

GRADE 7

TERM 4

SUMMARIES & TESTS

PREVIEW



English HL Term 4 Summary + Test

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HOW TO WRITE A FLYER

Make it eye-catching and give important information clearly!

EYE-CATCHING HEADLINE
Use large, bold letters that grab attention immediately.

KEY INFORMATION
Include what, where, when and how much information as possible.

CALL TO ACTION
Encourage people to take part. Use phrases like "Join us!" or "Register now!"

VISUAL DESIGN ELEMENTS
Use bright colours, images, icons, borders and layout to make your flyer attractive and easy to read.

CONCISE AND PUNCHY LANGUAGE
Use strong, simple words. Every word must count! Use imperative (bossy) verbs like "Bring", "Join", "Help".

JOIN OUR RECYCLING DRIVE!

LET'S KEEP OUR SCHOOL AND COMMUNITY CLEAN!

BRING YOUR RECYCLABLES:

- PAPER
- PLASTIC
- GLASS
- TIN

THURSDAY, 4 SEPTEMBER 2026

TIME: 08:00 - 13:00

SCHOOL HALL

PRIZES FOR THE TOP THREE CONTRIBUTORS!

CONTACT: Ms T. Shabalala - Room 12 or ext. 204

EVERY ITEM COUNTS. LET'S MAKE A DIFFERENCE TOGETHER!

CONTACT DETAILS
Always include how people can get more information.

★ **TOP TIP:** Keep it clear, simple and to the point. People should see your message in a few seconds!

Section B: Summary Writing

A summary condenses a text to its essential main ideas. At Gr 7 demanding - you must select ideas accurately, paraphrase effectively, cohesively, well-structured paragraph or series of points.

Step	What to do
1. Read carefully	Read the full text at least twice. Understand the structure.
2. Identify main ideas	Distinguish between main ideas and supporting key points only.
3. Plan	List the main points in logical order before writing. Examples, statistics or quotations from the text.



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Model Poem — "The City at Night" (for study)

The city never sleeps — it breathes and churns,
A restless beast of glass and steel and light,
While in the dim back streets the traffic turns
And neon signs bleed colour through the night.

The buildings lean together, whispering low,
Of deals and dreams that crumble into dust;
The pavement knows each footstep, fast or slow,
And holds them all in silence, patient trust.

But when the grey dawn stretches, cold and thin,
The city sheds its neon skin and sighs —
A child again, scrubbed clean, about to begin,
Beneath the wide indifference of the skies.

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Section B: Giving Directions

Giving directions is a transactional text - it has a clear purpose (to guide someone) and a specific audience. Good directions are precise, sequential and easy to follow.

Feature	What to include
Imperative verbs	Start each step with a command: turn, walk, cross, continue, pass, go, take.
Precise language	Name streets, landmarks, distances, and directions (north/south/east/west or left/right).
Sequential order	Number each step. Use linking words: first, then, next, after that, finally.
Reference points	Use landmarks: "past the post office", "opposite the school", "at the traffic light".
Distance/time	Include measurements where helpful: "walk 200 m", "about a 5-minute walk".



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Language Focus: Rhetorical Questions and Abbreviated Statements

Term / Concept	Explanation / Example
Rhetorical question	A question asked for EFFECT, not expecting a literal answer. Used in persuasive writing and speeches to engage the reader or emphasise a point. E.g. "How can we stand by while our environment is destroyed?" "Is this the kind of school we want to leave for those who come after us?" "Do we really need another plastic bag?"
Effect of rhetorical questions	Involve the reader/audience directly. Create emphasis and emotional impact. Make arguments seem more urgent or obvious.
Contractions/Abbreviated Forms	Words or phrases shortened by omitting letters (marked with an apostrophe). I am → I'm I will → we'll I do not → don't I would have → would've Used in informal writing (diary entries, emails to friends) — avoid in formal writing.

Remember: In a summary, NEVER copy full sentences from the text. Instead, identify the idea and restate it in your own words. A useful test: cover the original text, recall the main idea, and write it from memory. If your sentence sounds like the original, paraphrase more.

Reflexive pronouns

Reflexive pronouns end in -self or -selves and refer back to the subject: myself, yourself, himself, herself, itself, ourselves, yourselves, themselves. E.g. The learners reminded themselves to close the taps. (Never write "theirselves" or "hissself".)

PRACTICE ACTIVITY 12: Email and Diary Analysis

Use the model email and diary entry above to answer these questions.

a) Name FOUR format features of the model email.

(4)

.....

.....

.....



