

Grades 10–12

CAPS-approved Catalogue



Welcome

At Pearson, we believe that learner performance can be improved when both teachers and learners are equipped with quality learning resources filled with relevant and engaging content.

We are proud to present our Grades 10–12 CAPS-approved catalogue of titles from Maskew Miller Longman, Heinemann and Pearson. Our Grade 10–12 portfolio brings you the widest range of CAPS-approved titles in South Africa.

We aim to support learners along their learning journey as they prepare for their final matric exams and acquire the skills and knowledge to help them progress beyond school.

To support you in the classroom, we continue our strong tradition of excellence in teacher training. These workshops are run across the country by our dedicated and passionate team of trainers whom are trained teachers. If you require more information about our workshops, please contact your local Pearson representative.

Pearson South Africa

Learn more at **za.pearson.com**

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Key to symbols



This title is also available in eBook format.



Features one or more digital resources, e.g. CD, DVD, Online Support.



Resources with audio components.



This title is also available in Afrikaans.



Additional information.

About Pearson

At Pearson, home of Maskew Miller Longman and Heinemann, we're here to help people make progress in their lives through learning.

We believe that quality education is the key to shaping a better tomorrow. By enabling better learning and helping to remove barriers to a quality education, we empower learners to build a better life for themselves and those around them.

That's why, at Pearson, we provide trusted CAPS-approved textbooks, digital and supplementary resources, services and support, and professional development courses, to make learning more engaging, effective and accessible.

We create content in all 11 official languages and have a footprint in all 9 provinces. Our unique insight and local expertise comes from our long

history of working closely with the Department of Education, teachers, learners, researchers, authors and thought leaders.

We have a clear vision – to use learning to empower human progress; from reading your first book as a child to starting your first job, continually learning to improve your life.

We are committed to be your trusted partner in education to shape the future of learning and make a positive impact.

Every day all over South Africa, our products and services help learning flourish. Because wherever learning flourishes, so do people.

Learn more at **za.pearson.com**

Pearson South Africa is a B-BBEE Level 2 contributor.



Our commitment to learning

The challenge for education is not just about providing access, but also ensuring progress.

For Pearson, providing great products and services is just the beginning. It's important for us to know that they are working. Everything we do is driven by its measurable impact on learning outcomes.

We call this efficacy.

By focusing on the efficacy of our products and services, we can see exactly how effective they are at producing successful outcomes for learners. This involves continually measuring, assessing, and improving everything we do and putting the learner at the heart of our learning solutions.

We work with educators and learners to continually improve our products and services, ensuring they have the most positive impact on learning. In this way, we're able to deliver better education to more people – whatever, whenever, wherever, and however they choose.

Learn more at za.pearson.com

We believe that effective teachers are fundamental to the success of a learner's journey and part of what makes a good teacher great is their desire to continually learn and improve.

To support teachers in the classroom, we continue our strong tradition of excellence in teacher training. These teacher-training workshops are run across the country by our dedicated and passionate team of trainers whom are trained teachers.

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“

We believe that quality education is the key to shaping a better tomorrow. By enabling better learning and helping to remove barriers to a quality education, we empower learners to build a better life for themselves and those around them.

”

Our strategic partners

Our dedication to creating positive social impact shapes everything we do, from our products and strategies to the way we engage with our millions of learners, partners, and communities around the world.

Sphere Holdings (Pty) Ltd

Sphere is committed to positioning Pearson South Africa, not just as an educational supplier, but to partner with government as a responsible citizen and leverage Pearson's capabilities to address some of these seemingly intractable challenges in the country; literacy and unemployment.

We are fortunate to have found B-BBEE partners who share our passion and commitment to education and will enable us to continue to positively impact many thousands of learners across South Africa.

Sphere Holdings is excited to be part of an enterprise whose key focus is on improving knowledge and education in South Africa. The relationship with Pearson South Africa aligns this imperative with their passion for delivering meaningful interventions for change.

MET is a SACE accredited provider and works to support the Department of Basic Education and its policies by focusing on building capacity within the education system to enable and support the meaningful implementation of the Department of Basic Education's learning-centred, participatory, problem-solving approach to teaching and learning.

In the past two years, the team's work, led by Trust Director Dr Veronique Genniker and Research and Development Manager Dr Nadeen Moolla, has received three global awards, and are being recognised locally and internationally. The Department of Basic Education issued a letter acknowledging MET as a valuable partner and endorsed the importance of its work and valuable assistance in providing quality professional development and support to deep rural schools.

Marang Education Trust

We work to identify and remove barriers to education for those most in need to enable learners to reach their full potential.

Through research, engagement and development at the coalface of education, the school and the classroom, the Marang Education Trust (MET) in partnership with Pearson South Africa, has focused on best practice as an approach to improving the quality of teaching, learning and school management in South Africa.

“

We look forward to working with Pearson to adapt their unparalleled global education expertise, content and services to meet the needs of South African learners, teachers, education departments and schools.

”

**Marang Denalane, Sphere director
and Pearson SA board member**



Our Brands

Platinum

Simply Superior!

Platinum is the perfect partner to deliver exceptional results. The series has superior illustrations for clearer understanding and a diverse range of activities for practice, along with excellent teacher support.

- **Superior** content written by expert authors.
- **Superior** CAPS curriculum coverage.
- **Superior** illustrations and activities improve results and motivate learners.
- **Superior** teacher support saves time and makes teaching easy.
- **Superior quality = exam success.**



Platinum components include Learner's Books, Teacher's Guides, Workbooks, and **FREE Control Test Books and a Question Bank CD** (grade-specific).



“

I have found Platinum to be user-friendly for the learner as well as the teacher. I like that there are plenty of examples, relevant and challenging activities, and exam questions and answers. The learners find the colourful pictures and examples to reflect everyday life, and the content easy to follow. I have experienced a great improvement in the results of my learners.

”

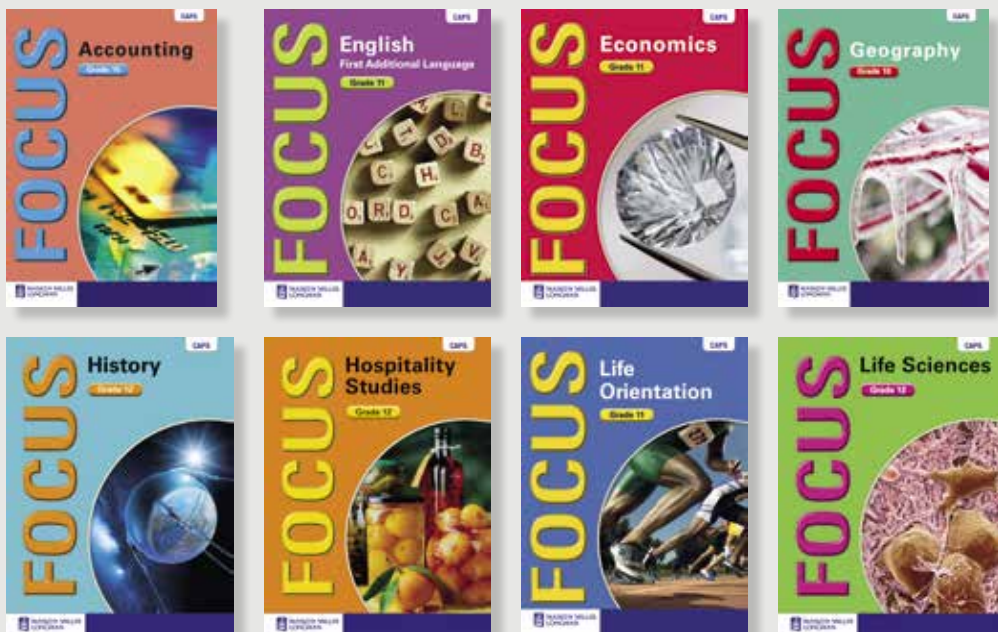
**Buyisiwe Nkomo, teacher,
Magadla Senior Secondary School,
Eastern Cape**

FOCUS

Focus on exam success!

Focus has been carefully developed and tested in classrooms to deliver successful teaching and learning support. The series develops learners' skills and grows their exam confidence. It has a variety of stimulating activities, uses reader-friendly language and provides balanced curriculum coverage.

- F**ully CAPS-compliant.
- O**pportunities for exam practice and assessment.
- C**omplete programme of assessment provided.
- U**sed and tested in schools throughout South Africa.
- S**upports and engages learners for success.



The *Focus* series is also available in Afrikaans as *Verken*



Focus components include Learner's Books, Teacher's Guides, **FREE Exam Practice Books** and a **FREE Question Bank CD** (grade-specific).

“

Learners like **Focus** as the content is easier to understand and a summary of the content is provided after each topic. As a teacher, I like the additional activities and answers that assist me in my teaching. I have seen an improvement of results from 80% to 90% in my class.

”

Mr TA Tlali, teacher,
Reikaeletse Secondary School,
Free State





Spot On is spot on!

Spot On contains everything a learner needs in one book. This series is clearly structured and easy to use, making learning enjoyable and teaching a pleasure, while also improving results.

- Clearly written and accessible content.
- Step-by-step approach to concept development.
- Structured to encourage classroom interaction.
- Wide range of activities for mastering different skills.
- Complete CAPS curriculum coverage.
- Comprehensive programme of assessment.



The **Spot On** series is also available in Afrikaans as **Kollig Op**



Spot On components include Learner's Books, Teacher's Guides and a **FREE Teacher Resource CD** (grade-specific).

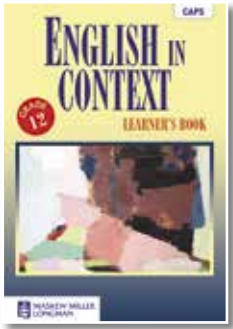
“

Spot On makes my work as a teacher very easy. This series contains clear diagrammatic illustrations relevant to the CAPS programme, and lots of exercises I can select from for learners. It has many illustrations and pictures that make learners appreciate what is being taught. *Spot On* will surely improve the pass rate of my learners.

”

**G Usifo, teacher,
Vine Christian School,
Western Cape**





ENGLISH IN CONTEXT

English in Context has rich and detailed texts and activities for the acquisition of comprehensive language skills. This best-selling home language course has been revised to be fully CAPS-compliant.

English in Context key features:

- A wide range of literary and non-literary texts to develop reading proficiency.
- Activities to promote writing practice, develop critical listening skills and extend vocabulary use.
- Opportunities to practise effective listening and speaking strategies and express ideas and opinions.
- Integration of language and literacy skills across other subjects.
- The Teacher's Guide provides planning assistance, teaching guidelines and answers.
- The **FREE** Question Bank CD provides a rich source of questions for assessment.



AFRIKAANS SONDER GRENSE

Afrikaans sonder grense is 'n volledige taalreeks beskikbaar vir Afrikaans Eerste Addisionele Taal en Tweede Addisionele Taal. Dié taalreeks het 'n multikulturele aanslag waarmee alle leerders in Suid-Afrika kan identifiseer. **Afrikaans sonder grense** voldoen aan al die vereistes van die KABV vir Graad 10, 11 en 12, en komponente sluit Leerderboeke, Onderwysersgidse, Kontroletoeetsboeke en 'n Eksamenbank-CD in.

Afrikaans sonder grense bied die volgende:

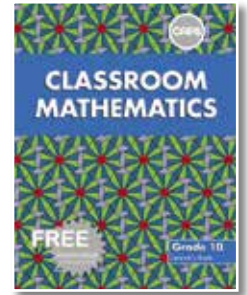
- 'n Verskeidenheid interessante leestekste prikkel die verbeelding.
- Sterk klem word op begrips- en leesvaardighede geplaas.
- Taalstrukture word in konteks toegepas.
- Die Onderwysersgidse bevat voorstelle vir onderrigstrategieë en volledige antwoorde.

Classroom Mathematics

Classroom Mathematics is trusted by teachers to guarantee results. This course is research-based to ensure the best methodology. Providing comprehensive coverage of the CAPS curriculum, it has a strong focus on skills building, problem-solving and concepts mastery.

Classroom Mathematics key features:

- Step-by-step guidance with detailed explanations.
- Strong focus on skills building, problem-solving, and concepts mastery.
- Many practice opportunities with graded exercises.
- The Learner's Book includes a **FREE** Practice Book.
- The Teacher's Guide contains detailed teaching guidelines and answers.



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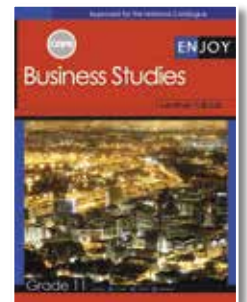
Also available
in Afrikaans as
**Wiskunde vir
die Klaskamer**



The **Enjoy** series is carefully scaffolded to meet the growing needs of an economically empowered South Africa. These books are CAPS-aligned, with activities to enhance both an understanding and application of business and economic concepts.

Enjoy key features:

- Content is fully CAPS-compliant.
- Written in clear and accessible language.
- Systematic development of skills for easy grasp of concepts.
- Case studies and examples for application of knowledge in real-world situations.
- Wide range of activities for practising knowledge and skills learnt.
- The Teacher's Guide contains extensive teaching guidelines and model answers to activities.



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Also available
in Afrikaans
as **Geniet**

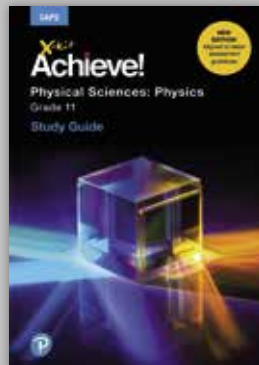
X-kit Achieve!

CAPS
aligned

Help learners approach their exams with confidence

STUDY GUIDES

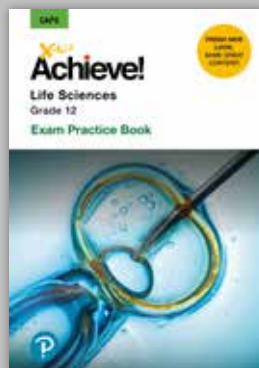
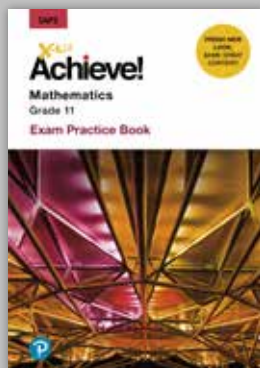
GRADE 8–12



- ★ Step-by-step explanations and worked examples.
- ★ Annotated diagrams and illustrated concepts.
- ★ Graded activities and answers.

EXAM PRACTICE BOOKS

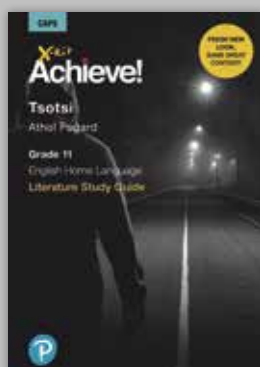
GRADE 10–12



- ★ Follows National Examination Guidelines.
- ★ CAPS-compliant exam papers.
- ★ Complete memos with mark allocations.

