt competitors is wrong
D Yes, as long as no one finds out



5 **Your friend runs a small online store selling second-hand clothing. They get a bad 'service review' from a customer. They want to delete it to keep their rating high. What should they do?**

A Delete the review - it's bad for business
B Leave the review and respond politely
C Argue with the customer in the comments
D Ignore it completely and hope it goes away

ETHICAL ANSWERS: 1 C; 2 C; 3 B; 4 C; 5 B

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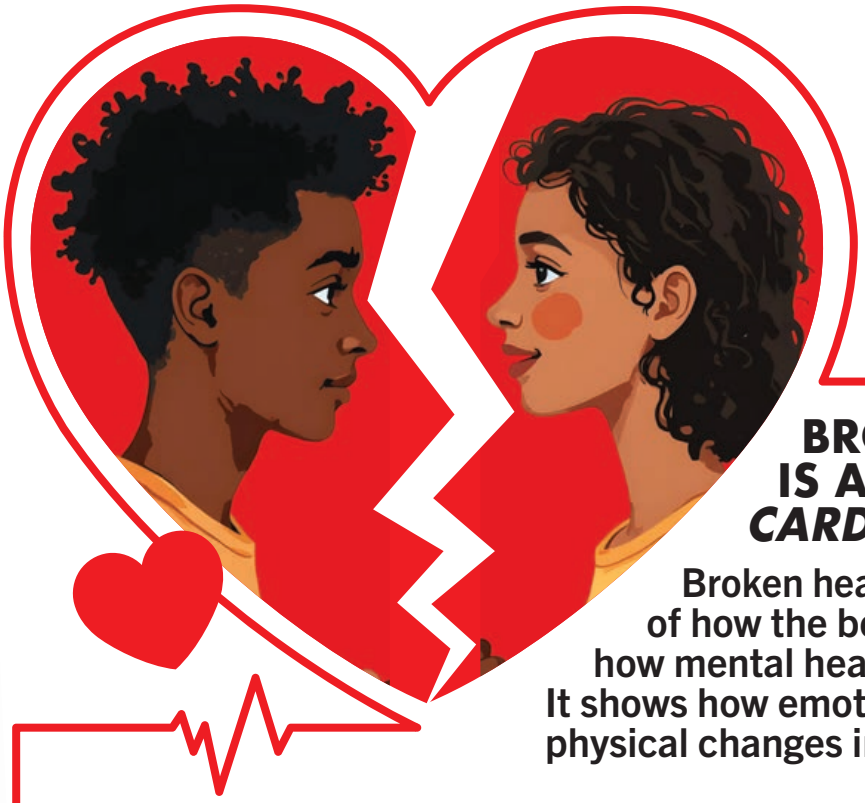
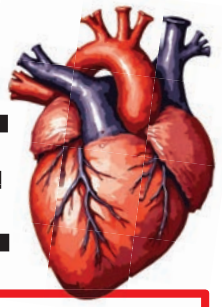


Broken heart SYNDROME



BROKEN HEART SYNDROME IS ALSO CALLED *TAKOTSUBO CARDIOMYOPATHY*

Broken heart syndrome (BHS) is a great example of how the body's systems work together, and how mental health can affect physical health. It shows how emotional stress can cause real, physical changes in the body.

Broken heart syndrome is a real medical condition where a person's heart temporarily weakens after a very stressful or emotional event - like the death of someone close, a romantic breakup, or even something shocking like an explosion very close by.

How the Heart Works

The heart has four chambers:

- Two atria (top chambers) receive blood.
- Two ventricles (bottom chambers) pump blood out.

The left ventricle is especially strong – its job is to pump oxygen-rich blood to the whole body.

What Happens when your heart breaks

- Your body releases a flood of stress hormones (like adrenaline).
- These hormones can 'stun' the left ventricle, so it doesn't pump properly.
- The left ventricle balloons out at the bottom, while the top still moves normally. This changes the shape, which soon looks like a *takotsubo*, a Japanese octopus trap. Hence the name!