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English HL Term 4 Summary + Test

- Poetry, figurative language, rhyme, mood & theme
- Giving directions
- Notices, agendas & minutes
- Visual texts and graphs
- Formal emails, diary entries & flyers
- Summary writing
- Grammar, language structures & punctuation
- Active & passive voice
- Direct & reported speech
- Pronouns, clauses, derivatives & subject-verb agreement
- Transactional writing & exam preparation



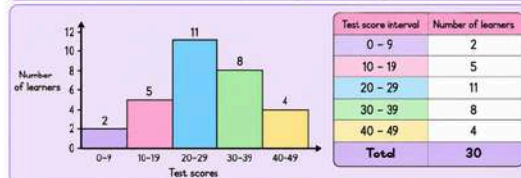
Mathematics Term 4 Summary + Test

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Bar graph vs Histogram: key difference

- **BAR GRAPH:** categories are **SEPARATE** and **DISCRETE** (e.g. favourite colours, subjects). Bars have **GAPS** between them.
- **HISTOGRAM:** numerical data is **GROUPED** into intervals (e.g. heights, marks or ages). Bars have **NO GAPS** - they touch.

EXAMPLE: Reading a histogram



1 How many learners scored 20 or more?

Answer: $11 + 8 + 4 = 23$ learners.

2 What fraction of the learners scored less than 10?

Answer: $\frac{2}{30} = \frac{1}{15}$

3.5 ANALYSING, INTERPRETING AND REPORTING DATA

Questions to ask when analysing data

- What is the mean, median and mode? Which is the best summary?
- What is the range? Is the data widely spread or tightly clustered?
- Are there any **OUTLIERS** (values much higher or lower than the rest)?
- What is the most/least popular category?
- What fraction or percentage of total does each category represent?
- Are there any errors or **BIASES** in how the data was collected?

Identifying sources of error and bias

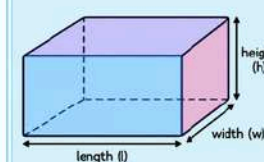
- **SAMPLE BIAS:** the sample does not represent the population (e.g. asking only girls about a "favourite sport" survey).
- **QUESTION BIAS:** the question leads the respondent to a particular answer (e.g. "Don't you agree that football is the best sport?").
- **RECORDING ERROR:** mistakes made when collecting or recording data.
- **RESPONSE BIAS:** respondents not answering honestly.



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2.2 THE RECTANGULAR PRISM (CUBOID)

Properties of a rectangular prism



Key properties

- 6 faces: 3 **PAIRS** of identical rectangles.
- Dimensions: length (l), width (w), height (h).

Surface area

$$SA = 2 \times (lw + lh + wh) = 2lw + 2lh + 2wh$$

Volume

$$V = l \times w \times h$$

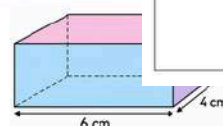
EXAMPLE: Rectangular prism

Surface area:

$$\begin{aligned} SA &= 2 \times (lw + lh + wh) \\ &= 2 \times (6 \times 4 + 6 \times 3 + 4 \times 3) \\ &= 2 \times (24 + 18 + 12) \\ &= 2 \times 54 \\ &= 108 \text{ cm}^2 \end{aligned}$$

Volume:

$$V = 6 \times 4 \times 3 = 72 \text{ cm}^3$$



★ **How to remember the SA formula:** Think of a rectangular prism as having 3 pairs of faces: Top & bottom ($l \times w$) - Front & back ($l \times h$) - Left & right ($w \times h$). Add one of each pair, then multiply by 2.



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UNIT 1: AREA & PERIMETER OF 2D SHAPES

Perimeter is the total distance around the outside of a shape. Area is the amount of space inside a flat (2D) shape. At Grade 7 we use formulae and work with SI unit conversions.

1.1 PERIMETER

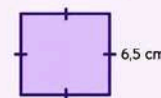
Perimeter Formulae

Perimeter is the total distance around the outside of a shape. It is measured in units of length (m, km, etc.).

Shape	Formula	Where ...	Diagram
Square	$P = 4 \times s$	s = side length (all four sides are equal)	
Rectangle	$P = 2 \times (l + w)$	l = length (opposite sides are equal) w = width (opposite sides are equal)	
Triangle	$P = a + b + c$	a, b and c = the three side lengths (add all three sides together)	
Regular polygon	$P = n \times s$	n = number of sides s = side length (all sides are equal)	
Irregular polygon	Add the lengths of ALL sides.	Measure each side and add them together.	