LITERATURE STUDY GUIDES

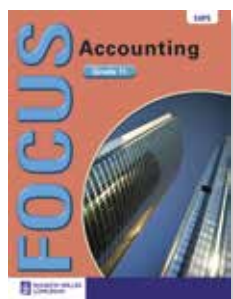
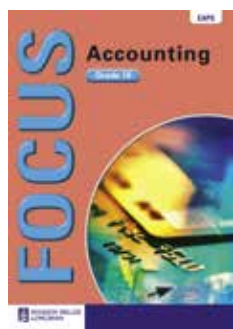
GRADE 10–12



- ★ Themes, plots and characters thoroughly explained.
- ★ Diagrams summarise important content.
- ★ Thought-provoking exercises and answers.



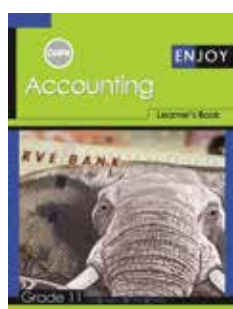
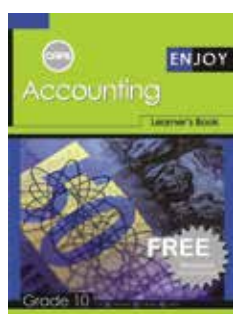
Commerce



Focus Accounting



- The content has been carefully structured and written to ensure progression of learning term-by-term.
- Each unit starts with a list of key questions that the learner should be able to answer when they have completed the unit.
- A wide range of activities develops learners' ability to apply skills.
- Each chapter includes exam practice questions and summaries that can be used for consolidation and revision.
- **Focus** Accounting Workbook is available.



Enjoy Accounting



- The term and weeks of the school year are indicated at the top of the page for easy planning.
- A summary at the end of each module enables learners to check their understanding.
- **Enjoy** Accounting Workbook available.

The aim of each unit is clearly stated to maintain focused learning

A wide range of activities test learners' knowledge and ability to apply new skills

Term 2 Weeks 1-3

Unit 5
Analysis and interpretation of the Financial Statements of partnerships

The aim of this unit
This unit explains how to identify and solve problems that affect partnerships through analysing and interpreting Financial Statements.

1. Interpretation of Financial Statements

From preparing the Financial Statements you must have become aware that these statements are prepared with the purpose to provide information that enables the partners and other stakeholders to assess the performance of the business and to make decisions based on the information provided by these statements.

When reading the Financial Statements, the readers will be interested in the following:

- Is the business profitable? How well do they control their expenses and did they make a good profit?
- Is the business solvent? Can the business pay all its debts?
- Is the business liquid? Can the business pay its short-term debts immediately?
- Is the business earning a good return for the partners?

The business must also be a going concern (GACC principle) and must make sure that the business will exist in the foreseeable future. The partners must also look at the sustainability of the business. The following must be assessed:

- Does the business have good internal control of their assets, are their expenses well controlled, as well as their income?
- Does management look after the environment and the community and does the local community support the business?

The ratios learnt in Grade 10 in Module 4 Unit 5 about sole traders still apply. The following were covered in Grade 10:

- Profitability.
- Solvency.
- Liquidity.
- The debt equity.
- Return on Owner's Equity.

These ratios still apply in Grade 11 and will be revised. The only differences are that in a partnership there is more than one capital and current accounts.

Financial accounting Managerial accounting Managing resources

172 Module 2: Financial accounting of partnerships

Term 2 Weeks 1-3

The additional ratios that are needed are:

- The total amount earned by each partner.
- Return on each partner's equity.
- Percentage return on each partner's investment.

Activity 1 10 minutes

When analysing Financial Statements you must be able to identify where the different information needed will be found in the Financial Statements. Where will you find the following information in the Financial Statements of a partnership?

No.	Information	Found in
1.	Gross profit	
2.	Amount invested by each partner	
3.	Operating expenses	
4.	Current liabilities	
5.	Net profit	
6.	Current assets	
7.	Trading stock	
8.	Total assets	
9.	Non-current assets	
10.	Operating profit	
11.	Non-current liabilities	
12.	Drawings of each partner	

2. Knowledge of analysis and interpretation of financial indicators

You must have knowledge of the following financial indicators in the context of the sole trader (Grade 10) and partnerships (Grade 11).

Profitability and operating efficiency indicators	Percentage gross profit on cost of sales Percentage gross profit on sales (turnover) Percentage operating expenses on sales Percentage net profit on sales Percentage operating profit on sales
Liquidity indicators	• Net current assets (net working capital) • Current ratio • Acid-test ratio • Rate of stock turnover • Period for which enough stock is on hand • Debtors average collection period • Creditors average payment period

Financial accounting Managerial accounting Managing resources

Unit 5: Analysis and interpretation of the Financial Statements of partnerships 173

Focus Economics



- Each topic starts with a clear summary of what will be covered in the chapter. A summary at the end of each chapter recaps the key concepts taught and can be used as a quick revision guide.
- Practice questions enable learners to test themselves on the content that has been covered and build up confidence with exam-style questions.
- The relevant assessments tasks are built in throughout the course at the correct time in the term.

Keyword feature helps learners understand new terms

Simple explanations help learners understand concepts

Clear, labelled illustrations support learning

Activity 4: Show the role of participants in the economy

- Draw a circular flow diagram of the economy to show how the government interacts with households and business enterprises. Label the money and real flows in this diagram. (12)
- As an individual, you are also an economic participant. You form part of households and as such you interact with business enterprises and with the government. In this activity you will explore more fully how individual consumers, like you, interact with the government at the economy as a whole. Consider one of the following tasks:
 - Applying for a drivers licence.
 - Paying income tax.
 - Applying for an identity document.
 - Applying for a passport.
- Find out what you would need to do in order to complete this task (for example, how would you go about applying for a drivers licence?). Where would you go? What documents do you need? What fees do you need to complete? How much do you have to pay? (16)
- If possible, get copies of the forms that need to be completed and bring them to class.
- Prepare a 3-minute oral report back to tell other learners in your class what you have discovered about the government to complete this task. (17)

Circular flow in the foreign sector

Our economy is called an **open economy** because it trades with other countries in the world. A **closed economy** does not interact with the economy of any other country. Global trade is becoming more and more important among the nations of the world. Foreign trade has a great effect on a country's economic growth and development (see Figure 3.1). Let us see what happens to our market when we add the foreign trade component.

Key words

Open economy – refers to a country's trade with other countries.

Closed economy – refers to a country that is not connected with the economy of other countries.

Figure 3.1 Circular flow of money and goods, including the foreign sector

Activity 5: Use a circular flow diagram

Use the circular flow diagram you have already learnt about to answer the following questions:

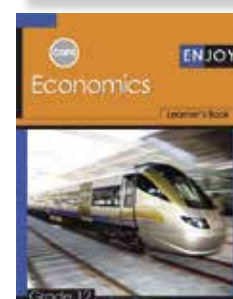
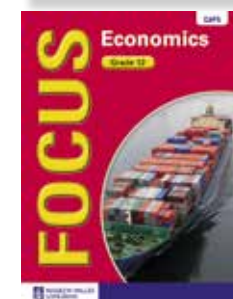
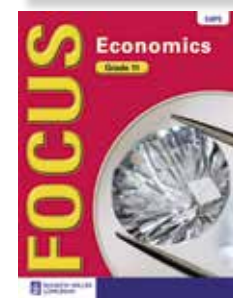
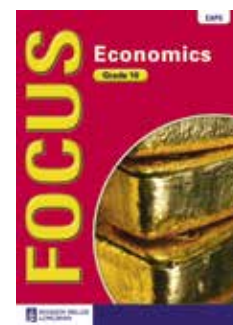
- Why is it important that households buy lots of different goods and services? Should they not spend less money and only buy the basics? (4)
- What are the advantages of specialisation (using more machines) and what are the disadvantages? (8)
- Why do you think it is important that people save more money in banks? (4)
- It is said that "to have money is to have money". Explain this saying by applying it to businesses taking loans from financial institutions. (8)

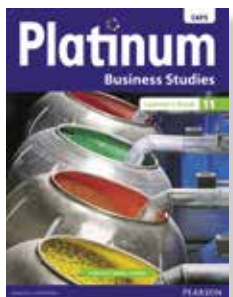
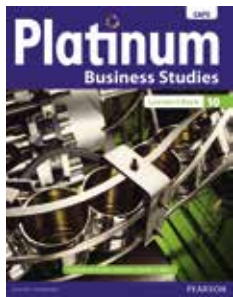
Focus Economics Grade 10 Learner's Book

Enjoy Economics



- Module opener pages introduce learners to key concepts.
- Assessment questions at the end of each topic provide opportunities for informal assessment and tests.
- Note features provide additional facts to support understanding and examination tips are included throughout to help learners prepare for the final exams.





Platinum Business Studies



- A clear and predictable structure promotes learning concepts in context.
- Concise summaries at the end of each chapter help with revision.
- Exam practice questions at the end of each chapter provide opportunities for assessment.
- Varied activities aimed at different cognitive levels help consolidate learners' knowledge.
- Difficult and new words are defined to build learners' vocabulary.
- Examples of South African businesses throughout the content promote inclusivity and indigenous knowledge.
- A study timetable and examination writing tips prepare learners for writing their final exam.
- Detailed and easy-to-understand, full-colour mind maps and graphics enhance learning.

Simple explanations help learners understand and remember

Full-colour diagrams and photographs support the learning process

UNIT 1

1 The three business environments related to the three economic sectors

In Grade 10 you learnt about each of the business sectors and their classification. In Grade 11 the focus was on the **interrelatedness** and **interdependence** of the three business sectors. In Grade 12 you need to be able to describe the three business environments related to the three economic sectors, and the extent to which a business can control these environments.

9.1 The three economic sectors

In South Africa we classify our businesses into three main economic sectors. This classification is determined by the nature of the business and the types of products or services provided to the consumer.

KEY WORDS

Interrelated – how or how many businesses, industries or sectors that are connected.
Interdependence – how businesses, industries or sectors may rely on each other to achieve their best outputs.

ACTIVITY 1: IDENTIFY DIFFERENT BUSINESS SECTORS

1. Identify the three business sectors and provide an example of each one, (10).
 2. Study the four pictures below and identify into which sector they fall. Provide a reason for your answer. (12)

	Picture A	Picture B	Picture C	Picture D
Economic sector				
Reason				

9.1.1 Primary sector

The primary sector deals with raw materials and natural resources. Goods are sold in their raw state and the processing and packaging does not change the product in any way. These industries extract natural resources to sell to consumers.

Examples of the primary sector are: mining, fishing, agriculture, forestry, and farming.

9.1.2 Secondary sector

The secondary sector manufactures and processes raw materials into final goods. All manufacturing, processing, construction and engineering fit into the secondary sector industry. The final goods are sold to the consumer.

Examples of the secondary sector are: vehicle manufacturing, shipbuilding, clothing and food processing.

9.1.3 Tertiary sector

The tertiary sector is also known as the services industry and includes all industries that offer services to other businesses and consumers. The services may include distribution, transportation, banking, insurance, retail, entertainment and tourism. Examples of the tertiary sector are: retail outlets (shops), transport companies, electricity, doctors, and consultants (IT, project managers, financial managers).

All the services are intangible and although they function in the micro-environment, they are influenced by the market and macro environments. For example, a factory is impacted by telecommunications and electricity. Businesses need finance to operate their business and transport to get their products to the consumer.

9.2 The three business environments

Platinum Business Studies Grade 12 Learner's Book

Focus Business Studies



- Topics and units structure the content into manageable lengths according to CAPS.
- Contemporary case studies allow learners to apply Business Studies knowledge in real-world situations.
- Summaries at the end of each term support the consolidation of knowledge.
- Exam practice questions at the end of each topic provide opportunities for assessment.

Key questions help learners maintain focused learning

Keywords are highlighted and defined to help learners understand new terms

Fast fact boxes provide additional information

Key questions

- What are problem-solving skills?
- What are the basic steps in problem-solving?
- How can one acquire problem-solving skills?

Fast fact

A problem is defined as the desire to reach a definite goal.

Unit 1: Acquiring advanced problem-solving skills

1.1 Problem-solving skills

Problem solving is a mental process that involves:

- problem finding, which is the ability to identify the problem
- problem shaping, which is the ability to break-down the problem in such a way that a clear solution can be found.

1.2. The steps in problem-solving

All problem-solving follows at least six basic steps, namely:

- defining the problem
- generating alternatives
- evaluating alternatives
- selecting the best option
- implementing the solution
- monitoring and evaluating the success of the solution.

The problem-solving process
The steps taken to solve a problem:

```

graph TD
    A[Define the problem] --> B[Identify alternatives]
    B --> C[Evaluate alternatives]
    C --> D[Choose the best alternative]
    D --> E[Implement the decision]
    E --> F[Evaluate the decision]
    F --> A
    B --> G[Identify the problem. Gather as much information as possible to establish the cause of the problem.]
    C --> H[Look at the different possible solutions and the advantages and disadvantages of each.]
    D --> I[Identify which solution will be the best for the problem.]
    E --> J[Carry out the solution.]
    F --> K[Evaluate the result. Assess whether the problem has been solved partially or entirely.]
    K --> L[If not, re-evaluate the situation and start at the beginning of the process again.]
    L --> B
  
```

In between these steps, a number of skills can facilitate the problem-solving process. Testing the alternatives, or doing research before implementing the chosen solution can help to solve a problem.

1.3 How to acquire advanced problem-solving skills

The table below explains how to actively develop advanced problem-solving skills.

What must be done?	How can it be done?
1. Define the task clearly.	What exactly is required?
2. Set priorities.	What must be done first? What can be left until later?
3. Develop an appropriate strategy.	What steps must you take to address the task?
4. Use experience from similar problems.	What do you already know or what have you already done as a starting place on how to approach the current problem?
5. Set targets.	What steps must you accomplish by when? How will you know you have achieved each target? How will you measure your progress?
6. Develop an action plan.	List all the steps necessary to achieve each target. Identify the best order for all the steps and a deadline for each.
7. Get started.	Start early on the tasks that you can begin straight away. Keep yourself focused and motivated.
8. Monitor your performance against targets and indicators.	Check regularly whether you are meeting your targets and revise your action plan if needed.
9. Evaluate your performance.	How well did you achieve your targets? What did you learn that will be of use to you for future problems and tasks?

Key words

strategy – a formalised plan to show how a business is going to implement specific actions

action plan – a plan which shows all the steps to be performed to reach a certain specified goal; the action plan shows timeframes and the person responsible

lateral thinking – the ability to think creatively, or “outside the box”

market share – the size of the consumer market captured/gained by the business

Fast fact

People who spend more time at the start to work out exactly what a task involves have a better chance of success.

