

GRADE 6

TERM 4

SUMMARIES & TESTS

PREVIEW



English HL Term 4 Summary + Test

Designing Minds | designingminds.co.za

UNIT 1: FOLKLORE – MYTHS & LEGENDS

In Weeks 1–2 you read and write a piece of folklore – a myth or legend. By Grade 6 you are expected to discuss elements such as characterisation, conflict, theme and messages in detail, and to write your own folklore using appropriate vocabulary and supernatural characters.

ELEMENTS OF FOLKLORE – IN DEPTH

ELEMENT	GRADE 6 EXPECTATION
 Characters & Characterisation Who is in the story – and HOW they are portrayed. Characterisation = the methods the writer uses to reveal character: actions, speech, what others say, physical description. In folklore, characters are often archetypal (the hero, the trickster, the wise elder, the villain).	Who is in the story – and HOW they are portrayed. Characterisation = the methods the writer uses to reveal character: actions, speech, what others say, physical description. In folklore, characters are often archetypal (the hero, the trickster, the wise elder, the villain).
 Plot Exposition Rising Action Climax Falling Action Resolution	The sequence of events: exposition → rising action → climax → falling action → resolution. In folklore, the plot is often fast-moving and built around a test or quest.
 Conflict The central struggle. Types: person vs person, person vs nature, person vs self, person vs supernatural. Folklore frequently shows the struggle between GOOD and EVIL.	The central struggle. Types: person vs person, person vs nature, person vs self, person vs supernatural. Folklore frequently shows the struggle between GOOD and EVIL.
 Setting Time and place. Folklore settings are usually timeless and unspecific: "long ago" or "in the beginning". Setting also contributes to atmosphere.	Time and place. Folklore settings are usually timeless and unspecific: "long ago" or "in the beginning". Setting also contributes to atmosphere.
 Narrator Who tells the story. Folklore is often third-person ("he/she/they"), giving the narrator a god-like view. First-person ("I") is less common.	Who tells the story. Folklore is often third-person ("he/she/they"), giving the narrator a god-like view. First-person ("I") is less common.
 Theme & Message Theme = the central moral idea (e.g. greed leads to destruction, the humble are rewarded). Message = what the author wants the reader to take away. A single text can have more than one theme.	Theme = the central moral idea (e.g. greed leads to destruction, the humble are rewarded). Message = what the author wants the reader to take away. A single text can have more than one theme.

REMEMBER: When you read or write folklore, think about how these elements create an exciting, meaningful story.

Types of folklore

Type	What it is
Folktale	A traditional story passed down by word of mouth, animals and a lesson.
Myth	A story that explains how or why something came to be, often with gods or supernatural beings.
Legend	A story about a hero or event from long ago but has been exaggerated over time.
Fable	A short story with animals that act like people.



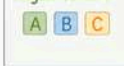
Designing Minds | designingminds.co.za

UNIT 3: POETRY

In Weeks 5–6 you read, discuss and write poems. A poem communicates feelings, images and ideas through careful word choice, rhythm and poetic devices. At Grade 6 you are expected to identify and comment on alliteration, repetition, simile, metaphor, personification, onomatopoeia, and symbol.

STRUCTURE OF A POEM

Poems have special building blocks that help create meaning, sound and feeling.

TERM	WHAT IT MEANS
 Stanza A group of lines in a poem (like a paragraph). The word "verse" is another name for stanza.	A group of lines in a poem (like a paragraph). The word "verse" is another name for stanza.
 Rhyme scheme The pattern of end rhymes in a poem. Label the rhyming lines with letters (A, B, C ...). Example: The stars are bright (A) On this cold night (A) I sit and dream (B) Of things that take me far (B)	The pattern of end rhymes in a poem. Label the rhyming lines with letters (A, B, C ...). Example: The stars are bright (A) On this cold night (A) I sit and dream (B) Of things that take me far (B)
 Rhyming words Words that have the same end sound. Examples: bright/night, dream/stream, fear/near.	Words that have the same end sound. Examples: bright/night, dream/stream, fear/near.
 Rhythm The pattern of stressed (strong) and unstressed (weak) syllables. This is the "beat" or musical sound of the poem. It helps the poem flow when it is read aloud.	The pattern of stressed (strong) and unstressed (weak) syllables. This is the "beat" or musical sound of the poem. It helps the poem flow when it is read aloud.
 Title The name of the poem. It often gives a clue to the theme or central image (the main idea or picture) of the poem.	The name of the poem. It often gives a clue to the theme or central image (the main idea or picture) of the poem.