EXAMPLE - Perimeter calculations

Square

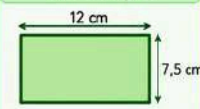


Side length (s) = 6,5 cm

$$\begin{aligned} P &= 4 \times s \\ P &= 4 \times 6,5 \\ P &= 26 \text{ cm} \end{aligned}$$

Perimeter = 26 cm

Rectangle

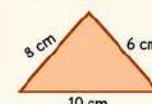


Length (l) = 12 cm
Width (w) = 7,5 cm

$$\begin{aligned} P &= 2 \times (l + w) \\ P &= 2 \times (12 + 7,5) \\ P &= 2 \times 19,5 \\ P &= 39 \text{ cm} \end{aligned}$$

Perimeter = 39 cm

Triangle



Side lengths: 8 cm, 6 cm and 10 cm

$$\begin{aligned} P &= a + b + c \\ P &= 8 + 6 + 10 \\ P &= 24 \text{ cm} \end{aligned}$$

Perimeter = 24 cm



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Mathematics Term 4 Summary + Test

- Area & perimeter of 2D shapes
- Area and SI unit conversions
- Surface area & volume of cubes and rectangular prisms
- Volume and capacity conversions
- Relationship between surface area and volume
- Data handling and the data cycle
- Mean, median, mode & range
- Stem-and-leaf displays and grouped data
- Bar graphs, double bar graphs, histograms & pie charts
- Analysing data, bias and interpreting results



Life Orientation Term 4 Summary + Test

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The 5 Food Groups and Their Nutrients

Food Group	Nutrient	Why It Is Good for Me
Grains (bread, rice, pasta, maize)	Carbohydrates	Give our bodies energy for daily activities.
Meat, fish, eggs, beans, legumes	Protein	Build and repair our muscles, cells and tissues.
Fruit and vegetables	Vitamins and minerals	Help our bodies grow, develop and fight off disease.
Fats, oils and sugar	Fats and sugars	Give energy — but are unhealthy in large amounts.
Dairy (milk, cheese, yoghurt)	Calcium	Build strong bones and teeth.

Ways to improve your diet

- Eat a variety of foods from all five food groups every day.
- Eat smaller portions of unhealthy food (high in fat, sugar and salt).
- Eat more fruit and vegetables.
- Drink water instead of cool drinks and juices.
- Read food labels to check what is in your food.
- Eat regular meals – do not skip breakfast.
- Choose whole grains (brown bread, brown rice) over refined v



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The 7 Major Religions in South

Religion	Place of Worship	Central Figure	Holy B
African Traditional Religion	Home and other sacred places	God (Qamata / UMvelinqangi) and Ancestors	
Bahá'í Faith	Bahá'í Houses of Worship on every continent	God	KITÁB-I-AQDÁS
Buddhism	Monastery, temple or in the home	Buddha	TRIPITAKA
Christianity	Church	God and Jesus	HOLY BIBLE The Bible – includes history, law, prophecy, poetry, wisdom, letters and gospels
Hinduism	Temple and at home	Brahman (the supreme reality without a form)	BHAGAVAD GITA The Vedas. The Bhagavad-Gita is the best-known scripture.
Islam	Mosque and at home	Allah and the prophet Mohammed	QURAN The Quran – believed to be the word of Allah; teaches how Muslims should live their lives
Judaism	Synagogue	God	The Tanakh (Hebrew Bible): Torah (Law), Nevi'im (Prophets) and Ketuvim (Writings). The Talmud explains Jewish law.

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PRACTICE QUESTIONS

PRACTICE EXAM: LIFE ORIENTATION GRADE 7

Name: _____ Date: _____

Time: 1½ hours

Total: 70 marks

- Answer ALL the questions in Sections A and B.
- In Section C, answer any TWO of the three questions.
- Write in full sentences in Sections B and C.

SECTION A (25)

Question 1 Multiple choice. Circle the correct letter.