The need for creative thinking

Problems within a business environment must be solved as soon as possible. Constant changes in the market impact on business operations and businesses must adapt to these quickly and creatively. There is always space for improving systems to increase productivity, save on costs and increase market share. Creative and lateral thinking can help to solve problems successfully.

Routine versus creative thinking

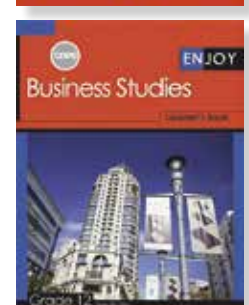
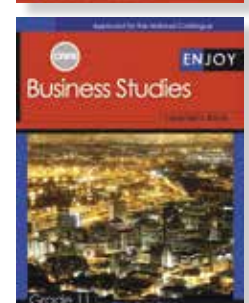
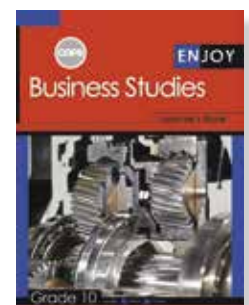
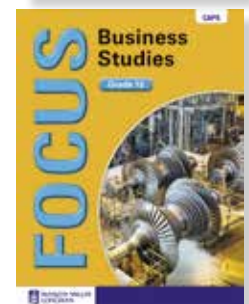
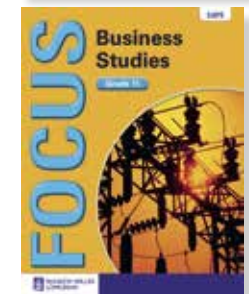
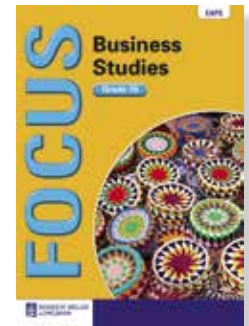
Although businesses need creative thinking to remain competitive, routine thinking is required for many business processes. Logical responses are needed to solve routine problems. Routine problems in a business are a result of human error, for example, a supplier that is not paid on time or stock that is not delivered on time. To solve these types of problems, the business must just check the policy, check why it was not implemented, and ensure that the necessary control

Focus Business Studies Grade 12 Learner's Book

Enjoy Business Studies



- The aim of each unit is clearly stated at the start of each unit to maintain focused learning.
- A wide range of activities test learners' knowledge and ability to apply new skills.
- **Note** features provide additional facts to support understanding and **examination tips** are included throughout to help learners prepare for the final exams.



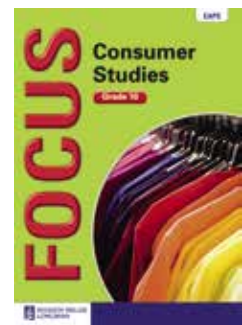
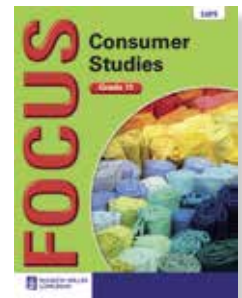
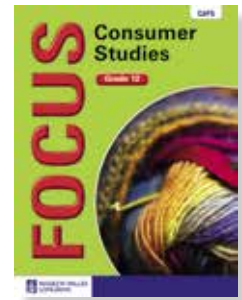
A circular mosaic composed of numerous small, square tiles in various shades of blue, purple, yellow, and pink. The tiles are arranged in concentric rings around a central circular stone with a mottled blue and white pattern. The word "Humanities" is overlaid on the upper left portion of the mosaic.

Humanities

Focus Consumer Studies



- Each topic starts with a clear summary of what will be covered in the chapter.
- Each unit starts with a list of key questions that the learner should be able to answer when they have completed the unit.
- A summary at the end of each chapter recaps the key concepts taught and can be used as a quick revision guide.
- Practice questions enable learners to test themselves on the content that has been covered and build up confidence with exam-style questions.
- The relevant assessments tasks are built in throughout the course at the correct time in the term.



Fact focus boxes
provide additional
information

Activities develop
learners' ability to
apply skills taught

Keyword feature helps
learners understand
new terms

Fact focus
The World Health Organisation (WHO) predicts that total deaths from diabetes will rise by more than 50% in the next ten years, and by the year 2030 diabetes will become the seventh-largest cause of death in the world.
Source: www.who.int/features/infocus/diabetes/facts/en/index.html (accessed May 2012)

12 Diabetes
Description
Diabetes is a disease in which the body does not produce insulin or is unable to use it properly. Insulin is needed to turn sugar into energy. Without insulin sugar builds up in the blood, causing high blood sugar levels.
Type 1 diabetes
Causes of type 1 diabetes
• Type 1 diabetes occurs in children and young adults when the pancreas cells are damaged or unable to make insulin.
• Symptoms include excessive weight loss in spite of eating large amounts of food, excessive thirst or hunger, the need to urinate often, low energy levels and digestive problems.
• Unless treated, diabetes can lead to blindness, kidney disease, nerve disease and coronary heart diseases, including heart attacks and strokes.

Fact focus
A new development is for diabetics to wear an insulin pump. With an insulin pump, the insulin reservoir is outside the body and tiny amounts of insulin are injected every few minutes automatically, according to a pre-set programme. The patient always carries the pump and there is enough insulin in the reservoir so that the patient will not run out during the day.
An insulin pump can help type 1 diabetics to maintain the correct blood glucose level.

Management of type 1 diabetes
• Treatment involves regular insulin injections, a diabetic diet and sufficient exercise.
• Without daily insulin injections, a person with type 1 diabetes may die from the disease.
• All type 1 diabetics need to see a dietitian so that they can practise healthy eating patterns.
• Healthy eating means eating lean protein (fish, poultry and legumes) and lots of fibre-rich foods such as whole grains, fruit and vegetables. It also means limiting foods and snacks that are high in saturated fats and cholesterol.

Fact focus
Weight gain is a potential side effect of insulin therapy in type 1 diabetes patients. These patients should weigh themselves at least once a week and adjust their kilojoule intake to lose the weight they gain immediately.

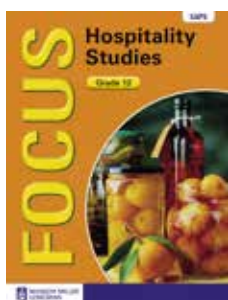
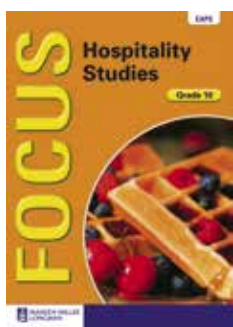
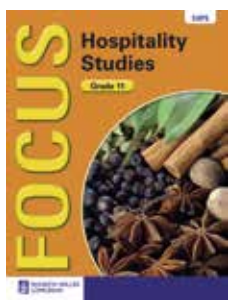
Key words
soluble fibre: fibre that dissolves to form a gel in water. It slows the entry of sugar into the bloodstream.
insoluble fibre: fibre that the body cannot digest as it does not dissolve in water, but rather binds and holds water as it passes through the body.

Prevention and management of type 2 diabetes
• Maintaining an ideal body weight and having an active lifestyle may prevent type 2 diabetes.
• A doctor or dietitian usually prescribes changes in eating habits and exercise programmes. Type 2 diabetics may need medicine to control blood glucose levels.
• Regular exercise helps to control weight and helps the body to use insulin more effectively, which controls blood glucose levels.
• Eat a minimum of three meals daily. Ideally, meals should be more or less the same size and evenly spaced during the day.
• About 60 per cent of the total kilojoules for the day should come from starchy foods, such as bread, porridge and pasta with a low glycaemic index (GI) that take a longer time to break down and release glucose than sugars. The slower process helps to control diabetics' blood glucose level.
• Eat both soluble and insoluble fibre to improve carbohydrate metabolism and lower the total cholesterol level. Fruit, vegetables and oats contain **soluble fibre**, while **insoluble fibre** is found mainly in cereals.
• Reduce protein intake to avoid unnecessary stress on the kidneys.
• Always use fat sparingly.

Activity 1: Formulate guidelines to prevent diabetes
Type 2 diabetes is a lifestyle disease that causes an alarming number of deaths each year. Think about this statement and then formulate five guidelines for how people can prevent the onset of type 2 diabetes.

1.3 Coronary heart disease
Coronary heart diseases are serious health conditions related to high saturated fat, trans fat and cholesterol intakes. We can protect ourselves from heart attacks and other heart conditions by making sensible food choices.

Focus Consumer Studies Grade 12 Learner's Book



Focus Hospitality Studies



- The content has been carefully structured and written to ensure progression of learning term-by-term.
- Each unit starts with a list of key questions that the learner should be able to answer when they have completed the unit.
- A wide range of activities develops learners' ability to apply skills.
- A summary at the end of each chapter recaps the key concepts taught and can be used as a quick revision guide.
- Each chapter includes exam practice questions and summaries that can be used for consolidation and revision.

Chef says boxes provide helpful tips

Key questions help learners maintain focused learning

Activities provide opportunities for consolidation and practice

Unit 3: Key questions

- How should breads be presented?
- What are the quality characteristics of bread?

Unit 3: Presentation, quality and successful products

3.1 Presentation of bread

Fresh breads are popular and relatively inexpensive. The many different shapes and forms of different breads often result in it being used as a display or focal point on a buffet table. Individual rolls are often served to guests at the beginning of a meal. Serve bread within eight hours after baking. For longer storage, wrap cool breads in moisture-proof wrapping to prevent them from becoming stale. Wrapping and freezing maintains the quality of the product for a longer period.

3.2 Quality characteristics of yeast products

Good quality and well-prepared breads and other yeast products should have the following characteristics:

- They should be golden brown with a crispy crust and have a slight spring when pressed at the sides.
- They should have a good volume, determined by the type of product.
- They should sound hollow when tapped at the bottom.

- The **crusts** should be fine and the bread should have an even texture.
- Bread should be rounded on top without any coarse cracks.
- Bread should have a symmetrical shape with closed seams.
- Bread should have a pleasant nutty flavour.

3.3 How to ensure a successful product

Table 1 below identifies the problems that cause imperfect bread and how to prevent or correct these problems. Careful and precise preparation is required to produce quality-baked products. Accurate measurements are critical and the recipes (formulas) should be followed very carefully. Mistakes cannot be corrected and, unfortunately, they are often only discovered when taking the finished product out of the oven.

Problem	Cause
Heavy end product with poor volume dough	Too much flour forced into the dough Too little salt Too little yeast Improper fermentation or proofing Oven too hot
Crust too pale	Oven too low Dough over-proofed Too little sugar or milk Too little salt Baking time too short
Crust too dark	Oven too hot Too much sugar Under-fermented Baked too long

Chef says:

Do not refrigerate baked goods, as they will become stale. Do not wrap Italian or French loaves, because wrapping causes the crusts to lose the desired crispness.

Key word

crusts – the cell structures inside a baked product

Top crust separates	Dough improperly shaped Dough dried out during proofing Over-proofing Too much steam in oven at start of baking
Side of loaf cracked	Bread expanded after crust was formed Proofing box too hot
Blisters on crust	Too much liquid Improper fermentation
Ropes of undercooked dough in bread	Insufficient or uneven kneading
Large holes in bread	Too much kneading Too much yeast

Activity 3: Describe the storage and quality of bread

- Mention how bread can be stored after baking. Which breads should not be wrapped and why?
- List the good-quality characteristics required from bread products.

Activity 4: Practical task 1: Yeast sweet baked products

- Visit the local bakery in your area.
 - Make a list of all the different yeast products produced in the bakery.
 - Classify the products into rich, sweet and plain dough products.
- Look in the recipe section of this Learner's Book and find the recipes for yeast products. Choose one recipe for a sweet or rich yeast dough product and prepare it for a special breakfast or lunch function at your school. Note that you will be assessed according to how you cook and present the dish according to the recipe requirements, your standard of hygiene and work organisation. Your dishes will be tasted and assessed for their sensory characteristics. (25)

Activity 5: Practical task 2: Yeast continued

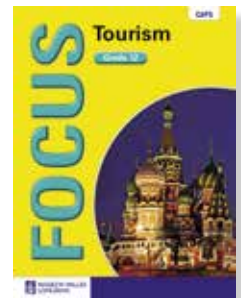
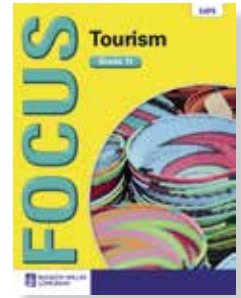
- Prepare a batch of dough (white or brown).
- With your partners, use yeast to prepare the following products from your dough:
 - a miniature pizza with a savoury topping
 - a bread roll to be served for breakfast or lunch
 - a pita (suggest a suitable filling)
 - a focaccia
 - 'vetkoek' with a suitable filling.
- Garnish each dish.
- Write down at least three accompaniments (sauces and side dishes) that you would serve with the baked products.
- Note that you will be assessed according to how you cook and present the dish according to the recipe requirements, your standard of hygiene and work organisation. Your dishes will be tasted and assessed for their sensory characteristics. (25)

Focus Hospitality Studies Grade 12 Learner's Book

Focus Tourism



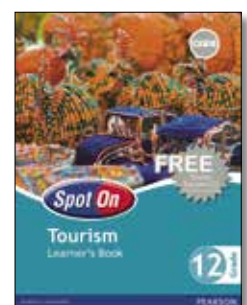
- The content has been carefully structured and written to ensure progression of learning term-by-term.
- Each unit starts with a list of key questions that the learner should be able to answer when they have completed the unit.
- A summary at the end of each chapter recaps the key concepts taught and can be used as a quick revision guide.
- Language support is built in throughout the course.
- Each chapter includes a wide range of activities, exam practice questions and summaries that can be used for consolidation and revision.



Spot On Tourism



- Clear, step-by-step content makes Spot On Tourism suitable for all learning styles.
- Concise summaries at the end of each module help with revision.



Notes and Facts features provide additional information

Contemporary texts make Tourism relevant to learners

Wide range of activities test learners' knowledge

Extension activities provide opportunities for enrichment

Term 1 Week 4

Touch screen information systems

Touch screen information systems are similar to airport information systems. Instead of asking someone for assistance, the system will service and provide information about flights, airport layout, train stations and stops. The information required is selected by touching the screen or typing on a virtual keyboard by tapping the screen.

The use of PDAs and smartphones for air travel

A smartphone is a phone that can operate as a computer by accessing the Internet and email and performing various other functions. These phones can also be used to organize travel documents, book tickets, confirm identification and print boarding passes when problem are available.

They can also do exchange rate conversions, display clouds of different countries' names and see weather forecasts.

A personal digital assistant (PDA) is a mobile device that functions as a personal information manager. Smartphones including the iPhoneTM, the BlackberryTM and others, are capable of performing these functions, making travelling easier. In fact, the iPhoneTM has an application ("app") called "iTravel", which enables passengers to make travel observations and check the flight status. PDAs enable travellers to track flights, check in and check flight status without going to the airport.