TIP: When you read or write a poem, look for these features. They help you understand the poem and enjoy the meaning, sound and feeling the poet is creating.

Poetic Devices

Device	What it is	Example
Alliteration	Repetition of the same consonant sound at the start of nearby words.	"Slithering snakes sleep silently." "Dark drums drum deeply."
Repetition	Repeating a word, phrase or line for emphasis or effect.	"Run, run, run to the river – the rain is coming"
Simile	Compares two things using "like" or "as".	"Her laughter was like water over stones." "He stood as still as a rock."
Metaphor	States that one thing IS another – no "like" or "as".	"The moon is a lantern." "Life is a journey with no map."
Personification	Gives human qualities to something non-human.	"The wind whispered secrets." "The river swallowed the boat whole."



18

Designing Minds | designingminds.co.za

HOW TO MAKE A MINI PAPER BOOK

Follow these instructions carefully to make your own mini paper book.

YOU WILL NEED:

- 3 sheets of A4 paper
- A stapler
- Coloured pencils or crayons

TIPS:

- Line up the paper before folding it.
- Make a firm, neat crease.
- Check that the pages are in the correct order before stapling.

1 Stack the paper

Place the three sheets of paper neatly on top of one another.

2 Fold the paper

Fold all the sheets together in half. Press firmly along the fold.

3 Make the pages

Keep the paper folded. The folded sheets will form the pages of your book.

4 Staple the book

Ask an adult for help if necessary. Place two staples along the folded edge to hold the pages together.

5 Make the cover

Write a title on the front of your book. Add your name underneath.

6 Decorate it

Draw a colourful picture on the cover that matches your title.

7 Add page numbers

Open your book and number the pages neatly.

8 Start writing!

Use your mini book for a short story, facts, drawings or notes.

REMEMBER:

Instructions use command verbs such as place, fold, staple, write, draw and number.

Summarising an Instructional Text

When summarising instructions, use your own words and keep the steps in the correct order. You may write in POINT FORM using numbered or bulleted points, or in PARAGRAPH FORM using linking words to connect the steps.

Form	Example (Making a Mini paper book)
Point form	1. Stack three sheets of paper and fold them in half. 2. Staple the folded edge to hold the pages together. 3. Add a title and decorate the cover. 4. Number the pages and start writing in your book.
Paragraph form	First, stack three sheets of paper and fold them in half. Next, staple the folded edge to keep the pages together. Then, add a title and decorate the cover. Finally, number the pages and start writing in your mini book.



12



English HL Term 4 Summary + Test

- Folklore – Myths & Legends: characters, plot, conflict, setting, themes, stereotypes and writing folklore
- Instructional Texts: features, command verbs, sequencing, summarising and writing instructions
- Poetry: structure, rhyme, poetic devices, symbolism and analysing poems
- Language: adjectives and degrees of comparison, synonyms and antonyms, sentence types, adverbs, compound and complex sentences, subject and object, direct and indirect speech, and parentheses



Mathematics Term 4 Summary + Test

Designing Minds | designingminds.co.za

UNIT 3: CAPACITY & VOLUME

Capacity is how much a container can hold. Volume (of liquid) is how much liquid is actually in the container. At Grade 6 we add KILOLITRES (kl) and work with decimal forms to 2 decimal places.