1.1 A family eats only halal food because of their religion. Which factor influences their diet? (1)

- A ecological B economic C cultural D political

1.2 Which nutrient helps to build strong bones and teeth? (1)

- A calcium B carbohydrates C fats D sugar

1.3 Which disease is caused by a virus that attacks the immune system? (1)

- A epilepsy B HIV C obesity D anorexia

1.4 A person with Type 1 diabetes needs... (1)

- A antibiotics B daily insulin C a special diet only D an operation

1.5 Which is NOT a symptom of TB? (1)

- A night sweats B coughing up blood C weight loss D an itchy rash

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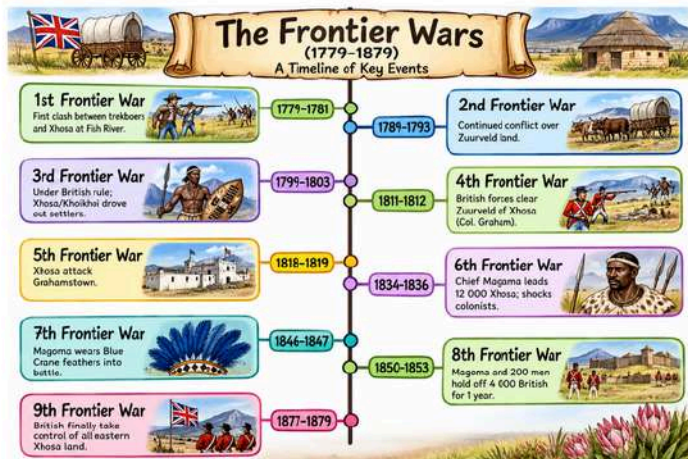
Life Orientation Term 4 Summary + Test

- Personal diet and nutrition
- Food groups and healthy eating
- Common diseases, including TB, diabetes, epilepsy, obesity, anorexia, HIV/AIDS and COVID-19
- Treatment, care and support
- Grief, trauma and loss
- Major religions in South Africa
- Oral traditions and scriptures



History Term 4 Summary + Test

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"About our world": The series of wars on the eastern frontier of the Cape were the LONGEST in the history of colonialism in Africa. They are also known as "Africa's 100 Years' War".

Clearing the Zuurveld (4th Frontier War, 1811-1812)

There were more than 8 000 Xhosa-speaking farmers living in the families of white settlers. The British wanted to force the Xhosa to

- Colonel John Graham commanded the British forces.
- He ordered 500 men to enter the bush to shoot anything that
- All villages were burnt and grain stores destroyed.
- This removed all remaining African inhabitants from the Zuurveld.

Colonel John Graham said in 1811: "My intention is now to attack I confidently hope will leave a lasting impression on their memory vast superiority in all situations."

Ndlambe and Graham: In one famous encounter, Ndlambe shook stamped his foot on the ground and said: "This land is mine!"



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CASE STUDY: Chief Maqoma (1798-1873) and Xhosa Resistance

Chief Maqoma and the Frontier Wars

Some say that Maqoma was the greatest military commander in Xhosa history. He fought the growing Cape Colony in three frontier wars. All sources agree that he was a brave warrior; very skilled at planning military tactics, a masterful politician and a brilliant public speaker.

Maqoma's Role in the Frontier Wars

Frontier War	Maqoma's Role
6th Frontier War (1834-36)	Led 12 000 Xhosa across the entire frontier in small raid of settler districts were not able to function. 20 whites, 455 homesteads burned; thousands of horses, cattle and sheep killed.
7th Frontier War (1846-47)	Shown wearing the Blue Crane feathers of a soldier who in battle. Chief Maqoma and his soldiers defeated the British.
8th Frontier War (1850-53)	With a small army of about 200 Xhosa and Khoikhoi, Maqoma held off a British army of 4 000 for more than a year at his stronghold of Waterkloof.

Maqoma's Life and Imprisonment

- Maqoma was imprisoned on Robben Island for 12 years.
- He was paroled (set free under strict conditions) in 1869.
- When he attempted to resettle on his stolen land, he was sent back to the island prison.
- He died under mysterious circumstances on Robben Island in 1873.

Different historical views of Maqoma:

- NEGATIVE view:** "He was a drunkard who ill-treated his wives." (Standard Encyclopaedia, 1970)
- CONTEXT:** "He drank mainly at meetings with colonial officials, who deliberately gave him too much alcohol to try to confuse his judgment." (Maqoma biography, sahistory.org.za)
- MILITARY view:** "During the 6th Frontier War, Maqoma led the Xhosa against the Cape Colony." (Cameron & Spies)

Military commander: An army leader in war.

Paroled: Set free under strict conditions.



SUB TOPIC 1: UNIT 3 – BRITISH IMMIGRATION

When the British took over the Cape in 1806, there were about 25 000 (mainly Dutch) European settlers at the Cape. There had already been five frontier wars between the Xhosa and white settlers before 1820. The Cape Government wanted to increase the number of white people in the area and enlist more British people to defend the Eastern frontier against the Xhosa.

The 1820 Settlers

- In 1820, the government in Britain paid for a large group of about 4 000 unemployed British people and their families to go to the Cape as settlers.
- The ships carrying these settlers landed at Algoa Bay.
- Each family was given a small piece of farm land to grow crops.