Notes

Environmental Sustainability

When possible, use your PDA to enter important information for flight schedules and other flight details and try to avoid printing documents. Using modern technology can help reduce the environment and avoid the use of paper when necessary.

Term 1 Week 4

Activity 4.1 Airport technology

1. How can airports benefit from technology?

2. List three ways in which technology at airports facilitates travel.

3. Describe biometric scanners in your own words.

4. In what way can thermal body scanners be helpful or harmful? Explain.

5. Create a flyer to promote the baggage weight facility at an airport to the flyer you must include:

- what the equipment does
- what the benefits are of using the facility
- where these machines can be found.

6. Draw a table listing the advantages and disadvantages of biometric scanning.

Activity 4.2 How airport technology assists travellers

1. What is an information display board?

2. List four things a traveller might find on this board.

3. How do you think these boards can help with the efficient running of an airport? List two reasons.

4. Create a display board for a flight that has either landed late or is currently boarding. Provide the necessary information that would be displayed.

5. Based on what you have learnt in this work, what advice would you give a person meeting a friend at a restaurant in an airport who cannot find airport personnel to help her? Explain the steps.

6. The use of PDAs and smartphones has become a great help for people who are travelling. You learnt about the closed applications, which make travel observations and check travellers in for flights. Create your own application for people to use on their phones when travelling. Think of something that is useful for travellers. You must be creative and different. You must:

- name your application
- create an icon or picture for your application
- describe what it does for travellers.

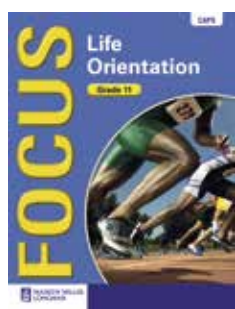
Extension

Full-body imaging scanners are used at some airports to allow the human figure underneath materials like clothes. This system is controversial because many people feel that it invades their privacy. Other airports have body pat-downs where people are physically felt by security to see if they are hiding any potential weapons under their clothes.

1. Do you think these methods are acceptable?

2. Will they help curb terrorism?

3. Write a short paragraph arguing your point.



Focus Life Orientation



- Each chapter covers a two-week period for easy planning. A clear, scaffolded approach to concept development makes learning easy.
- A wide range of activities enables learners to master different skills.
- Difficult and new words are defined to build learners' vocabulary.
- A language reference section provides easy-to-understand grammar explanations and examples. A glossary of language and literature terms helps learners with their study of English.
- Revision activities at the end of each chapter strengthen and consolidate learners' knowledge.
- Colourful visuals stimulate their interest.

Activities provide opportunities for consolidation and practice

Case studies focus on issues relevant to South African learners

Skills focus features provide learners with important Life Orientation tools

Unit 3: Time-management skills and annual study plan
Time: 1 hour

3.1 How do you spend your time?
Grade 11 learners say that time, or the lack of time, is one of their biggest problems. Do you know how to manage your time well? Use every minute, as time is valuable!

Activity 3: Make a pie chart of how you spend your time

1. Show how you spend your time on a typical day by writing in each segment and making it the size closest to the amount of time. (30)
2. Do another pie chart to show how you spend your time in a typical week. (30)
3. What do your pie charts tell you about how you spend your time? (10)
4. Identify any time-wasters. (10)
5. Explain how you will change time-wasting to time-saving. (10)

3.2 Procrastination: A big time waster

Case study:
Norman procrastinates
Norman knows he has to start studying for his exam. So he tells himself he first needs to tidy his desk and sort out his books. After that, he tells himself he needs to go to the shop to buy new pencils and get a ruler. Once home, he feels tired, so he tells himself he needs to sleep for 45 minutes so he can be fresh when he starts studying. He wakes up, and feels hungry. He tells himself he needs to eat well, so his brain needs fuel! So, he makes himself a snack. Then he goes to his desk, determined to study. He opens a book, but then says he must first make a new study plan. He sharpens his pencils... and then looks for paper to draw up his study plan. 'I just better SMS my friends to find out which exam is first!', he thinks. Two hours later he is still SMSing his friends. 'I will start studying just after my favourite soapie!', he promises. After watching the soapie, he tells himself he will start studying tomorrow. He tells himself...

Activity 10: Investigate procrastination

1. What does procrastination mean? (10)
2. Give an example of when you have procrastinated when you were supposed to study. (10)
3. In what way did Norman procrastinate? (10)
4. How did Norman waste time? (10)
5. Give Norman advice about how he should manage his time better. (10)

3.3 Manage your time

Skills focus

Time-management guidelines
Follow these guidelines to better manage your time:

- Always be on time for school.
- Walk fast when you move between classes, and be on time for the next class.
- Know how you spend your time.
- Identify your biggest time-wasters, and then deal with them.
- Make a study plan.
- Make to-do lists and keep to them.
- Avoid procrastinating or putting off doing tasks. If something needs to be done, do it immediately.
- Be self-disciplined.
- Follow a daily study schedule.
- Avoid distractions.
- Do at least two to three hours of homework after school, every day.

When do you study the best?
Are you a morning person or an evening person? Do you study better early in the morning or late at night? Use your best study hours to study for your most difficult subjects.

Get enough sleep
As a Grade 11 learner, your developing brain needs enough sleep. Your ability to learn depends on getting enough sleep on school nights. You need between eight and 10 hours' sleep per night. If you wake up in the mornings and still feel very sleepy, or fall asleep in class at school, you know you are not getting enough sleep. So what if?

- you have five minutes between midnight and 6 am? Rather sleep than see the blue for love video!
- your favourite TV shows are on late at night? Find the off switch – you need the sleep!
- you had put off doing a task and only start late at night because it is due early the next day? Leave that task until tomorrow and start those start exams.

Focus Life Orientation Grade 11 Learner's Book

Spot On Life Orientation



- Module opener pages introduce learners to key concepts.
- Content is taught using simple explanations to help learners understand and remember.
- Varied activities test learners' knowledge and their ability to apply new skills.

Helpful tips keep learners safe during physical activities

Case studies allow learners to apply knowledge in real-life situations

Keywords features help learners to understand new terms

Term 2 Week 6

Tip
On the day of the sports event or sports activity, you need to be able to talk efficiently and smoothly. Use the tips to help you to be an event or sports activity smoothly.

- Plan a schedule or timeline of exactly how the event will take place on the day.
- Your schedule should include all the activities that need to take place during the event, the times they should happen, and so on.
- Explainers must bring clothes that can get wet.

Safety

- Two people instead of just one.
- Don't throw balloons at a person's head or face.

Red Rover

Equipment:

- No equipment is needed.

How to play

Divide into two teams.

- Learners from two lines, holding hands and facing each other. The lines should be 10 to 20 metres apart.
- One team then goes that calls for a member from the other team, by shouting, "Red Rover, Red Rover, let some one over!" Team must try to break through the other team's line. If they break through the opposing team's line, they can choose one of the team members from the opposing team to take back to their team. If they don't break through the line, the last person of the opposing team.
- The game is over when everyone is in one team's line.

Divide into two groups. One group plays Capture the Flag and the other group plays Red Rover. At the halfway point in the lesson, swap and play the game you haven't played.

Physical Education: Participation in programmes that promote own umpiring, administrative, organisational and leadership skills in self-designed and structured community and/or playground and/or indigenous games that promote physical activity

Activity 2.2 Play childhood games

Equipment:

- Two opponents: flags and flags. Fabric strips or sticks will do.
- Balloons.

How to play

- Two teams are needed to play this game.
- Each team has a flag that they have to protect. The opposing team has to try to capture the other team's flag.
- Each team must choose somewhere that a stick or a tree to come as their goal.
- When the game begins, each team decides when to place its flag. Teams can protect their flag by using the water filled balloons. Players can throw the balloons at opponents. If a player gets hit, then they have to sit out and cannot take part in the rest of the game.
- Team members have to guard their own flag or to enter their opponent's territory to capture the other team's flag. Players in enemy territory can be caught tagged and put in jail. A teammate can tag a prisoner to release them from jail, but only they can only release one prisoner at a time.
- The team that captures the other team's flag and brings it back to their territory wins the game.

Red Rover

Equipment:

- No equipment is needed.

How to play

Divide into two teams.

- Learners from two lines, holding hands and facing each other. The lines should be 10 to 20 metres apart.
- One team then goes that calls for a member from the other team, by shouting, "Red Rover, Red Rover, let some one over!" Team must try to break through the other team's line. If they break through the opposing team's line, they can choose one of the team members from the opposing team to take back to their team. If they don't break through the line, the last person of the opposing team.
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Unit 3 Participation in a community service that addresses a contemporary environmental issue

How environmental issues harm certain sectors of society more than others

Community service is often done voluntarily, meaning that people give of their time, skill and resources without expecting any payment. Volunteering is an important part of being a valuable citizen in a democracy.

Because of the importance of community service, it is necessary that you develop your ability to identify, analyse and respond to environmental issues. This involves:

- identifying environmental problems
- understanding that systems are all interconnected (that is political, economic, ecological, cultural and social)
- understanding the historical background to various environmental issues (for example, apartheid which has been the cause of many social and environmental issues)
- developing action plans to address these issues
- being informed about current environmental issues
- clarifying your beliefs about various environmental issues
- researching, evaluating and using information
- turning the message to act.

Community service activities

There are many volunteers in our country who work tirelessly to address environmental issues.

Case study 1

South Africa: Durban's poor fight for clean air

Thousands of people live in south Durban, an industrial area which houses the country's largest petroleum plant. People in this area, mostly of Indian and mixed-race descent, are surrounded by two large oil refineries and a paper mill. The residents were without clean air in the 1980s, under apartheid laws, as a result of cheap labour for the industries.

The local environmental civilis organisation, South Durban Community Environmental Alliance (SDCEA), used their investigations revealed a high incidence of infant and respiratory illness among residents. Volunteers are special teachers to public air samples.

is neighbourhoods overlooking oil refineries, as mention as problems. In South Africa, legislation on air pollution has failed to keep up with growing industrialisation. The local residents have the problem of investigating and proving their claim that industries in their area are making them sick.

SDCEA has become the first African grassroots group to make victims into their own health by taking their own air samples. The campaign has won a community play a major part in building the petroleum plants to change the way they process fuel.

Source: Adapted from <http://www.environmental.org.za> (Accessed August 2011)

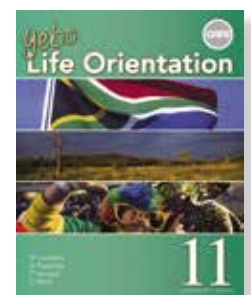
Spot On Life Orientation Grade 11 Learner's Book

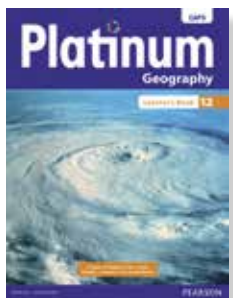
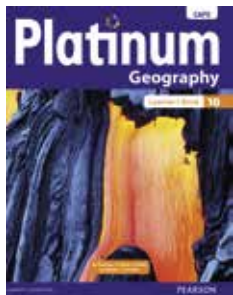
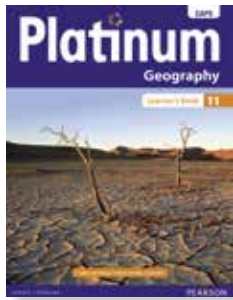


Yebo Life Orientation

AFR

- Clearly written and accessible content contains relevant, interesting information.
- Term and week breakdowns allow for easy planning.
- Full-colour photographs illustrate and support learning.
- New and difficult terms are explained in context.
- Many fun and challenging activities test learners' participation and movement performance. **Challenge** activities are included to provide extension and enrichment.





Platinum Geography

- Chapters and units provide content with a clear and predictable structure.
- A clear, step-by-step approach to concept development enhances understanding.
- Revision activities at the end of each topic strengthen and consolidate learners' knowledge.
- Map work is integrated with the content throughout the topics to facilitate the learning process.
- Relevant case studies allow learners to apply Geography knowledge in real-life situations.
- Full-colour illustrations and photographs stimulate learners' interest.

Keyword features help learners understand new terms

A wide range of activities allow learners to test their knowledge and skills

About our world boxes provide additional information

Unit 1: Areas at risk of drought and desertification: regional and local scales

KEY WORDS

drought – is a period of time with less rain than usual that leads to water shortages.

desertification – the process in which soil quality and vegetation cover are lost, and the land becomes less productive. It is a process that changes the land.

degraded land – land that is no longer as productive as it was previously.

Desertification is the process in which land in semi-arid areas gradually changes into desert. The change takes place as soil becomes less fertile and vegetation cover decreases. Look at Figure 2.49, which shows continents in land productivity due to desertification. In the process of desertification, land that is capable of supporting natural vegetation changes into unproductive land. When this happens, we say that the land is **degraded**. Some places are more at risk of drought and desertification than others.

1. Areas in Africa at risk of drought and desertification

Figure 2.49 shows that, in Africa, there are three regions that are most at risk of drought and desertification. They are all semi-arid and include:

- Lands bordering the Sahara desert in north Africa, especially the strip of land along the southern border. This strip of land is known as the Sahel.
- The basin of Africa.
- Lands bordering the Kalahari desert of southern Africa.

2. Areas in South Africa at risk of drought and desertification

Figure 2.49 shows areas at risk of drought and desertification for the region of South Africa as a whole. Although it gives more information about South Africa, Figure 2.50 gives additional detail at a more local scale. It shows the percentage of months in a year which receive less than three quarters of normal rainfall at different places. In places where the percentage of months is high, the risk of drought is greater than where it is low.

ACTIVITY 1: USING MAPS TO FIND OUT ABOUT PLACES AT RISK OF DROUGHT AND DESERTIFICATION

1. Look at the map of Africa in Figure 2.49 and answer the questions below:

- 1.1 Name the deserts labeled 1 and 2.
- 1.2 Which countries in southern Africa are shown to have areas at high risk of desertification?
- 1.3 In which part of Africa is the area of land at risk of desertification the greatest?
- 1.4 How does the risk of desertification change with distance from the Sahara desert?

2. Look at the map of South Africa in Figure 2.50 and answer the questions below:

- 2.1 How does the risk of drought change from west to east across South Africa?
- 2.2 In which province is the risk of drought the greatest?
- 2.3 Which province has the lowest risk of drought?
- 2.4 Which three provinces are shown on the map to have areas at risk of desertification?

ABOUT OUR WORLD

It is estimated that about 75% of the world's land is already degraded. This is due to a number of factors, including overgrazing, deforestation, and the use of pesticides. Degraded land is less productive and can lead to desertification.

Platinum Geography Grade 11 Learner's Book

Focus Geography



- The topic opener pages introduce learners to the key concepts covered in that section. A clear, step-by-step approach to concept development enhances understanding.
- Varied activities provide learners with frequent opportunities for consolidation and practice.
- **Key questions** at the beginning of each unit maintain focused learning.
- Revision of geographical skills and techniques at the end of each topic consolidates learners' knowledge.