UNITS AND CONVERSIONS

The three units of capacity/volume

1 000 ml = 1 ℓ (millilitres → litres)

1 000 ℓ = 1 kl (litres → kilolitres)

1 000 000 ml = 1 kl (millilitres → kilolitres)

★ ml → ℓ : ÷ 1 000 | ℓ → ml : × 1 000

★ ℓ → kl : ÷ 1 000 | kl → ℓ : × 1 000

★ Answers to 2 decimal places where necessary.

★ A kilolitre (kl) = 1 cubic metre (m³) — the volume of a 1m × 1m × 1m cube.
Useful for: large tanks, swimming pools, dams.

Converting between litres (ℓ), millilitres (ml) and kilolitres (kl)

Conversion	Working	Fraction form	Decimal form
2,5 ℓ → ml	2,5 × 1 000	2 500 ml	
3 750 ml → ℓ	3 750 ÷ 1 000	3¾ ℓ	
4 kl → ℓ	4 × 1 000	4 000 ℓ	
2 500 ℓ → kl	2 500 ÷ 1 000	2½ kl	
0,35 kl → ℓ	0,35 × 1 000	350 ℓ	
250 ml → ℓ	250 ÷ 1 000	¼ ℓ	

Remember: 1 000 ml = 1 ℓ | 1 000 ℓ = 1 kl | 1 kl = 1 000 ℓ | 1 kl = 1 000 000 ml

★ Remember: kl is used for VERY large volumes; e.g. a swimming domestic water tank might hold 5 kl. Household liquid measured in ℓ.



Designing Minds | designingminds.co.za

UNIT 2: TIME & TIME ZONES

We use clocks, watches and stopwatches to read time, and calendars to time zones help us work out what time it is in different parts of the world.

Units of time

60 seconds = 1 minute
60 minutes = 1 hour
24 hours = 1 day
7 days = 1 week
12 months / 365 days = 1 year (366 in a leap year)
10 years = 1 decade
100 years = 1 century



12-Hour and 24-Hour Time

12-Hour	24-Hour	12-Hour	
12:00 a.m.	00:00	12:00 p.m.	12:00
3:15 a.m.	03:15	1:30 p.m.	13:30
8:45 a.m.	08:45	6:00 p.m.	18:00
11:50 a.m.	11:50	11:59 p.m.	23:59

Stopwatches and short time intervals (add to Unit 2)

- A stopwatch measures short times in minutes, seconds and parts of a second e.g. 01:25,40 = 1 minute 25,40 seconds.
- To find the difference between two race times, first compare the minutes, then the seconds. Example: Sipho ran 1 min 12 s and Aya ran 58 s. 1 min 12 s = 72 s, so Aya was 72 – 58 = 14 seconds faster.
- 60 seconds = 1 minute. To change seconds to minutes and seconds, divide by 60. 150 s = 2 min 30 s.



5

Designing Minds | designingminds.co.za

UNIT 1: MASS

Mass is the amount of matter in an object. We measure mass in grams (g) and kilograms (kg). At Grade 6 we work with decimal and fraction forms of conversions (to 2 decimal places).

MEASURING INSTRUMENTS

Instrument	Used for	Reading the scale
Bathroom scale (analogue)	Body mass; large objects.	Stand on the scale. Read the pointer against the numbered dial.
Bathroom scale (digital)	Body mass; large objects.	Read the display. Units may show kg or kg and g.
Kitchen scale (analogue)	Ingredients in cooking/baking.	Place object in bowl. Read where the pointer rests.
Kitchen scale (digital)	Precise ingredient measurements.	Zero/tare the scale first, then read the display.
Balance scale	Comparing masses; weighing with standard masses.	Add standard masses until the two pans balance.

★ Tare / Zero: Always zero (tare) a kitchen scale before weighing - place the empty bowl first, press tare, then add your ingredient. This subtracts the bowl's mass.