The 1820 Settlers

The settlers were given small farms in the Zuurveld (the Albany district), to form a barrier between the colony and the Xhosa.

- More than half came from towns and cities and knew little about farming. Their crops failed because of plant disease (rust), floods and drought, and the farms were too small.
- By 1822 most had left their farms and moved to towns such as Grahamstown (Makhanda) and Port Elizabeth (Gqeberha) to work as traders and craftsmen.



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History Term 4 Summary + Test

- The Eastern Frontier of European Settlement
- The British at the Cape
- The Frontier Wars and the Zuurveld
- Chief Maqoma and Xhosa resistance
- Soldiers and officials
- Andries Stockenstrom
- The 1820 Settlers
- Abolition of slavery
- The Great Trek and inboekselings
- The Northern Frontier
- The Kora and Griqua
- The Southern Tswana world
- Missionaries and traders
- Robert Moffat at Kuruman



Geography Term 4 Summary + Test

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CASE STUDY: iSIMANGALISO WETLAND PARK (KwaZulu-Natal)

iSimangaliso Wetland Park is a UNESCO World Heritage Site located in KwaZulu-Natal.

Wildlife and activities at iSimangaliso:

- Humpback whales migrate northwards along the coast in winter.
- Leatherback turtles lay their eggs on the northern beaches of iSimangaliso from about November to February.
- Visitors can go on game drives, bird-watching, fishing, hiking and boat trips.

iSimangaliso is important because it protects a unique combination of wetlands, coral reefs, beaches and bush in one area.



UNIT 3: COMMUNITY CONSERVATION PROJECTS

Communities can be involved in conservation. This means local people help to protect and manage natural resources. Communities benefit from conservation through job creation and eco-tourism income.

Project	Where	What they do
Rainman Landcare Foundation	KwaZulu-Natal	Teaches people compost making, water harvesting (swales) and mulching to conserve water and soil.
Mahushe Shongwe Game Reserve	Mpumalanga (Mzinti community)	Community-managed game reserve; offers game drives; animals include kudu, waterbuck, impala, zebra, nyala, warthogs and vervet monkeys.

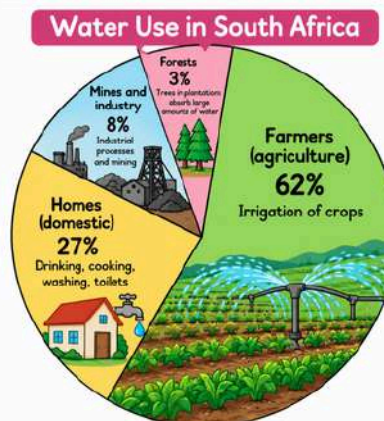


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SUB-TOPIC 3: WATER IN SOUTH AFRICA

UNIT 1: WHO USES SOUTH AFRICA'S WATER

South Africa's water is shared between different users. Farmers use the most water for irrigation.



UNIT 2: WATER AVAILABILITY IN SOUTH AFRICA

South Africa is a water-scarce country. This means we do not have enough water for all our needs.

Key facts about South Africa's water:

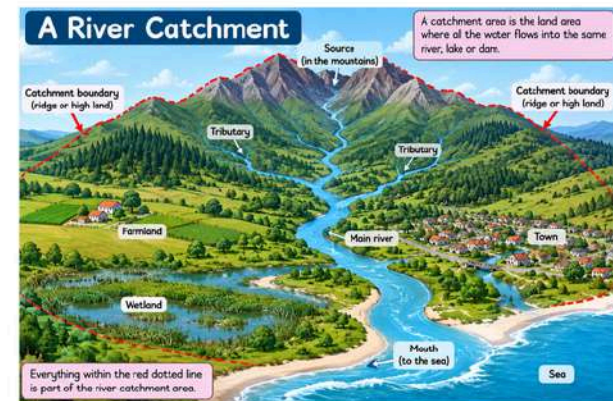
- Average rainfall in SA = 450 mm per year (the world average is 860 mm per year).
- About 21% of South Africa gets less than 200 mm of rain per year - this is very dry.
- About 88% of South African households had access to piped or tap water in 2024.
- South Africa imports water from Lesotho through the Lesotho Highlands Water Project.
- The Gariep Dam (on the Orange River) is South Africa's largest dam.



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A River Catchment



Ways people can care for catchment areas:

- Use natural fertilisers and pesticides instead of strong chemicals - less chance of river pollution.
- Keep natural vegetation next to river banks - this prevents soil from being washed into the river and stops river banks from collapsing.
- Stop dumping rubbish and waste into rivers - laws must be enforced to prevent this.
- Treat sewage and waste water before allowing it to flow back into rivers.