What you feel

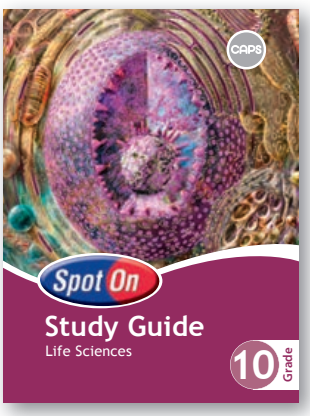
- Chest pain
- Shortness of breath
- A racing or pounding heart

Sometimes these symptoms are mistaken for a heart attack.

Why does it happen?

- Your brain and heart are connected through the nervous system and hormones.

Essentially – the physical heart responds to emotional feelings!



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How long till I am BORN?

THE PERIOD OF TIME BETWEEN BECOMING PREGNANT AND GIVING BIRTH IS CALLED ***GESTATION***.

9 months

3 months

12 months

2 months

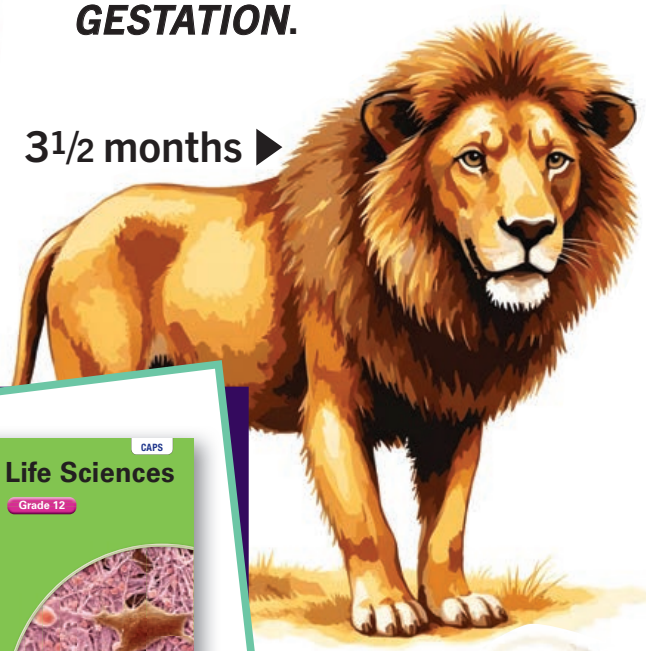
16 months

30 days

9½ months

5½ months

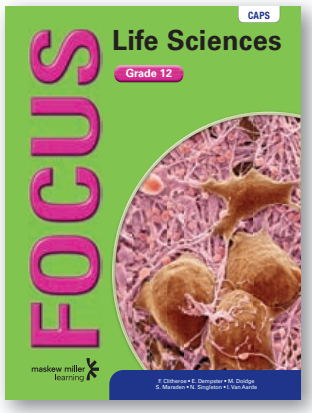
5½ months



3½ months

3½ months

20 days



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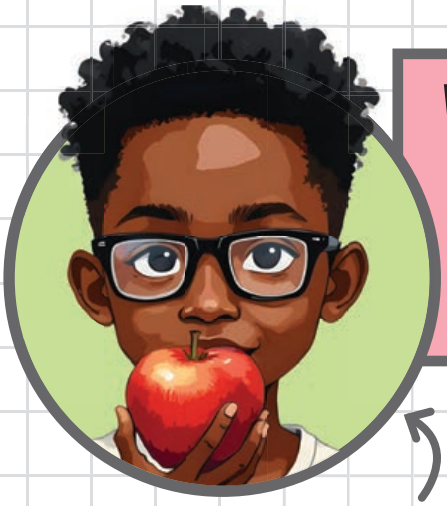
Where does my food go WHEN I EAT?

THE JOURNEY THROUGH MY DIGESTIVE SYSTEM.



I EAT THE FOOD.

My tongue mixes my saliva with the food.

My teeth and jaw chew the food into smaller pieces.