UNITS AND CONVERSIONS

Key conversion

1 000 g = 1 kg

500 g = 0,5 kg = ½ kg

250 g = 0,25 kg = ¼ kg

750 g = 0,75 kg = ¾ kg

100 g = 0,1 kg

★ g → kg : DIVIDE by 1 000

★ kg → g : MULTIPLY by 1 000

★ At Grade 6, answers may be decimals to 2 decimal places.



3



Mathematics Term 4 Summary + Test

- Mass
- Time, Calendars & Time Zones
- Capacity & Volume
- Data Handling
- Mode & Median
- Analysing & Reporting Data
- All Four Operations in Context
- Financial Problems
- Ratio & Rate
- Fractions in Context



Life Skills (PSW) Term 4 Summary + Test

Designing Minds | designingminds.co.za

TOPIC 4: HIV & AIDS

Key Terms

TERM	MEANING
HIV	Human Immunodeficiency Virus – the virus that causes AIDS. It attacks the immune system.
AIDS	Acquired Immune Deficiency Syndrome – the advanced stage of HIV infection where the immune system is severely weakened.
Immune System	The body's defence system that fights off infections and diseases.
CD4 Cells	White blood cells (T-cells) that fight infection. HIV destroys these cells, leaving the body unable to fight illness.
ARVs (Antiretrovirals)	Medication that controls HIV, stops the virus from multiplying and keeps CD4 cell counts high. ARVs allow HIV-positive people to live long, healthy lives.
Stigma	Negative attitudes, discrimination, and judgement against people living with HIV/AIDS. Stigma is harmful and unfair.

Myths vs Realities About HIV and AIDS

MYTH (FALSE)	REALITY
HIV can spread by sharing food, cups, or plates.	HIV does NOT spread through food, cups, or plates.
You can get HIV from a mosquito bite.	HIV cannot be transmitted by mosquitoes.
People with HIV look sick.	Many people living with HIV are healthy and completely heal with ARVs.
HIV only affects certain types of people.	HIV can affect anyone, regardless of gender, race, or age.



Designing Minds | designingminds.co.za

SITUATION	SIGNS / SYMPTOMS	WHAT TO DO
Bruises 	- Purple/blue/black discolouration - Swelling - Pain - Tenderness	- Apply a cold/ice pack wrapped in cloth for 15–20 minutes - Elevate the injured area above heart level - Rest the injured body part
Poisoning 	- Nausea, vomiting - Stomach pain - Drowsiness - Confusion - Unusual smell on breath	- Call emergency services (10177 or 112) - Try to identify the poison/substance - Keep the person awake and calm - Bring the container or substance to hospital
Bleeding 	- Blood from wound - Internal bleeding: swelling, pain, bruising with no visible wound	- Apply firm, direct pressure with a clean cloth or bandage - Elevate the wound above heart level if possible - If cloth soaks through, add more on top (do NOT remove original cloth) - Seek urgent medical help for severe bleeding
Choking 	- Cannot speak/cry - Cannot breathe - Bluish lips - Clutches throat - Silent or ineffective cough	- Encourage strong coughing if person can still cough - Give 5 firm back blows between shoulder blades - If still choking: give 5 abdominal thrusts (Heimlich manoeuvre) - If person becomes unconscious: call 10177 / 112 immediately

Protect yourself when giving first aid

- Never touch another person's blood with your bare hands – wear rubber gloves or put plastic bags over your hands.
- Cover any cuts on your own hands first.
- Wash your hands with soap and water after helping.
- Always shout for an adult and call for help: ambulance 10177, from a cell phone 112.



Designing Minds | designingminds.co.za

Witchcraft or a curse causes HIV/AIDS.	HIV is caused by a virus (HIV). It is a medical condition, not a curse.
You can get HIV from swimming pools or toilets.	HIV cannot survive outside the human body. Water and toilet seats do NOT transmit HIV.
Hugging or shaking hands with a person with HIV is dangerous.	Casual contact (hugging, shaking hands, talking) does NOT spread HIV.
There is a cure for HIV.	There is currently NO cure for HIV. ARVs control the virus but do not eliminate it.