UNIT 4: DISAPPEARING WETLANDS – WHY CONSERVATION IS NECESSARY

Wetlands are areas where the land is covered by shallow water all or part of the time. They form an important part of river catchment areas.

Why wetlands are important:

- Wetlands filter water naturally - they act like huge sponges that clean the water.
- They absorb extra water after heavy rain and help to prevent floods.
- They provide habitat for unique plants and animals that can only survive in wetlands.

About our world: 50% of South Africa's wetlands have been destroyed because of farming activities and the growth of cities.



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Geography Term 4 Summary + Test

- Natural resources – types, uses and abuse
- Conservation and conservation areas in South Africa
- Marine Protected Areas
- iSimangaliso Wetland Park
- Community conservation projects
- Eco-tourism
- Water use and availability in South Africa
- Dams and water management
- River health and catchment areas
- Wetlands and wetland conservation
- Responsible agricultural, industrial and household water use
- Acid mine drainage



Natural Science Term 4 Summary + Test

UNIT 2: SOLAR ENERGY & LIFE ON EARTH

Key Words

Photosynthesis: Process by which green plants use light energy from the Sun to make food (glucose) from carbon dioxide and water.

Glucose: An energy-rich sugar that plants produce during photosynthesis - it is their food.

Herbivore: An animal that only eats plants (e.g. elephant, cow, snail).

Carnivore: An animal that eats other animals (e.g. lion, leopard, heron).

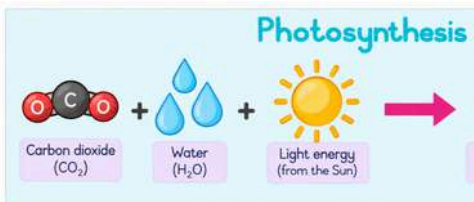
Omnivore: An animal that eats both plants and animals (e.g. baboon, humans).

Food chain: A sequence showing how energy passes from one living thing to another through feeding.

Plants Absorb Light from the Sun to Produce Food

All living things need energy to carry out life functions such as breathing, moving and reproducing. They get their energy from food. Green plants do not eat food - instead they make their own food using sunlight.

The process by which plants make food is called PHOTOSYNTHESIS.



Photosynthesis occurs in the green parts of plants (the leaves)

- Carbon dioxide (CO₂) from the air
- Light energy from the Sun
- Water from the soil

During photosynthesis:

- The leaves make glucose - an energy-rich sugar that is the food for plants.
- Oxygen is released into the air as a by-product.



Earth Spins on Its Axis - Rotation

Feature		Details
Movement		Earth spins (rotates) on its axis.
Direction		From west to east.
Time taken		24 hours = 1 day.
Tilt of axis		23,5° from the vertical — always tilted the same way.
Result		Causes day and night (side facing Sun = day; side facing away = night).

Earth Revolves Around the Sun - Revolution

Feature	Details
Movement	Earth travels in an orbit (path) around the Sun.
Direction	Anticlockwise (when viewed from above the North Pole).
Time taken	365¼ days = 1 year.
Axis tilt	The tilt of 23,5° does NOT change as Earth orbits — it always points the same direction.

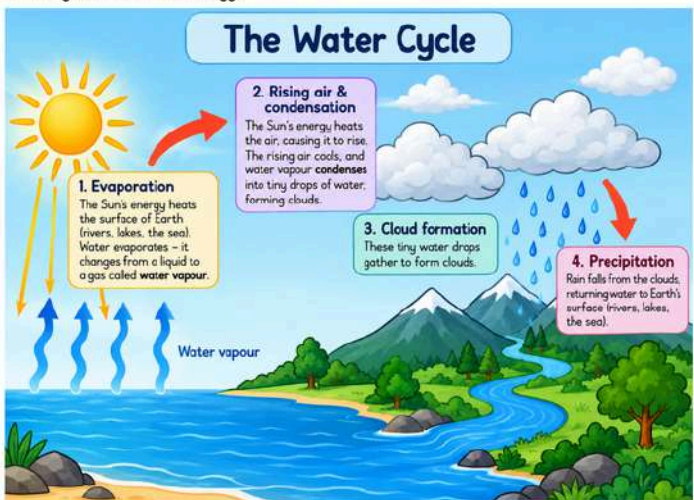


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The Water Cycle Depends on Energy from the Sun

Life on Earth needs water to survive. Water is recycled through the water cycle, which is driven by the Sun's heat energy.