Geo facts provide interesting details to support the text

Activities are structured to develop learners' ability to apply Geography skills

Full-colour, detailed maps and diagrams help learners understand Geography concepts

Key questions

- Which parts of the world experience mid-latitude cyclones?
- In which direction do mid-latitude cyclones travel?
- Which parts of South Africa are affected by mid-latitude cyclones?

Key word

pressure belts - bands of high or low pressure that occur at regular latitudes, for example the equatorial low-pressure belt at the equator

Geo Fact

Sometimes mid-latitude cyclones are called depressions.

Unit 2: Areas where mid-latitude cyclones form

2.1 World distribution of mid-latitude cyclones

Mid-latitude cyclones develop in the middle latitudes from 30°–50° north, and 30°–50° south of the equator along the regions known as the polar front. Study the map in Figure 2.6 to find out which parts of the world experience mid-latitude cyclones. Notice that:

- The mid-latitude cyclones move from west to east in both the northern and southern hemispheres.
- They occur mainly over the oceans and coastal areas. They do not spread across large areas of land such as Canada and Asia.
- They affect regions between 30° and 50° north and south of the equator.

Figure 2.6 Areas of the world where mid-latitude cyclones form

Mid-latitude cyclones in South Africa

Mid-latitude cyclones develop between 30° S and 50° S, at the polar front. The southern tip of South Africa is 33° S, so the cold fronts only cross the southern Cape, as shown on the map in Figure 2.7. The warm fronts are found southwards away from South Africa. Also, the cold fronts only reach South Africa in winter when all the pressure belts and wind systems move slightly north. This is why the southwestern Cape receives winter rainfall. The rain is brought by cold fronts passing across the region from west to east. Figure 2.7 shows a 'family' of cold fronts passing over the southern Cape. This will bring a week of cold, cloudy, wet weather. Sometimes cold fronts can travel as far as the northern provinces of South Africa or even Zimbabwe, bringing cold, cloudy, rainy weather.

Figure 2.7 The area of South Africa affected by mid-latitude cyclones

Activity 2: Locate mid-latitude cyclones

1. Give the latitudes where cold-latitude cyclones occur in the world. (3)
2. Explain why mid-latitude cyclones usually only occur in South Africa during winter. (2)

Key questions

- How does a mid-latitude cyclone begin?

Key words

air mass - a large mass of air, extending for hundreds of kilometres, with similar temperature and humidity

polar front - a zone where the cold polar air mass and warm tropical air mass meet

jet stream - a band of very strong westerly winds high in the atmosphere - above 5 000 m - which partly controls the development of mid-latitude cyclones

Unit 3: Conditions necessary for the formation of mid-latitude cyclones

At about the latitude of 60° S, only a relatively short distance separates the warm tropical air mass from the cold polar mass. This transition zone is called the **polar front**. Sometimes that a front is a zone where two air masses of different temperature meet. The polar front is where the warm, moist air of the mid-latitude cell meets the cold air of the polar cell. Look at Figure 2.8 to see the positions of the polar fronts in the northern and southern hemispheres.

The warmer air gets pushed up the polar front while the colder air wedges in underneath as shown in Figure 2.9.

A pressure difference exists between the warm tropical air and cold polar air. This results in a pressure gradient. The westerly winds and the polar westerlies blow along these pressure gradients towards the polar front.

Figure 2.8 The positions of the polar fronts in the northern and southern hemispheres

Figure 2.9 The polar front is between the mid-latitude and polar cells

Sometimes a bend forms in the polar front as shown in Figure 2.10. This is due to a disturbance in which high in the atmosphere is the jet stream, or it can be caused by a mountain range or the shape of the coastline.

This change in position of the polar front causes the weather to turn across of a circular pattern, and a cell of low pressure begins to form. The winds then deflect and blow into the low pressure cell as shown in Figure 2.11. This is the condition necessary for the beginning of a mid-latitude cyclone.

Geo fact

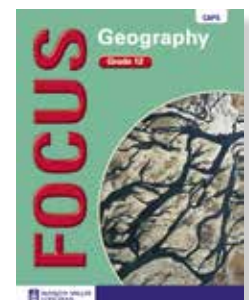
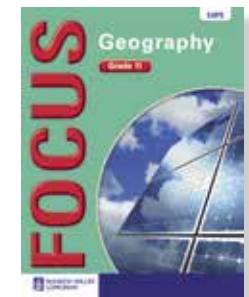
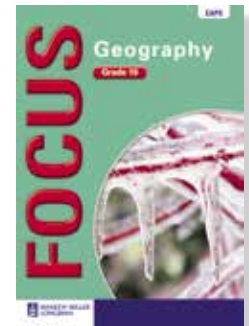
Winds in the jet stream blow at 300 km/hour because there is no friction with Earth's surface.

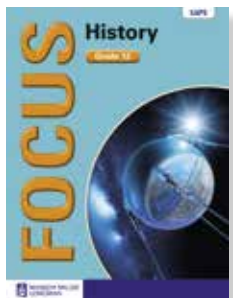
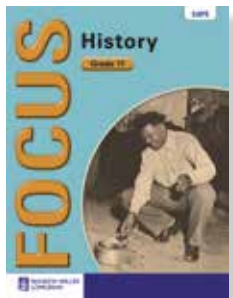
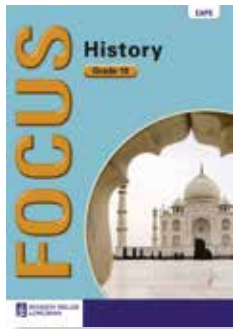
Focus Geography Grade 12 Learner's Book

Spot On Geography



- Content breakdowns into terms and weeks according to CAPS make planning easy.
- Full-colour artwork and photographs stimulates learners' interest and supports comprehension.
- Interesting case studies help contextualise the Geography learning experience.
- Plenty of activities provide opportunities for consolidation and practice.





Focus History



- Chapters and units structure content into manageable lengths according to CAPS.
- Simple explanations help learners understand and remember History content.
- **Skills focus** features develop subject-specific skills such as analysing historical sources.
- Summaries at the end of each topic support the consolidation of knowledge. Exam practice questions provide opportunities for assessment.

Did you know? boxes provide additional information

Activities provide opportunities for consolidation and practice

Written and visual sources support and enhance understanding

Unit 2: Development of technology

The conversion of voyages of discovery into colonisation was made possible by the new navigation and firepower technologies.

2.1 Development of military technology

The Renaissance was accompanied by a scientific revolution. Overseas expansion was made possible by developing new military technology including gunpowder and guns. The European explorers used new powerful guns. Gunpowder was used to shoot bullets from guns and cannonballs from cannons – from long distances and at high speed. The people the Europeans conquered did not have these weapons at the time.

Gunpowder is also called black powder. It was the first explosive and was invented by the Chinese.

2.2 Naval advances

There were advances in ship-building and in technology that aided navigation while sailing on the open seas. These advances made it possible for European explorers to navigate on the oceans.

Progress in ship-building

At the start of the 15th century, European ships were inferior to those used by Arab and Chinese traders; but within 200 years, they were building the best ships in the world. These ships were able to change direction quickly, were suited for long journeys and could sail in dangerous winds. The combination of light, well-controlled ships with the firepower of iron cannons gave European colonisers a distinct advantage when they landed on foreign shores.

Other advances that aided navigation

Naval technology was enhanced by other advances including the compass, the discovery that the earth was round, new maps, the telescope and the Mariner's Astrolabe.

Did you know?
The Arabs produced the first known working gun in 1304. Europeans got information about gunpowder through the writings of Arab scholars.

Source J: A compass has a magnetic steel needle attached to a disk. The point of the needle always points north. The compass, a navigational instrument for determining direction, greatly improved the safety and efficiency of ocean travel. The compass made it possible for sailors to take their ships farther out into the open sea instead of always staying close to the land. Once they were out in the sea, they were able to use these new instruments to find out where they were and where to go.

Source K: Renaissance scientists proved that the earth is round, and not flat. Understanding that the earth is round opened the way for European navigators and explorers to sail more confidently across the sea.

Source L: The travel by explorers to continents they had never seen before created a new interest in the study of geography in Europe. Europeans created new maps that helped their navigators and explorers.

Source N: The Mariner's Astrolabe was used to determine the latitude of a ship at sea by making complicated measurements. The astrolabe is an astronomical instrument for solving problems relating to the time of day and the position of the sun and stars in the sky. It was introduced to Europeans through Arabs.

Source M: Telescopes are instruments specially built for looking at distant objects. The astronomical telescope was invented and used to study the moon, sun and stars.

Activity 3: Extracting information from sources about how European technologies made expansion possible

1. New and borrowed inventions, and advances in science and geography made the European voyages of exploration possible. Use the sources J to M to work out which invention sailors needed for each of the following tasks on a journey. There may be more than one invention or advance for each task.
 - 1.1 Sailors could sail out of sight from land without getting lost.
 - 1.2 Sailors were certain that their ships would not fall off the edge of the world.
 - 1.3 Ships could change direction quickly, were suited for long journeys and could sail in dangerous winds.
 - 1.4 Sailors could kill people who got in their way at sea.
2. How would you describe the sailors who went on these long ocean journeys? Choose from the following list, and add your own words as well. Use a dictionary to look up the words that you may not understand. rough, greedy, uncivilised, powerful, spirited, gallant, brave, chivalrous, courageous, determined, adventurous, curious, desperate

Focus History Grade 10 Learner's Book

Spot On History



- Simple explanations help learners to understand and remember content.
- Timelines help learners' to understand the order of historical events and identify trends.
- Activities develop learners' ability to extract and interpret information.
- **Tip** features and written and visual sources provide additional information and enhance learners' understanding.



Languages



Platinum Afrikaans Huistaal



- 'n Duidelike en voorspelbare struktuur bevorder die bemeestering van verskillende taalvaardighede: Luister en Praat, Lees en Kyk, Begrip en Letterkunde, Skryf en Aanbied asook Taalstrukture en -konvensies.
- Die Leerderboek bevat 'n verskeidenheid interessante leestekste soos kortverhale, koerantberigte, advertensies, verslae, gedigte, prente en foto's wat die leerder se verwysingsraamwerk verbreed.
- Die Spel dit só-raampie bevat moeilike woorde wat leerders moet kan spel.
- Al die leestekste bevat spesiale annotasies of byskrifte om elemente van die teks uit te lig.
- Die Leerderboek bevat 'n omvattende taalafdeling met taalreëls en ekstra inskerpingsoefeninge.
- Voorbeeldtaalvraestelle gee leerders nuttige oefening wat hulle sal help om vir die eksamen voor te berei.

Insluiting van tematies-relevante idiome

Annotasies om die tekstenmerke uit te lig

Fokus op die proesesbenadering

Verklarings van moeilike woorde in die teks

Verduideliking van leesstrategieë

INLEIDING: LUISTER EN PRAAT

Kyk na die foto op die vorige bladsy en bespreek die volgende vraag met 'n maat:

- Watter taal het die foto jou dink?
- Watter voorstelling maak daar hantele foto voorgestel?
- Is 'n taal 'n spreektaal of 'n skryftaal?

Tref met taal

Wat is 'n taal?	Watter taal is 'n taal?
Die taal gesels:	'n taal gesels praat
Jou eie taal:	Jou moedertaal
Kulturele taal gebruik:	Watter taal gebruik

LEES EN KYK

Aktiwiteit 1: Lees 'n saaklike teks en 'n opsommende tabel

Pro-lees:

- Hoor 'n mens in die artikel van Afrikaans praat? Wat is die tema van die artikel?
- Is dit 'n 'n taal gebruik wat 'n ander taal is? Wat is die tema van die artikel?
- Dink jy 'n mens kan 'n taal gebruik wat 'n ander taal is? Wat is die tema van die artikel?

Lees en kyk

Leesstrategie: Vragstels

- Die doel van vragstels is om 'n vraag te stel wat 'n mens help om die teks te begrip.
- 'n mens kan 'n vraag stel wat 'n mens help om die teks te begrip.
- 'n mens kan 'n vraag stel wat 'n mens help om die teks te begrip.

Leesstrategie: Afleidings

Om 'n afleiding te maak moet jy:

- 'n mens kan 'n afleiding maak wat 'n mens help om die teks te begrip.
- 'n mens kan 'n afleiding maak wat 'n mens help om die teks te begrip.

Teks 1: Afrikaans

Die eerste artikel wat ons lees is 'n artikel oor Afrikaans. Dit is 'n artikel wat ons lees.

Familietaal

Die artikel is 'n artikel oor Afrikaans. Dit is 'n artikel wat ons lees.

Wêreldkaart

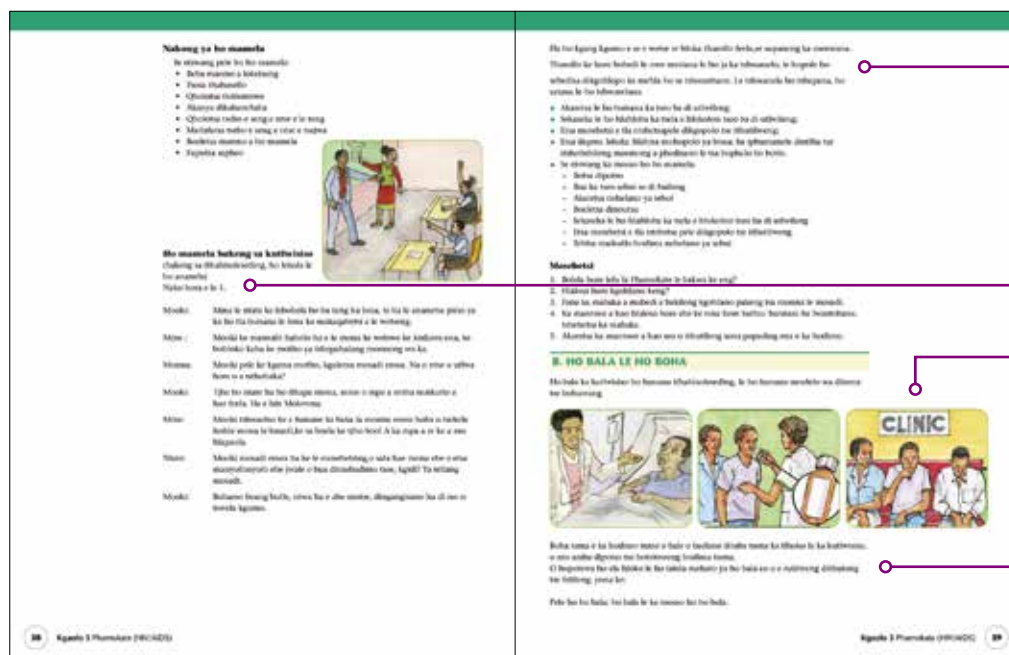
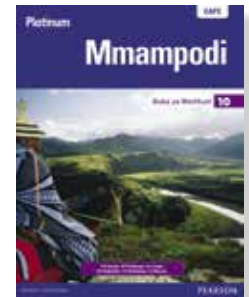
Die kaart toon die wêreld en die verspreiding van Afrikaans.