HIV Transmission: How It Spreads and How It Does NOT Spread

HOW HIV IS TRANSMITTED (SPREAD)	HOW HIV IS NOT TRANSMITTED
- Unprotected sexual contact with an infected person - Sharing needles, syringes, or drug equipment - Blood transfusions with infected blood - From an HIV-positive mother to her baby during pregnancy, birth, or breastfeeding	- Hugging, kissing, or shaking hands - Sharing food, drinks, or utensils - Coughing or sneezing - Mosquito or other insect bites - Sharing toilets, swimming pools, or baths - Everyday social contact

Caring for People with HIV and AIDS

EMOTIONAL SUPPORT	PHYSICAL SUPPORT	SOCIAL SUPPORT
- Treat them with dignity and respect. - Listen and offer a caring presence. - Encourage them to express their feelings. - Avoid judgement or blame. - Help reduce stigma in your community.	- Help with daily tasks (cooking, cleaning) if needed. - Remind them to take their ARV medication. - Ensure they eat nutritious meals. - Encourage regular check-ups at the clinic. - Help them stay active and healthy.	- Protect their privacy and confidentiality. - Do NOT share their HIV status without permission. - Include them in family and community activities. - Speak positively about HIV to reduce stigma. - Support them emotionally when they face discrimination.



12



4

Life Skills (PSW) Term 4 Summary + Test

- Basic First Aid
- First Aid Safety
- Food Hygiene
- Food Storage & Safety
- Food-Borne Diseases
- Communicable Diseases
- Common Diseases – mumps, tuberculosis (TB), the common cold, chickenpox, athlete's foot and COVID-19
- HIV & AIDS



History Term 4 Summary + Test

Designing Minds | designingminds.co.za

UNIT 1: INDIGENOUS HEALING IN SOUTH AFRICA

Long before Western doctors arrived in South Africa, indigenous people had developed their own systems of healing. This knowledge was passed from generation to generation by traditional healers.

Types of Traditional Healers

Sangoma

Role

A diviner who communicates with ancestors to find the spiritual cause of illness, also called an "izinyanga" in some cultures.

Inyanga

Role

A herbalist who uses plants and roots to prepare medicines and remedies.

Isangoma

Role

Uses bones, shells and other objects to diagnose the cause of illness.

Traditional healers and spiritual healing

Healer	What they do
Sangoma (diviner)	Is called by the ancestors to become a with an experienced sangoma. Finds a communicating with the ancestors, oft shells.
Inyanga (herbalist)	Has deep knowledge of plants, roots or herbal medicines.

- Traditional healing is holistic — it treats the whole person (relationship with the ancestors), not only the sick part of t
- Spiritual healing may include prayers, rituals, dancing and relationships with the ancestors.
- Today many South Africans use both traditional healers or healers work together, for example to help patients with 1



Designing Minds | designingminds.co.za

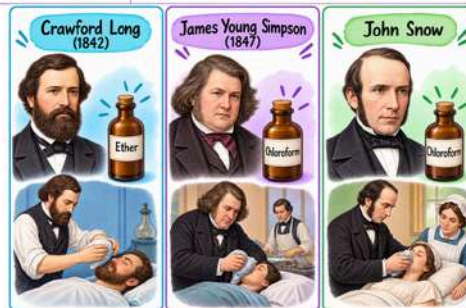
UNIT 5: DISCOVERIES THAT MADE SURGERY

Before the mid-1800s, surgery was extremely dangerous. Patients suffer (there were no painkillers), and many died from infections after operation. important discoveries changed this completely.

1. Anaesthetics — Ending the Pain of Surgery

An anaesthetic is a substance that prevents a patient from feeling pain. Before anaesthetics, patients were held down or given alcohol while surg quickly as possible.

Key Figure	Discovery
Crawford Long (1842)	First used ether as a surgical anaesthet
James Young Simpson (1847)	Introduced chloroform as an anaesthet much safer and more humane.
John Snow	Improved the use of chloroform anaesthesia; used it during Queen Victoria's childbirth.