Without the Sun's heat energy, evaporation would greatly decrease and Earth's surface would become extremely cold, disrupting the water cycle.

Key Concepts

- Plants absorb light energy from the Sun and use it in photosynthesis to make food (glucose).
- Photosynthesis: carbon dioxide + water + light energy → glucose + oxygen.
- All animals depend on plants for food - directly (herbivores) or indirectly (carnivores).
- Energy from the Sun passes along the food chain: Sun → plants → herbivores → carnivores.
- The Sun's energy warms Earth's water, air and land, making life possible.
- The water cycle (evaporation → condensation → precipitation) is driven by the Sun's heat energy.



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Natural Science Term 4 Summary + Test

- The Sun, Earth and the four seasons
- Rotation, revolution and Earth's tilted axis
- Direct and indirect solar energy
- Photosynthesis, food chains and the water cycle
- Fossil fuels and stored solar energy
- The Moon and its relationship with Earth
- Gravity and tides
- Spring and neap tides
- Shoreline ecosystems



Technology Term 4 Summary + Test

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UNIT 1: EMERGENCIES THAT LEAD TO REFUGEE SITUATIONS

KEY WORDS

Refugee: A person who has been forced to leave their country because they face serious danger, such as persecution, conflict or violence.

Persecuted: Tormented or treated unfairly.

Displaced: Caused to leave the place where they normally live.

What are Refugees?

Refugees are people who have escaped from their country to another country. They have done this because of an emergency situation that makes it too dangerous for them to stay in their homes.



Situations That Commonly Result in People Becoming Refugees

There are four main reasons why people may be forced to leave their homes or countries:

Cause	Explanation
1. Natural or Environmental Disasters	Floods, mud slides, drought, volcanoes, earthquakes and tsunamis. The land is devastated and covered in debris. It cannot be inhabited for many years. Food shortages can also cause people to leave.
2. War	War hurts people physically and mentally and destroys infrastructure including rail and roads, clean water. Rebel forces fight government forces, causing safety in surrounding countries.
3. Cultural or Religious Intolerance	Groups of people have been persecuted because of their beliefs. People in a country sometimes become persecuted and killed by the majority group, e.g., refugees in Nigeria.
4. Economics	In some countries, the economic situation is so bad that people are forced to leave their country to try to find a better life.



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UNIT 3: CLOTHING FOR PEOPLE IN SPECIALISED OCCUPATIONS

KEY WORDS

Textiles: Types of woven fabric.

Fire-retardant: Fabric that slows down or limits burning.

Water-repellent: Fabric that completely stops water coming through it.

Water-resistant: Fabric that keeps water out, unless the water is very very heavy.

Flammable: Something that burns easily.

Clothing for Fire Fighters

Technology makes it possible to design special textiles used in the clothing for fire fighters and by people involved in sea rescues. Fire fighters work in dangerous conditions. Their specially designed clothing must protect them from being burnt, from heat, and from breathing in smoke.

Technologists have identified and investigated the problems and invented materials that solve these problems. The first step in the process is to understand the problems and then design materials and building techniques to meet the needs.

Part of Clothing	Material / Features
Helmet	Protects the head from falling objects, hot water or sparks. Made from the same material used to make bulletproof vests.
Hood (fire-retardant)	Made from fire-retardant fabric to protect the face, neck and ears - areas not covered by the helmet or coat.
Jacket and Trousers	Made from fire-retardant material that protects the body from cuts, abrasions and burn injuries.
Gloves	Protect the hands from cuts and burns. Should not absorb liquid. At the same time, they must not be too thick or the fire fighters will not be able to do their job properly.
Boots	Specially made for protection. Toecaps and soles are made of steel. They are heat-resistant, chemical-resistant, oil-resistant, slip-resistant, flame-resistant and waterproof material.



MINI PRACTICAL ASSESSMENT TASK: Design and Make an Emergency Shelter

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SCENARIO: Natural disasters like droughts, floods and earthquakes, or political strife, or tragic local events like shack fires, may create the need for emergency shelters to provide temporary shelter for disaster victims. These disasters are usually temporary problems that last until the people involved are able to rebuild their lives. Emergency shelters are sometimes nothing more than army tents, and there is no infrastructure to support the refugees.

PAT | Unit 1: Indigenous Technology - Materials and Building Techniques

KEY WORDS

Nomads: People who move from place to place to find food.