Platinum Afrikaans Huistaal Graad 10 Leerderboek

Platinum Mmampodi



- Sebopeliso se hlakileng se dupehang se kgothaletsa maikutlo a ho ithuta a maemong.
- Ditlhaloso tse bobebe di thusa baithuti ho utlwisisa le ho hoopla.
- Dithuto le ditema tsa mehleng ena di etsa hore dikateng di nepahale haholo ho baithuti ba Afrika Borwa.
- Mefutafuta ya mesebetsi e neha baithuti menyetla ya ho tseba mekgwa e fapaneng ya bokgoni.
- Mesebetsi ya boikgopotso mafelong a kgaolo ka nngwe e matlafatsa tsebo ya baithuti.
- Mantswe a boima le a matjha a hlaloswa ho bopa tlotlontswe ya baithuti.



E akaretsa ditshebetso tsohle tsa bokgoni ba puo

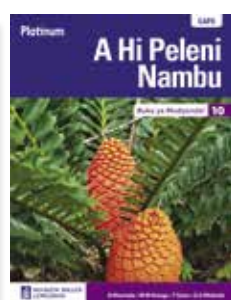
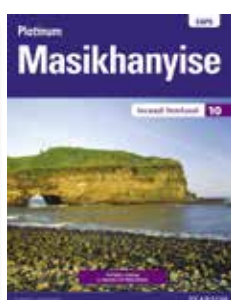
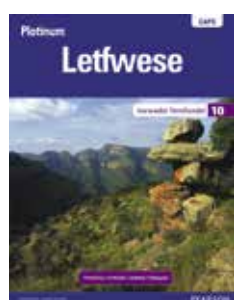
Mehlala ya ditema

Ditshwantsho tse mebalabala leqepheng ka leng di tsosa thahasello

Mesebetsi le ditlhakiso tsa boikgopotso di etsa baithuti ba kgone ho matlafatsa tsebo le ho lekola bokgoni ba bona ba puo

Platinum Mmampodi Kereite 10 Buka ya Moithuti

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Platinum Afrikaans Huistaal



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- Voorbeeldtaelvraestelle gee leerders nuttige oefening wat hulle sal help om vir die eksamen voor te berei.

Insluiting van tematies-relevante idioome

Kernvaardighede duidelik uitgelig

Fokus op die proeses-benadering

Annotasies om die tekstenmerke uit te lig

Verduideliking van leesstrategieë

The screenshot shows a textbook page with several annotations and activities. On the left, there are five purple boxes with white text, each connected by a line to a specific part of the textbook page. The annotations are: 'Insluiting van tematies-relevante idioome' (pointing to a section on idioms), 'Kernvaardighede duidelik uitgelig' (pointing to a section on core skills), 'Fokus op die proeses-benadering' (pointing to a section on the process approach), 'Annotasies om die tekstenmerke uit te lig' (pointing to a section on text markers), and 'Verduideliking van leesstrategieë' (pointing to a section on reading strategies). The textbook page itself has a red header and contains various sections including 'Aktiwiteit 1: Besprek van', 'Tref met taal', 'Aktiwiteit 2: Lees 'n koerantberig en 'n gedig', and 'Lees en kyk'. There are also illustrations and a large text block on the right side of the page.

Platinum Afrikaans Huistaal Graad 11 Leerderboek

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Platinum Afrikaans Huistaal



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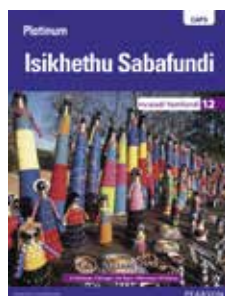
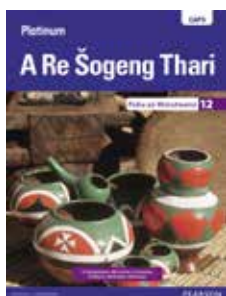
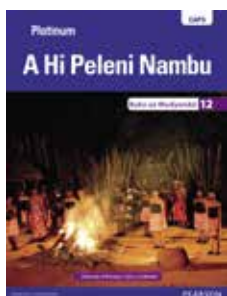
Kernvaardighede duidelik uitgelig

Fokus op die proesesbenadering

Verduideliking van leesstrategieë

Platinum Afrikaans Huistaal Graad 11 Leerderboek

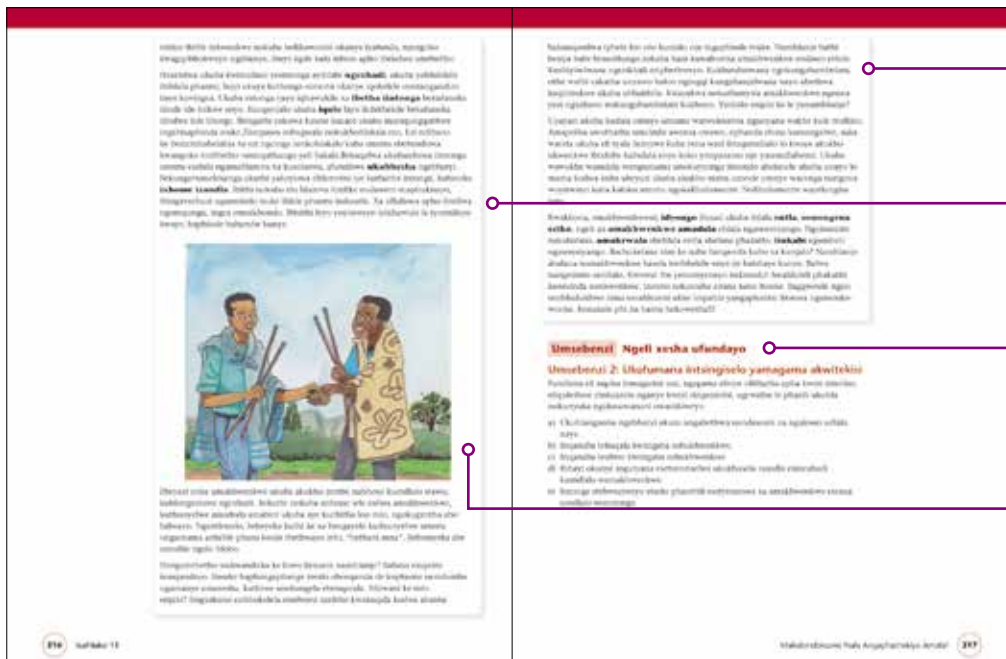
Other Platinum Home Language Grade 12 titles available



Platinum Masikhanyise



- Isakhiwo esicacileyo nesiqikelelweyo siphicula iingqiqo zokufunda kwimeko.
- Iingcaciso ezilula zincipha abafundi ukuba baqonde kwaye bakhumbule.
- Imixholo nezicatshulwa zeli xesha zenza umxholo ube semxholweni kakhulu kuMzantsi Afrika. Imisebenzi eyahlukeneyo inika amathuba kubafundi ukuba babe nobuchule bezakhono ezahlukeneyo.
- Imisebenzi yohlaziyo ekupheleni kwesahluko ngasinye kuzinzisa ulwazi lwabafundi.
- Amagama amatsha nanzima achaziwe ukwakha isigama sabafundi.



Iquka zonke iinkqubo zezakhono zolwimi

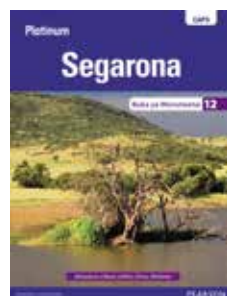
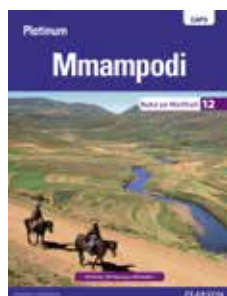
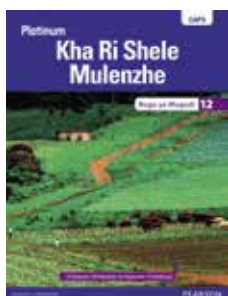
Imifanekiso eqaqambileyo kwiphepha ngalinye evuselela umdla

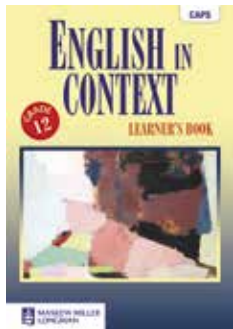
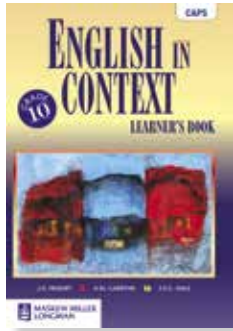
Imisebenzi eyenza abafundi bazinzise ulwazi nokuqavanya izakhono zabo zolwimi

Imizekelo yazo zonke iinhlobo yezicatshulwa

Platinum Masikhanyise Grade 12 Learner's Book

Other Platinum Home Language Grade 12 titles available





English in Context

English Home Language



- Content provides learners with many opportunities to use English in an integrated way.
- Carefully selected material ensures relevance in the southern African context.

Integration of language and literary skills across other subjects

Activities extend vocabulary use and understanding of language structures

Wide range of literary and non-literary texts develop proficiency in reading and viewing

ON YOUR OWN

Completing a map

One way of summarising information is to use a chart, map or diagram. Sketch the map below into your workbook and then complete it to show the change in the migration patterns of the wildebeest described in the excerpt from *Cry of the Kalahari*. (The symbols you will need to show the migration patterns of the wildebeest have been provided in the key.)

Once you have completed the activity, think of a strongly emotive heading for the map.

18 Chapter 1: The 'green' scene

FOCUS ON LANGUAGE

Connotations of emotive language

Consider how the use of emotive language in these two advertisements evokes very different responses from the reader:

Sighting of Rare Leopard

Wildlife Supporters

The sight of a leopard in the wild is one to stir the blood. Unhappily, it's a sight that is fast becoming rare. The main reason why the leopard, the elephant and the gorilla are now endangered species is because too many hunters have them in their sights: rare leopards are being slaughtered for their skins.

The World Wildlife Fund desperately needs your support in its efforts to prevent trade in endangered species. Trade in skins, ivory, even live animals, has brought many species to the verge of extinction. It's not just the leopard – over 1 000 different kinds of animals are under threat, right now. Among them are the elephant, the rhino and the polar bear.

Please help us to save the leopard and other threatened species.

1. List all the emotive words used in the World Wildlife Fund (WWF) advertisement.
2. What impact do these words have on the reader?
3. Choose three emotive words from the text and discuss their connotations.
4. What is the intention of the WWF in this advertisement?
5. How does the picture of the leopard create a pun when it is considered together with the title?

GOWAYDILAND WONDERLAND

Unique GOWAYDILAND – Africa's jewel

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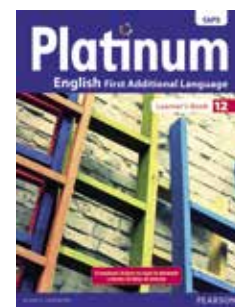
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Platinum English First Additional Language



- Chapters each contain the work learners need to cover during a full two-week cycle.
- A range of texts support learners' study of English literature. Grammar focus sections provide learners with easy-to-understand explanations and practice opportunities.
- **Glossary** margin features help learners with new words.
- Varied activities allow learners to focus on key content and master different skills.
- Revision activities at the end of each chapter consolidate learners' knowledge.

A wide range of activities provides opportunities for consolidation and practice

Annotations explain the features and structures of different English texts

Words you can use feature helps build learners' English vocabulary

LANGUAGE STRUCTURES AND CONVENTIONS

Activity 2 Find the meaning of jargon

Jargon
Jargon is specialised terminology, or language, used by a group of people who work in a particular area or who have a common profession or interest. For example, fields like computing, architecture, music, science, maths and the company world all have their own jargon. People who study maths know what a *parabola* or a *hyperbola* means.

Research Internet jargon
The words listed below are examples of Internet jargon.

bing lingo facebook tweet google post app URL upload download trending tablet hoodie

- In groups of two or three find out the meaning of each word. Use your dictionary or search engine, or discuss the words in your group.
- Write a short, simple definition of each word to explain what it means.

LISTENING AND SPEAKING

Activity 3 Introduce a speaker
You are going to introduce a speaker to an audience.

Planning, researching and organising

Who introduces a speaker?
A member of committees at a party, or friend, colleague, or the chairperson of a meeting.

What is the role of the person introducing the speaker?

- To prepare the audience to listen to a speaker
- To make the audience interested in and pay attention to the speaker
- To give background information about the speaker

Who is the audience?
How formal or informal the introduction depends on the occasion and the audience. This is also called *register*.

- At a birthday party or wedding, sometimes the audience may be friends and family. Therefore, the introduction will be less formal and informal, using first names and informal language.
Example: "Hello everyone. Andy is a special friend to many of us and he needs no introduction."
- If the occasion is formal and members of the audience are less familiar with one another, the language will be more formal.
Example: "Good evening ladies and gentlemen/collagues/fellow members. It is a great honour and privilege to present to you ..."

Practising
You need to follow the guidelines of public speaking by preparing what you are going to say and by practising before you present. Here is an example of an introduction of a speaker.

Ladies and gentlemen, our speaker for this evening is well known in the KwaZulu community. He is the founder of the Young Minds Business Initiative. Before his name to anyone in KwaZulu and they will say "That's a true entrepreneur".

His dedication to the development of the youth of this community has touched many lives. He passed his career with six distinctions at KwaZulu High School. When his parents could not afford to pay for his university studies, he decided to start his own business in which he encouraged young people to work for a computer skills programme. He approached a number of sponsors who helped fund the purchase of computers and the building of a computer centre. He and other dedicated young people started classes in which they taught basic skills. The business has created employment opportunities for many in the community. He has taught us that a true entrepreneur is not one who creates wealth, but one who provides a service to improve the lives of ordinary people.

"The title of the speech is 'How is it possible to succeed?' Please join me in giving a warm welcome to my distinguished speaker."

Glossary

dedication ... devotion, more than 80%
dedicate ... help enough ... succeed

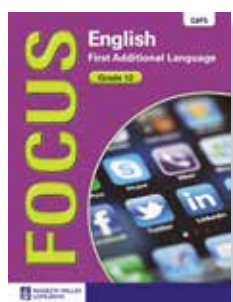
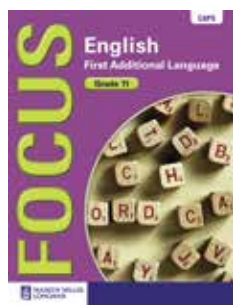
dedication ... devotion, more than 80%
dedicate ... help enough ... succeed

It gives the great pleasure to introduce ...
It is an honour and a privilege to ...
Let's give a warm welcome to ...
... and that is most often ...
Well ...
Ladies and gentlemen, let's put our hands together for ...

Presenting
Prepare your own introduction of a speaker and follow the guidelines on page 36.

- The introduction should be one to two minutes long.
- The introduction should be concise and effective.