2. Avoiding Infection — Antiseptics

Even after anaesthetics were developed, many patients died from infections after surgery. A British surgeon named Joseph Lister read about Pasteur's germ theory and realised that germs were causing infections in wounds.

Joseph Lister (1827–1912) introduced antiseptic (germ-killing) techniques into surgery.

- He used carbolic acid (phenol) to sterilise surgical instruments, wounds and dressings.



12

Designing Minds | designingminds.co.za

PRACTICE QUESTIONS

PRACTICE TEST: TERMS 3 AND 4

Name: _____ Date: _____

Time: 1 hour

Total: 40 marks

- Answer ALL the questions.
- Read each source carefully before you answer.
- Write in full sentences.

SECTION A: DEMOCRACY AND CITIZENSHIP (TERM 3)

Question 1 Read Source A and answer the questions.

Source A

On 27 April 1994, South Africans of all races voted together for the first time. Almost 20 million people voted, and many stood in long queues for hours, singing and talking while they waited. Nelson Mandela became the first president chosen by all South Africans. In 1996, a new Constitution was signed. It is the highest law in the country, and its Bill of Rights protects the rights of every person, including children.

1.1 On what date did South Africa hold its first democratic election? (1)

1.2 Who became president after this election? (1)

1.3 According to the source, about how many people voted? (1)



20



History Term 4 Summary + Test

- Indigenous Healing in South Africa – traditional healers, spiritual healing and indigenous plants used as medicine
- Edward Jenner – smallpox and the development of vaccination
- Louis Pasteur – germ theory, pasteurisation and vaccines
- Robert Koch – tuberculosis (TB) and identifying disease-causing bacteria
- Discoveries that made surgery possible – anaesthetics, antiseptics, blood transfusions and X-rays
- Christiaan Barnard – the world's first human heart transplant



Geography Term 4 Summary + Test

Designing Minds | designingminds.co.za

UNIT 1: WHY PEOPLE LIVE WHERE THEY DO IN SOUTH AFRICA

People choose to live in certain places for two main groups of reasons: physical (natural) reasons and human (social) reasons.

1.1 Physical (Natural) Reasons for Settlement

The natural environment has a big effect on where people settle. People settle in places where nature makes it easier to live.

Natural Factor	How it Affects Settlement
Climate 	People prefer areas with mild temperatures and reliable (regular) rainfall. Areas that are too hot, too cold, or too dry are usually less populated. Good rainfall means water for drinking, farming, and animals.
Vegetation and fertile land 	Flat, fertile land with good soil is ideal for farming. Areas where crops grow well attract more people. South Africa's highveld grasslands and coastal areas are more fertile and more populated.
Water sources (rivers) 	People settle near rivers, lakes and streams because they provide fresh water for drinking, cooking, farming and transport. Many of South Africa's cities grew up near rivers.
Natural features 	Flat land is easier to build on. Natural harbours allowed ships to dock safely, helping port settlements were built on hills for protection.

Examples in South Africa: Cape Town grew near a natural harbour. Johannesburg grew on the Highveld near gold deposits. Durban grew near a natural harbour.



Designing Minds | designingminds.co.za

New Words:

Apartheid – A system of laws in South Africa (1948–1994) that separated people where black people could live and work.

Homelands – Areas set aside under apartheid where black South Africans lived.

Pass laws – Apartheid laws that controlled where black people could live.

1.3 Human (Social) Reasons for Settlement - Resources and Activities

People also settle where there are natural resources and economic activities, work and income.