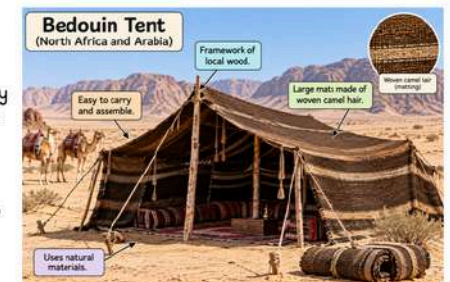
Indigenous people: The original people of a country.

The term 'indigenous people' refers to the original people of a country. We celebrate their knowledge and expertise. In South Africa, some indigenous people such as the San were nomads. Technologists have identified and investigated the materials and building techniques used by indigenous people and by people in specialised occupations.

Nomadic Shelters

When we look at the indigenous technology that nomads use, we find that they move to a different place and take their shelters with them, and then construct their shelters again.

- Bedouin tribes (vast deserts of North Africa and Arabia) have used similar materials and construction techniques for many centuries. They use a framework of local wood for the tent's structure and cover the frame with large mats made of woven camel hair. The tents are easy to carry, use natural materials and are easily assembled.



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Technology Term 4 Summary + Test

- Emergency situations and refugees
- Food and nutrition for emergencies
- Protective clothing for specialised occupations
- Waterproof, water-resistant and fire-retardant materials
- Indigenous and modern emergency shelters
- Materials and building techniques
- The Mini PAT: Designing and Making an Emergency Shelter
- Term 3 revision: magnetism, electromagnets, circuits, mechanisms and structures



EMS Term 4 Summary + Test

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UNIT 2: INPUTS & OUTPUTS OF PRODUCTION

INPUTS: The four factors of production

Factor	Description	Examples	Image
Natural resources / Land	Resources found in nature that are used in production	Water, soil, minerals, forests, animals	
Labour	The physical and mental effort of people used in production	Workers, farmers, teachers, doctors	
Capital	Man-made resources used to produce goods and services	Machinery, tools, factories, equipment, money	
Entrepreneurs	People who organise the other factors and take risks to start businesses	Business owners, innovators	

OUTPUTS: What is produced

Goods	Services
Tangible (can be touched and seen).	Non-tangible (cannot be touched - only experienced).
Physical products that are made or grown.	Actions or activities.
Examples: food, cars, clothing, furniture, books.	Examples: haircuts, transport.

The production process

INPUTS (natural resources, labour, capital, entrepreneur) → PROCESSES (change the inputs, e.g. mixing, baking, assembling) → OUTPUTS (finished goods, services)



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UNIT 7: TECHNOLOGY IN PRODUCTION

Technology refers to any machinery, equipment or tools that have been developed using scientific knowledge to solve problems or improve production.

Advantages of Technology	Disadvantages of Technology
Production is faster and more efficient.	Technology is expensive to purchase and install.
More goods can be produced in less time.	Workers can lose their jobs (unemployment increases).
Fewer errors and higher quality products.	Technology is expensive to maintain and repair.
Can work 24 hours a day without breaks.	Requires skilled technicians to operate and maintain.
Reduces physical demands on workers.	Can have negative environmental effects.

KEY WORDS

Technology: Any machinery, equipment or tools developed using scientific knowledge to improve production.



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UNIT 2: BANKS

Banks are businesses that act as middlemen between people who want to save money (and people who want to borrow money). Banks keep money safe for consumers and producers in the economy.

A brief history of banking:

2000 BC - Mesopotamia Temples and palaces stored grain and precious metals. People could deposit and borrow, making them the first "banks".	Middle Ages Goldsmiths began storing gold coin receipts and started lending gold to others.
1793 - South Africa The first South African bank, Lombard Bank, was established as a government-owned institution.	Today Commercial and investment banks offer a wide range of financial products and services.

Types of banks in South Africa:

Commercial Banks	Investment Banks
Act as middlemen between ordinary savers and borrowers.	Invest large sums of money on behalf of clients and businesses.
SA's top 4: ABSA, Standard Bank, FNB, Nedbank.	Examples: Standard Bank, Rand Merchant Bank, Investec.
Offer savings accounts, loans and everyday banking services.	Focus on corporate finance and large-scale investments.

NB: Some big banks do both



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EMS Term 4 Summary + Test

The Production Process

- Stages, inputs and outputs of production
- Factors of production and goods & services
- Sustainable use of resources
- Economic growth and productivity
- Technology in production

Savings & Financial Literacy

- Personal savings and investing
- Importance of saving
- Banks and banking services
- Savings accounts and stokvels
- Financial institutions, insurance and pension funds
- Organisations supporting entrepreneurs