Platinum English First Additional Language Grade 12 Learner's Book



Focus English First Additional Language



- Each chapter covers a two-week period for easy planning. A clear, scaffolded approach to concept development makes learning easy.
- A language reference section provides easy-to-understand grammar explanations and examples. A glossary of language and literature terms helps learners with their study of English.
- A wide range of activities enables learners to master different skills. Revision activities at the end of each chapter strengthen and consolidate learners' knowledge.

Annotations explain the features and structures of different English texts

Activities provide opportunities for consolidation and practice

Word power features build learners' English vocabulary

Unit 2 Reading and viewing: Informative text

Read a feature article

You are going to read about another impressive young South African scientist. Before you read the text, read the title and the caption to the photograph. What information do these give you?

While you read, pay attention to all the words that give readers a positive impression of Xuso. Make a list of these in your personal dictionary.

After you have read, write answers to the questions in Activity 3.

South African reaching for the stars!

1 Spotlights Xuso is one of South Africa's most successful young scientists. His passion for science started when he was a six-year-old. He explains, 'One of my earliest memories of my childhood in Umzimandla in the Eastern Cape was seeing a plane flying overhead dropping glowing rocket parachutes in 1994.' Xuso was fascinated by the airplane. From there he began to build rockets in his mother's kitchen, and remembers once missing the fuel incorrectly and having a mini-explosion which luckily caused no real damage but did create a mess!

2 From the Eastern Cape, Xuso's family moved to Johannesburg where he was given a scholarship to attend St. John's College. There he developed his love for science, especially aerodynamics. With the guidance of teachers, he built the Phoenix, a rocket which reached the height of 1 235 metres. This was done in 2002. He was 14 at the time and with this achievement he won an award at the Eastern National Science Expo as well as breaking the South African *Aviation Altitude Record*.

3 When Xuso was in Matric, at the age of 18, he had already started to achieve success as a young scientist. That year he attended the International Youth Science Fair in Bremen, and he won two grand awards at the Intel International Science and Engineering Fair which was held in New Mexico, in the United States. His awards were in the Energy and Transportation category.

4 His project was a revolutionary cheaper rocket fuel. He explained that when he found out that rocket fuels were very expensive, he thought that the money could be better spent on other projects such as research into AIDS and HIV. So he decided to develop a way to make rocket fuels cheaper.

5 One of his more unusual projects is a plane that is named after him. The NASA-affiliated Lincoln Laboratory named a minor planet after him. Planet 32402 was discovered in 2000 – the same time that Xuso was becoming serious about rocketry. It is now officially known as *Xusosius*.

6 After matriculating, Xuso went on to study chemical engineering at the University of Cape Town, until he received the news that he had been granted a bursary to study at Harvard University in the USA.

Activity 3: Answer questions about a text

1 Which of these statements best explains paragraph 1?

A. After seeing the aerial drop of glowing parachutes, Xuso became interested in politics. (1)

B. After seeing the aerial drop of parachutes, Xuso became interested in airplanes. (1)

C. After seeing the aerial drop of parachutes, Xuso started his ballooning. (1)

2 Which of these statements best describes Xuso's early engagement with rocket fuel?

A. He blew up his mother's kitchen. (1)

B. He was given an award for the successful fuel. (1)

C. He missed a rocket fuel on damage. (1)

3 How far did his high school rocket travel?

A. Did he develop it in rocket science or with help? (1)

4 What does the word that shows this?

5 List three words that Xuso had achieved by the age of 18. (3)

6 Explain why Xuso was interested in developing a cheaper rocket fuel. (2)

7 Which word from paragraph 4 means very rare or difficult? (1)

8 Suggest why it is unusual for a planet to be named after a person. (2)

9 Explain how the name of the planet was developed. (2)

10 Why do you think this award was given to Xuso? (2)

11 Find synonyms from the last paragraph for:

11.1 talented 11.2 innovative 11.3 obscure **Total: 30 marks**

Word power

passion – intense interest
enthusiasm – not controlled, not aware to make money
altitude – the height of something above sea level
NASA – the American Civil Service that has authority of sending the National Aeronautics and Space Administration, an American organisation

Focus English First Additional Language Grade 11 Learner's Book



Spot On English First Additional Language

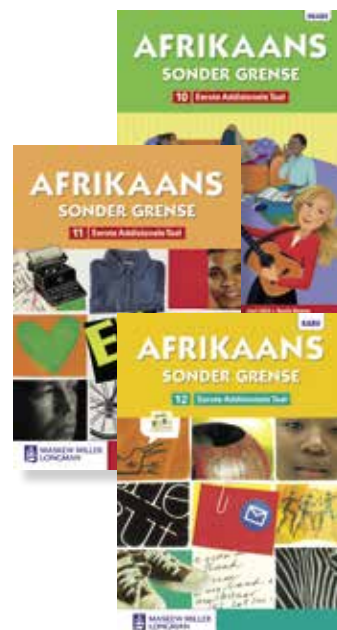


- Term and week breakdowns according to CAPS make planning easy.
- Activities provide learners with opportunities for consolidation and practice.
- A range of texts develops learners' proficiency in reading.

Afrikaans sonder grense Eerste Addisionele Taal



- 'n Verskeidenheid interessante leestekste soos kortverhale, koerantberigte, gedigte, prente en foto's verbreed die leerder se verwysingsraamwerk en ontwikkel taalvaardighede.
- Die Leerderboek bevat 'n omvattende taalafdeling met taalreëls en ekstra inskerpingsoefeninge geskik vir die tweede addisionele taal-leerder.
- Die **Afrikaans sonder grense** Eerste Addisionele Taal Onderwysersgids sluit 'n **GRATIS** Eksamenbank CD-ROM in!



Spot On Afrikaans Eerste Addisionele Taal



- Die Leerderboek bevat 'n omvattende taalafdeling met taalreëls en ekstra inskerpingsoefeninge geskik vir tweede-addisionele taal-leerders.
- Sterk fokus op taalstrukture en konvensies met baie oefeninge.
- Volledige instruksies vir aktiwiteite.



Afrikaans sonder grense Tweede Addisionele Taal



- Sterk fokus op taalvaardighede soos Lees en kyk en Luister en praat.
- 'n Groot verskeidenheid interessante leestekste wat leerders se belangstelling sal prikkel.
- Die Afrikaans sonder grense Tweede Addisionele Taal Onderwysersgids sluit 'n **GRATIS** Kontroletoeetsboek en 'n Eksamenbank CD-ROM in!



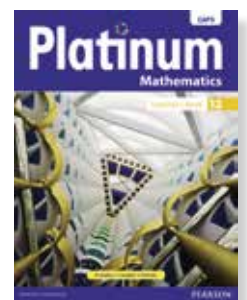
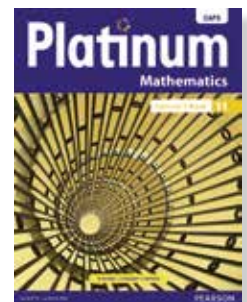
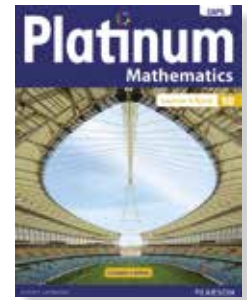


Mathematics

Platinum Mathematics



- Content divided into topics and units provides comprehensive curriculum coverage.
- Accessible language written on an appropriate level ensures understanding.
- Summaries support the consolidation of Mathematics knowledge.
- Examination practice papers provide opportunities for exam revision and assessment.
- Comprehensive memoranda allow learners to check their revision and exam answers.
- Worked examples and solutions present learners with clear, visual learning support.
- Remember boxes and margin notes remind learners of concepts they need to apply.
- Colour diagrams support the learning of Mathematics concepts.



Difficult and new words are defined to build learners' vocabulary

Exercises focus on key Mathematics content to enable learners to master different skills

Margin notes provide additional information to enhance understanding

TOPIC 6

Functions: Trigonometric graphs

Unit 1: Revision of trigonometric graphs using point-by-point plotting

KEY WORDS

period – the number of complete cycles of a periodic function

amplitude – half the total distance between the maximum and minimum values

vertical asymptote – a vertical line that the graph approaches but does not cross

Remember – An asymptote is a line which cannot be touched or crossed by the graph to which it is an asymptote.

The three basic trigonometric graphs are:

- $y = \sin x$, $y = \cos x$ and $y = \tan x$

Trigonometric graphs covered in Grade 11 include:

- $y = \sin x$, $y = \cos x$, $y = \tan x$ and $y = \cot x$

Use a table to generate the graph by substituting x values into an equation to find the y -values.

Use the table below to generate the graph of $y = \sin x$.

WORKED EXAMPLE

1. The x -values to complete the table for $y = \sin x$.

x	0°	30°	45°	60°	90°	120°	135°	150°	180°
y	0	0,5	0,71	0,87	1	0,87	0,71	0,5	0

2. Give the range of y .

3. Sketch the graph $y = \sin x$ by plotting the points from the table.

4. Give the period of the graph.

5. Give the amplitude of the graph.

6. Describe how the graph $y = \sin x$ must be shifted to become $y = \sin(x + \pi)$.

SOLUTIONS

x	0°	30°	45°	60°	90°	120°	135°	150°	180°
y	0	0,5	0,71	0,87	1	0,87	0,71	0,5	0

2. The range of y is $[-1; 1]$.

3. Sketch the graph $y = \sin x$ by plotting the points from the table.

4. The period of the graph is 360° .

5. The amplitude of the graph is 1.

6. The graph $y = \sin x$ must be shifted 180° to the left to become $y = \sin(x + \pi)$.

EXERCISE 1

1. 1.1 Copy the table provided for the function $y = \sin x$ and complete it for $y = \sin x$.

1.2 Give the range of y .

1.3 Sketch the graph $y = \sin x$ by plotting the points from the table.

1.4 Give the period of the graph.

1.5 Give the amplitude of the graph.

1.6 Describe the shift required for the graph $y = \sin x$ to become $y = \sin(x + \pi)$.

2. 2.1 Copy the table below and complete it for $y = \sin x$.

x	0°	30°	45°	60°	90°	120°	135°	150°	180°
y	0	0,5	0,71	0,87	1	0,87	0,71	0,5	0

2.2 For which values of x is $\sin x = 0$?

2.3 $y = \sin x$ is undefined at $x = 90^\circ$, which is one of the vertical asymptotes of the \sin graph. State the equations of the other vertical asymptotes of $y = \sin x$ for $x \in [0; 360^\circ]$.

2.4 Sketch $y = \sin x$ for $x \in [0; 360^\circ]$, indicating the intercepts with the x -axis and the asymptotes.

2.5 Note the range and the amplitude of $y = \sin x$.

2.6 Give the period of $y = \sin x$.

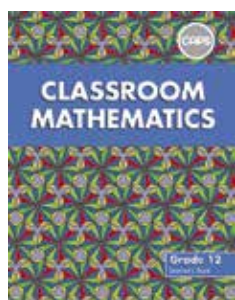
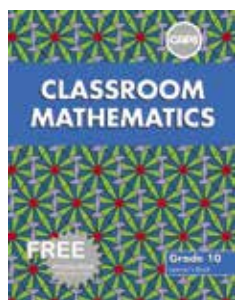
REMEMBER

Remember to give x in degrees.

Platinum Mathematics Grade 11 Learner's Book

Platinum Mathematics is the **only CAPS Maths course that has been approved for all grades.**





Classroom Mathematics



- Terms and weeks listed at the bottom of each page allow for easy planning.
- **Extend your skills** features allow learners to practise problem-solving skills.
- A wide range of activities allows learners to master different skills.
- Learner's Book includes a **FREE** Practice Book

Clear, step-by-step explanations enhance understanding

Additional information in Notes features supports learning

Worked examples and solutions explain difficult concepts

The value of a derivative at a point

To calculate the value of the derivative of $f(x)$ at a specific point where $x = a$, either find $f'(a)$ as above and then calculate $f'(a)$ (substitute a for x in $f'(x)$), or calculate $\lim_{h \rightarrow 0} \frac{f(a+h) - f(a)}{h}$ directly.

Example 1
If $f(x) = 3x^2$, find $f'(2)$ using the definition of derivative.

Solution:

Method 1

$$f'(x) = \lim_{h \rightarrow 0} \frac{f(x+h) - f(x)}{h}$$

$$= \lim_{h \rightarrow 0} \frac{3(x+h)^2 - 3x^2}{h}$$

$$= \lim_{h \rightarrow 0} \frac{3(x^2 + 2xh + h^2) - 3x^2}{h}$$

$$= \lim_{h \rightarrow 0} \frac{6xh + 3h^2}{h}$$

$$= \lim_{h \rightarrow 0} (6x + 3h)$$

$$= 6x$$

$$\therefore f'(2) = 6 \times 2$$

$$= 12$$

Method 2

$$f'(x) = \lim_{h \rightarrow 0} \frac{f(x+h) - f(x)}{h}$$

$$= \lim_{h \rightarrow 0} \frac{3(x+h)^2 - 3x^2}{h}$$

$$= \lim_{h \rightarrow 0} \frac{3(x^2 + 2xh + h^2) - 3x^2}{h}$$

$$= \lim_{h \rightarrow 0} \frac{6xh + 3h^2}{h}$$

$$= \lim_{h \rightarrow 0} (6x + 3h)$$

$$= 6x$$

$$\therefore f'(2) = 6 \times 2$$

$$= 12$$

Exercise 9.5

1. Find the derivatives of the functions at the indicated points using the definition of derivative:

- $f(x) = 2x - 3$ at $x = -2$, $x = 0$ and $x = 4$
- $g(x) = -3x^2$ at $x = -3$, $x = 0$ and $x = 3$
- $p(x) = 5$ at $x = -6$, $x = 2$ and $x = 3$
- $r(t) = t^2 - 3$ at $t = -1$, $t = 0$ and $t = 2$
- $s(t) = 2t - 5t^2$ at $t = 0$, $t = 1$ and $t = 2$
- $u(t) = 3t - t^2$ at $t = -1$, $t = 0$ and $t = 1$

Alternative notations

- If f is a function of x , then instead of writing $f'(x)$ for the derivative of f with respect to x , we could use the Leibniz notation $\frac{d}{dx}f(x)$ or $\frac{d}{dx}f$ or $\frac{dy}{dx}$ where $y = f(x)$.
- The x in $\frac{d}{dx}f(x)$ or $f'(x)$ indicates that the derivative is with respect to the variable x . So, if we have $f(t) = t^2 - 3t$ (say), then we would write $f'(t)$ or $\frac{d}{dt}f(t)$ for the derivative which is now with respect to t .
- The notation D_x (the differential operator) is also used to denote a derivative. For example, from the previous exercise, $D_x[3x^2] = 6x$ and $D_x[2t - 1] = 2 - 2t$. $\frac{dy}{dx}$ is often written simply as y' when there is no chance of confusion. For example if $y = -3x^2$ then $y' = -6x$.