Human Activity / Resource	How it Attracts Settlement
Mining 	When valuable minerals like gold, diamonds or coal are found, thousands of workers move to the area. A small camp grew into a large city after gold was discovered on the Witwatersrand in 1886. Kimberley grew rapidly after diamonds were found there in 1867.
Farming 	Fertile areas attract farm workers and their families. The Western Cape (wine and fruit), KwaZulu-Natal (sugar cane) and the Boland are examples of farming settlements.
Fishing 	Coastal areas with good fishing attract fishing communities. Towns like Hout Bay and Gansbaai on the Western Cape coast grew as fishing centres.
Trade 	Areas that are good for buying and selling goods attract traders and merchants. Port cities like Cape Town, Durban and Port Elizabeth grew because ships could load and unload goods there.
Manufacturing (factories) 	Factories create jobs and attract workers. Industrial areas in Gauteng and the Eastern Cape attract many workers.

Remember: Where there are jobs and resources, there are people. This is why Gauteng - where gold was found and where most industries are - has more people than any other province.



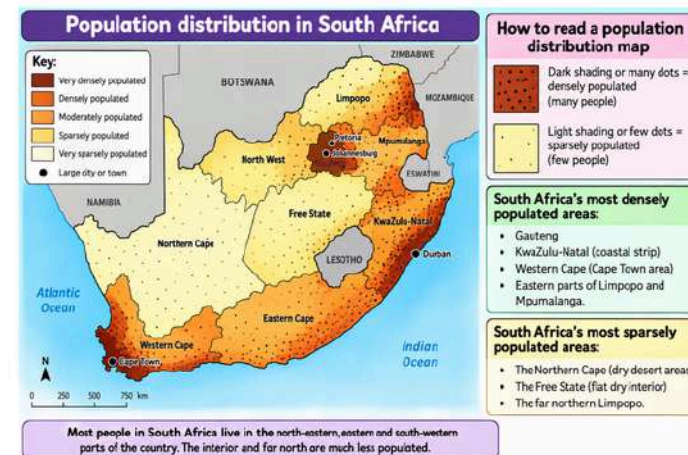
6

Designing Minds | designingminds.co.za

UNIT 3: POPULATION IN SOUTH AFRICA - PROVINCES

3.1 Population Distribution in South Africa

Population distribution describes where people live across South Africa. People are NOT spread evenly across the country. Some provinces are very densely populated (many people per km²) while others are very sparsely populated (few people per km²).



3.2 Population Figures per Province

South Africa's total population is approximately 62 million people (2022 census). The table below shows the approximate population of each province:

Province	Approximate Population	Key Cities
Gauteng	15.1 million (MOST people)	Johannesburg, Pretoria, Ekurhuleni
KwaZulu-Natal	11.5 million	Durban, Pietermaritzburg
Western Cape	7.0 million	Cape Town, Stellenbosch
Eastern Cape	6.7 million	Port Elizabeth (Gqeberha), East London
Limpopo	5.7 million	Polokwane



9



Geography Term 4 Summary + Test

- Population & Settlements
- Why People Live Where They Do in South Africa
- Natural Factors
- Human Factors
- Rural & Urban Areas
- Urbanisation
- Population Distribution in South Africa
- Population Density
- World Population Distribution
- Major World Cities
- Case Study: Cairo, Egypt



Natural Science & Technology Term 4 Summary + Test

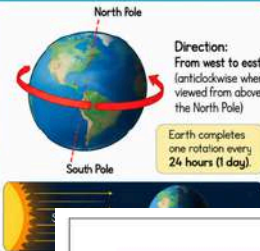
Designing Minds | designingminds.co.za

UNIT 2: MOVEMENTS OF THE EARTH AND PLANETS

Key Words

Rotation: Spinning movement of a planet or moon on its own axis.
Revolution: Movement of a planet orbiting around the Sun (or a moon around a planet).
Axis: An imaginary line through the centre of a planet from pole to pole, around which it rotates.
Day: The time it takes for Earth to rotate once on its axis (24 hours).
Year: The time it takes for Earth to revolve once around the Sun (365 days).

Earth's Rotation

Feature	Details	Diagram
What it is	Earth spinning (rotating) on its own axis. An imaginary line that goes through the North Pole and South Pole.	
Direction	From west to east (anticlockwise when viewed from above the North Pole).	
Time taken	24 hours = 1 day	
Result	Causes day and night.	