My salivary glands have enzymes that start to chemically break down the food.

The muscles in my esophagus contract and push the food down into my stomach.

My liver produces bile which helps neutralise the stomach acid and digest some vitamins.

My stomach churns the food and mixes it with strong acid to make it into a pulpy mass.

The bile, stored in my gall bladder, is excreted when it is needed.

In my duodenum, bile and enzymes continue to break down the food.

Muscles in my small intestine contract and push the food through. Here the food is digested, and the nutrients are absorbed into my body.

My large intestine absorbs nutrients and chemicals, and prepares the waste.

What's not needed passes out through my rectum as waste.

My colon absorbs the water and electrolytes.

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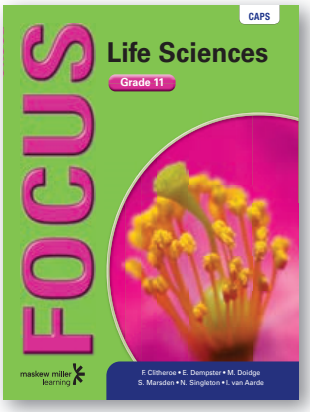

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COMMISSION IS MONEY YOU EARN, BASED ON THE SALES YOU MAKE.

Earning COMMI$$ION

Instead of getting paid a regular hourly wage or salary, you earn a percentage of what you sell.
E.g.: You work at a shoe store, earning 10% commission on each sale. If you sell a pair of slops for R100 you make R10 in commission.

- Some jobs are commission-only, meaning your pay depends completely on what you sell.
- Other jobs give you a base pay plus commission, so you always earn something, but can earn more by selling more.

LET'S SEE HOW THESE COMMISSIONS WORK FOR THESE STUDENT PART-TIME SALES STAFF.

Jonno works on Saturdays at a local clothing store in Jozi. He earns 10% commission on all his sales.
One Saturday he sells:

- A pair of jeans for R400
- A jacket for R650
- 6 T-shirts for R250 each

How much commission did Jonno earn?

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Lerato works at an electronics store in Durban. Her commission structure is:

- 5% commission on total monthly sales
- Bonus of R1 000 if she reaches a sales target of R20 000

In April, Lerato made R22 000 in total sales.

How much does Lerato earn in commission and bonus?

Anele sells cell phones at a shop in Cape Town. She earns:

- 5% commission on the first R5 000 of sales
- 8% commission on any amount above R5 000

In one weekend, she sells phones worth R23 000.

How much commission does Anele earn?

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Vitamin C

THE GLOW, THE FLOW, THE GO!

WHERE TO FIND IT: Oranges, strawberries, tomatoes, even broccoli – they're not just fruit and veg, they're basically your body's upgrade fuel.

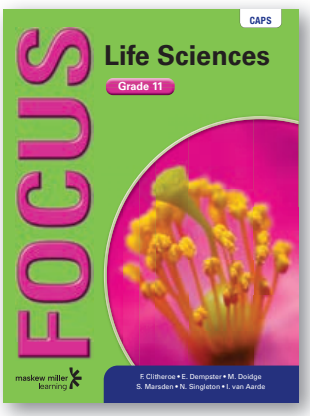
You need vitamin C because it acts as your body's secret upgrade fuel. Think of vitamin C as your body's maintenance crew and defence squad in one.

WHY YOU NEED IT:

- **Repairs & Builds**
  It helps make collagen – the stuff that keeps your skin smooth, your gums healthy, and your bones strong. No collagen … and things start falling apart.
- **Immune Boost**
  It's like giving your immune system an upgrade, so you don't get knocked out by every random flu bug.
- **Energy & Iron**
  Vitamin C helps your body absorb iron from food. No iron makes you feel drained, like your phone stuck on 5% battery.

WHAT HAPPENS IF YOU DON'T GET ENOUGH:

- You'll feel tired and weak.
- Your gums will bleed easily.
- Cuts and bruises heal super slowly.
- In extreme cases your skin will go rough, your joints will ache, and your whole body will feel like it's falling apart.



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