We shall use all of the notations.

Standard forms and rules for differentiation

Instead of always using limits to find derivatives (which can be tedious), we can use rules that enable us to differentiate certain functions by inspection.

- The derivative of a constant is zero.
If $f(x) = k$, a constant, then $f'(x) = 0$.
- The derivative of x^n is nx^{n-1} where n is a constant.
If $y = x^n$, a constant, then $\frac{dy}{dx} = nx^{n-1}$.

Example 1:
Write down the derivative with respect to x of the functions of x :

- 4
- -3
- 0

Solution:

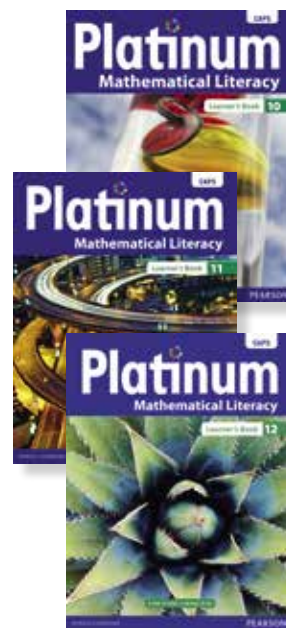
- $\frac{d}{dx}4 = 0$
- $\frac{d}{dx}(-3) = 0$
- $\frac{d}{dx}0 = 0$

Classroom Mathematics Grade 12 Learner's Book

Platinum Mathematical Literacy



- Chapters and units structure the content into manageable lengths according to CAPS.
- Worked examples and solutions explain difficult concepts, while a variety of exercises enable learners to master different skills.
- Revision activities at the end of each chapter strengthen and consolidate learners' knowledge.
- Visual support helps with understanding and stimulates learners' interest.



Spot On Mathematical Literacy



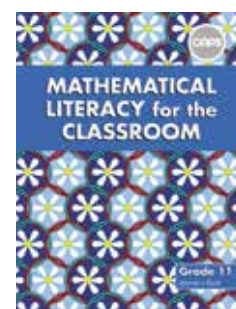
- A clear and predictable content structure enhances conceptual understanding.
- Step-by-step guidance with detailed explanations and worked examples with solutions are provided to explain difficult concepts.
- Activities are structured to develop the required skills.
- Notes features provide additional information to assist in the learning process.



Mathematical Literacy for the Classroom

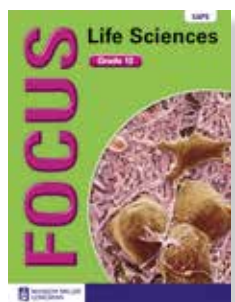


- The content is presented using clear and logical explanations.
- The Learner's Book includes plenty of worked examples and solutions to explain difficult concepts.
- Plenty of exercises that are structured to develop Mathematical Literacy skills are included.
- The Teacher's Guide includes a **FREE** Poster Pack.





Sciences



Focus Life Sciences



- Content presented in a term-by-term structure ensures careful progression of learning.
- A mind map and an introduction for each topic facilitate easy planning.
- Varied activities allow learners to test their Life Sciences knowledge and apply skills.
- Step-by-step guidance with detailed explanations enhance understanding.
- Relevant case studies allow learners to apply Life Sciences knowledge in real-life situations.
- Keyword features and a glossary help learners build their vocabulary.
- Detailed artwork stimulates interest and provides visual support for the learning process.

Key questions
maintain
focused learning

Clear, labelled illustrations
and diagrams enhance
understanding

Fact boxes provide extra
information to make
concepts clearer

Unit 5: Blood vessels

Unit 5: Key question

- What is the difference between arteries, veins and capillaries?

Key words

Artery – A blood vessel carrying blood from the heart to the tissues.

Endothelium – Layer of epithelium lining the blood vessels.

Pulse – The contraction and relaxation of arteries each time the heart beats.

Capillary – A tiny blood vessel that links arterioles to venules.

Vein – A blood vessel carrying blood from the tissues to the heart.

In a closed circulatory system, blood is carried around the body inside tubes called blood vessels. Blood vessels are named according to their structure, size and whether they are carrying blood away from or towards the heart. There are three types of blood vessels: arteries, veins and capillaries.

5.1 Arteries

Arteries carry blood away from the heart.

The walls of an artery consist of three layers: an outer fibrous layer, a middle layer made of elastic and muscular tissue, and an inner layer called the **endothelium**. The endothelium is a thin layer of flattened epithelial cells.

The lumen, or inner cavity, of the artery is relatively small. The blood flows through the artery under high pressure. As the heart beats, the blood is forced into the artery, causing the elastic, muscular wall to stretch and bulge. The bulging of the artery is what we feel as a **pulse**. Most arteries carry oxygenated blood, with the exception of the pulmonary artery.

Figure 7.13 Cross section through an artery

5.2 Capillaries

Capillaries are microscopically small. The walls of a capillary consist of a single layer of endothelium. Capillaries form a network that branches between the cells of the body. Capillaries are so narrow that blood cells squeeze along them in single file. This slows down the rate of blood flow, allowing time for the exchange of substances between the blood and the surrounding tissue. Substances move across the walls of the capillaries. Oxygen and nutrients move from the blood into the cells. Carbon dioxide and waste products move from the body cells into the blood. White blood cells are able to squeeze out of the capillaries to destroy germs.

Figure 7.14 Cross section through a capillary

5.3 Veins

Veins carry blood to the heart. The walls of a vein consist of three layers: an outer fibrous layer, a middle layer made of elastic and muscular tissue, and an inner endothelium. The lumen, or inner cavity, of a vein is large. The blood flows through veins under low pressure. Valves are found inside veins to prevent the backflow of blood. Most veins carry deoxygenated blood, except for the pulmonary vein.

Figure 7.15 Cross section through a vein

The different types of blood vessels are linked to the heart to form a circulatory system. Figure 7.16 shows that, during blood circulation, blood leaves the heart in arteries. The arteries divide to form **arterioles** and eventually tiny capillaries, which are found in the tissues of organs. The capillaries rejoin to form **venules** as they leave the tissues. The venules combine to form veins, which return blood to the heart.

Figure 7.16 Simple layout of blood vessels

Key words

Arteriole – A branch of an artery.

Venule – A branch of a vein.

Activity 6: Compare types of blood vessels

Specific Aim 1: 1.1, 1.2, 1.3; Specific Aim 2: 2.3

Work on your own.

The micrograph in Figure 7.17 shows a cross section through an artery, vein and capillary. Look at it carefully and do the following:

- Draw a table to compare arteries, capillaries and veins.
- Draw and label a scientific diagram showing a cross-section through an artery, a vein and a capillary. Use the micrograph and the illustrations to help you.

Figure 7.17 Cross section of an artery and vein with adipose tissue, a specialised type of connective tissue

Focus Life Sciences Grade 10 Learner's Book

Spot On Life Sciences



- Content breakdowns into terms and weeks according to CAPS make planning easy.
- Varied activities test learners' knowledge and their ability to apply new skills.
- Keywords feature help learners to understand new terms.
- Full-colour illustrations and photographs enhance learners' understanding.



Simple explanations make content easy to understand

Extension activities provide enrichment

Activities are structured to develop the required skills

Unit 7 Sensory receptors

All sense organs are modified to detect stimuli from both the internal and external environment. Sensory receptors can be extremely basic in structure – like those found in the skin – or they can be part of complex sense organs, such as the eye or ear. Each sense organ is structurally suited to receive certain environmental stimuli.

Receptors detect a variety of stimuli, such as light, sound, touch, temperature, pressure, pain and chemicals. When receiving stimuli from the external environment, receptors are used. These are sensory receptors in the body that react to stimuli from outside the body.

Interoceptors are sensory receptors that react to changes within the body. Some examples of such internal changes are pH (the degree of acidity or alkalinity of a solution can be measured with a pH value) and the concentration of glucose and oxygen in the blood. These receptors work to maintain a constant internal environment in the body. In this module, you will learn about the eye and the ear. You will learn about touch in Module 8 when the skin is discussed.

Form of energy stimulus	Sense organ	Receptor	Signal in body
sound	ear	hair cells in cochlea	nerve impulses
light	eye	rod and cone cells in retina	nerve impulses
pressure	skin	touch-sensitive nerve endings	nerve impulses
heat	skin	temperature-sensitive nerve endings	nerve impulses
toxic	skin	chemical-sensitive nerve endings	nerve impulses

Figure 5.20: Receptors in sense organs detect different kinds of sensory environmental stimuli.

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Activity 7.1 Observe sensory receptors of animals

20 minutes

Study the pictures of the different animals. Read the list of various sensory receptors and then match them to one or more of the animals in the pictures shown.

- Antelope covered with sensory hairs that are sensitive to the **phenomena** of the female (1)
- Eyes have a special reflective layer in the retina to help seeing in dim light (2)
- Enlarged ear flaps that gather and direct sound towards the ear, super sensitive (2)
- Sends out high-frequency sound pulses to detect echoes produced by prey (1)
- Body that is sensitive to vibrations, which makes it possible to sense other animals approaching (1)
- Large eyes adapted for nocturnal vision; pupils contract so as to be almost invisible (1)
- Nasal cavities lined with sensory cells to detect the smell of blood in water (1)
- A specialized tongue that "smells" the air to detect any changes which may indicate the presence of prey in the vicinity (1)

Total: 10 marks

Figure 6.27: These animals have specialized sensory receptors. (Clockwise from white shark, Antelope, mole, Bush baby, bat, fox)

Extension

Choose an animal (either one mentioned in Activity 7.1 or any other animal) and find out how their senses are structurally suited to make them efficient hunters or to help them avoid predators. Make a poster to show your findings. (20)

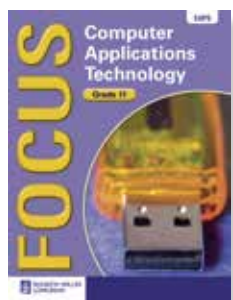
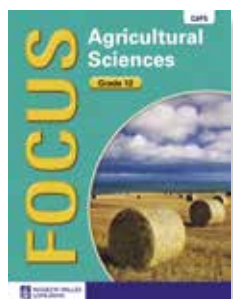
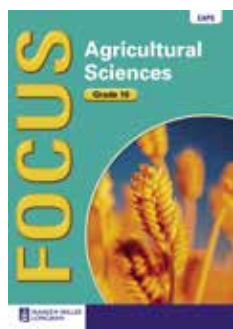
Keywords

phenomena: a substance secreted by an organism into the external environment that influences the behaviour of other members of the same species.

retina: a layer at the back of the eyeball containing cells that are sensitive to light

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Spot On Life Sciences Grade 12 Learner's Book



Focus Agricultural Sciences



- Each topic starts with a clear summary of what will be covered in the chapter.
- A summary at the end of each chapter recaps the key concepts taught and can be used as a quick revision guide.
- Practice questions enable learners to test themselves on the content that has been covered and build confidence with exam-style questions.
- The relevant assessments tasks are built in throughout the course at the correct time in the term.

Focus Computer Applications Sciences



- Content is presented using clear and logical explanations.
- There are many varied activities with lots of opportunities for assessments.
- Includes screenshots and helpful tip boxes for easy learning.
- A useful index, a glossary and language support boxes help learners to understand content.
- **FREE** learner's CD included.

Activity 14 Create a simple electronic form

There is a requirement for a survey on the Junior Dance that is featured in the newsletter you have been working on. Assume that all the Grade 8 and 9 learners in your school have access to e-mail at school so that you can create an electronic survey form to ask them their opinion on several items.

Junior Dance Survey	Grade	Class	Survey Date
1. Do you like the Junior Dance?			
2. How often do you go to the Junior Dance?			
3. How much do you like the Junior Dance?			
4. How much do you like the Junior Dance?			

- Create a new template file.
- Insert a table that has 4 columns and 4 rows. Type the text shown here in the first and third columns. Fill these cells with medium-grey shading. Make the text bold where shown.
- Insert a Drop-Down List Content Control for the each of the grade and class choices as shown in the example. Allow the learner to choose 8 or 9 for the grade and A to F for the classes. Change the instruction text as shown in the example.
- Insert a Tick Box Content Control for the theme option as well as the two DJ options as shown in the example. Note that the tick boxes must display a tick mark when selected and a cross when not.
- Insert a Rich Text Content Control for the field where you can enter a theme. Change the instruction text as shown in the example.
- Insert a Combo Box control for the food choices. Change the instruction text as shown in the example. Allow the following options:
Include in ticket price
Buy at dance
Bring own food
- Insert a Date Picker Content Control so that the learner is able to select the date on which they complete the survey. Change the instruction text as shown in the example and change the date format to 12 March 2013.
- Ensure that none of the controls in this form can be deleted.
- Protect this form template so that only the fields can be edited. Use the password AzyG2.
- Save this template as Ch_2_M_Ans.docx. Complete a copy of this survey with your answers and save the completed form as Ch_2_M_Completed Form Ans.

Unit 5 Templates and Help

5.1 Use templates

In Grade 10 you learnt how to use some basic templates such as letters, faxes and reports that are provided with Microsoft Word. Remember that a template provides a pre-set document layout including a theme and interactive fields. Microsoft Word 2010 has many templates, many of them only available online. These templates are well worth exploring because they provide you with the guidelines to create professional looking documents and can save you a great deal of time.

HOW TO: USE A TEMPLATE

Step 1: To start, you click on the File button and select the New option.

Step 2: You can choose from the templates that have been installed on your computer or from the wide range available from Microsoft Office Online. You will need an Internet connection to use the online templates. Downloaded templates appear in the My Templates folder. To use templates installed on your computer, you click on the Sample Templates icon.

Step 3: You then choose whether to open the template as a document or another template, and click on the Create button to open it.

Step 4: You fill in the fields as prompted by the template. Once they've all been filled in, the document will become a normal document that you then save as your own.

Unit 5 Key questions

- Which useful templates can be used in the work environment?
- How can I get help when I don't have Internet access?
- What are my options for getting help when I do have Internet access?

Hints and Tips

When you save a Microsoft Word 2010 template as an earlier document version with a .doc extension, the automated functions in the fields disappear.

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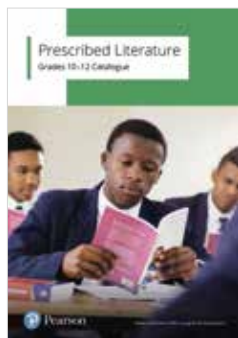
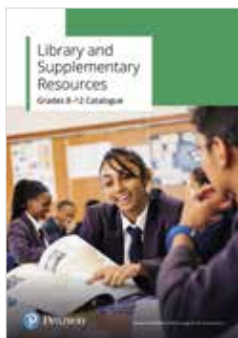
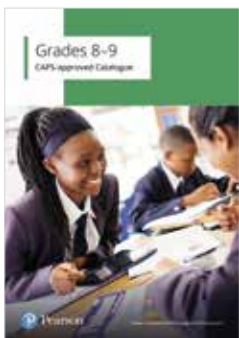
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