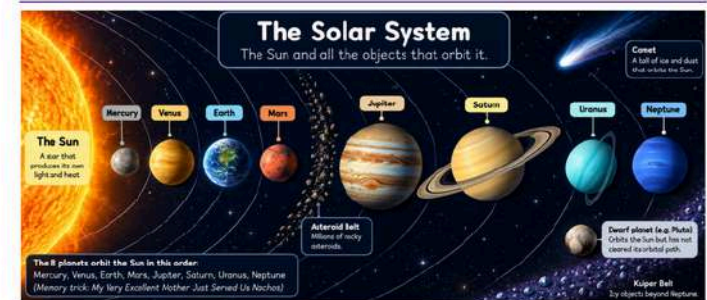
How day and night occur:

- The side of Earth facing the Sun experiences DAYTIME - it receives light and heat.
- The side of Earth facing away from the Sun experiences NIGHT - it is dark.
- As Earth rotates, the sides switch, giving us day and night.



Designing Minds | designingminds.co.za

UNIT 1: THE SOLAR SYSTEM



Key Words

Solar System: The Sun and all the objects that travel around it, including planets, moons, asteroids and comets.
Planet: A large, round object that travels around the Sun in its own orbit and does not give out its own light.
Asteroid: A rocky or metallic object that orbits the Sun; most are found in the Asteroid Belt.
Moon: A natural satellite that orbits a planet.
Orbit: The curved path one object takes around another object in space.
Star: A huge ball of hot gas that produces its own light and heat energy.

The Sun

- The Sun is a star - a huge ball of hot gases at the centre of our Solar System.
- The Sun is the only star in our Solar System. It produces its own light and energy.
- The Sun is about 150 million km from Earth.
- All planets revolve (orbit) around the Sun.

Stars and planets

- A star, like the Sun, is a huge ball of very hot gas that gives out its own heat and light.
- Planets and moons do NOT give out their own light. We see them because light from the Sun shines on them.



3

Designing Minds | designingminds.co.za

Did You Know? Because the Moon takes the same amount of time to rotate as it does to orbit Earth (27.3 days), we always see the SAME side of the Moon. The other side is called the "far side of the Moon" and was first photographed in 1959.

Phases of the Moon

The Moon does not produce its own light - it reflects light from the Sun. As Earth, we see different amounts of the lit side, giving us the phases.

The Phases of the Moon (South Africa view)			
In South Africa (Southern Hemisphere) the lit side of the Moon is the opposite to the Northern Hemisphere. A waxing Moon is lit on the LEFT and a waning Moon is lit on the RIGHT.			
Phase	Image (South Africa view)	What we see (in South Africa)	Position (relative to Earth and Sun)
New Moon		The Moon is not visible (dark side faces Earth).	
Waxing Crescent		A small sliver of the Moon is visible on the LEFT side (getting bigger).	
First Quarter		Half of the Moon's LEFT side is lit and visible.	
Waxing Gibbous		More than half of the Moon is visible on the LEFT side, still growing.	
Full Moon		We see the fully lit side of the Moon.	
Waning Gibbous		More than half of the Moon is lit on the RIGHT side, now getting smaller.	
Last Quarter		Right half of the Moon is lit and visible.	
Waning Crescent		A small sliver of the Moon is visible on the RIGHT side, almost back to new moon.	

Remember: The Moon always shows the same side to Earth because it takes the same time (27.3 days) to rotate and to revolve.

Key word: Phase - the different shapes of the Moon as seen from Earth.

Did you know? The complete cycle of moon phases takes about 29.5 days (one lunar month).



10



Natural Science & Technology Term 4 Summary + Test

- The Solar System
- Earth and Planetary Movement
- The Moon
- Telescopes & Space Observation
- Exploring the Moon & Mars
- Systems & Control
- Technology Design

