St Mary's DSG
Subject Choice Brochure
2026

"The future belongs to those who believe in the beauty of their dreams." — Eleanor Roosevelt

"A guide to help you choose wisely, dream boldly, and grow purposefully."

St Mary's DSG | Pretoria, South Africa

www.stmarysdsg.com

Content

2.8 French (Subject Head: Ms Monique Barnard)

2.9 Geography (Subject Head: Ms Jacqui Brown)

2.10 History (Subject Head: Mr David Wagner)

2.11 Information Technology (Subject Head: Mrs Lizelle Bothma)

2.12 IsiZulu (Subject Head: Mrs Sonto Mokoena)

2.13 Life Orientation (Subject Head: Mrs Mankoana Kgowana)

2.14 Life Sciences (Subject Head: Mr Anant Somanchi)

2.15 Mathematics and FS Maths (Subject Head: Mrs Cristina Nanabhay)

2.16 Mathematical Literacy (Subject Head: Mr Jason Schoeman)

2.17 Music (Subject Head: Mrs Carli Spies)

2.18 Physical Science and FS Physics (Subject Head: Ms Isabel Botha)

2.19 Sepedi (Subject Head: Mrs Daisy Phahlane)

2.20 Visual Art (Subject Head: Ms Belinda Donnelly)

1 Introduction

To assist learners and parents in their journey towards making informed decisions regarding the selection of subjects, the Centre of Growth provides the following services:

- Subject choice evaluations - where standardised tests are used to obtain knowledge about each student's aptitude, interest, and personality traits. In the recommendations, the following aspects are taken into consideration: academic report for Term 2, natural interests – linked to personal enjoyment, personality type and possible careers that will give fulfilment, ability in different study fields, as well as the requirements of different tertiary institutions.
- A comprehensive report is compiled and shared with each learner and her parents who opted to be included in the subject choice assessment to assist in the process of selecting subjects suitable for educational capabilities, interests and personality.
- While these assessments are not compulsory as they carry an additional cost, they are highly recommended. They provide valuable insight into each learner's aptitude, interests, and personality traits, which are then used to guide more confident and informed decisions.
- A subject choice evening where the process and assessment results are explained again. We also touch on university requirements for different courses.
- This process is aimed to prepare our learners for a successful future and therefore, recommendations made should be considered carefully.

This booklet is another way of assisting you in this very important decision-making process. The subject heads have compiled important information regarding their subjects. We hope that you will find the content not only interesting, but also helpful.

You are welcome to ask any staff member for more information regarding their own subject or contact Mrs Miller regarding specific subjects and keys. I am also available if you need any further clarification regarding recommendations or the impact of different choices.

Mrs Seago Maapola
Educational Psychologist

1.1 Our School, Our Subjects and Other General Information – Mrs Jomari Miller – Deputy Head (Academics)

1.2 IEB

St Mary's DSG writes the National Senior Certificate examination through the Independent Examination Board (IEB), an organisation that is highly respected both nationally and internationally. It is an assessment body that is accredited by Umalusi, the South African

statutory body responsible for quality assurance in school assessment. The IEB assessment focuses on the fundamental knowledge that underpins the curricula but then emphasises a deeper understanding of subject knowledge, substantiation of own views and multiple ways of looking at issues.

1.3 Requirements of the NSC:

A candidate must offer a minimum of seven subjects as follows:

- Two official languages, at least one at Home Language level and the second at a minimum of First Additional Language level (**At St Mary's DSG we offer English at Home Language Level and a choice of Afrikaans, Sepedi or IsiZulu at First Additional Language level or French Second Additional Language for immigrant candidates***).
- Life Orientation
- Mathematics or Mathematical Literacy
- Minimum of 3 subjects from the NSC approved subjects

Other NSC approved subjects **offered by St Mary's DSG**

- Accounting
- Business Studies
- Computer Applications Technology
- Consumer Studies
- Dramatic Arts
- French Second Additional Language
- Geography
- History
- Information Technology
- Life Sciences
- Music
- Physical Sciences
- Visual Arts

* *An immigrant candidate refers to a learner who enters the South African school system at a late stage and as a result thereof was not exposed to the full spectrum of South African official languages. Such a candidate will under certain conditions be exempted from the language requirements of the NSC.*

1.4 8th Subjects at St Mary's DSG

Subjects that could be offered **in addition** to the 7-subject package at St Mary's DSG are:

- Further Studies Mathematics Standard
- Further Studies Mathematics Extended
- Further Studies English
- Further Studies Physics (From Gr 11 onwards only)
- Practical Music Examinations (ABRSM, Trinity, UNISA)

Learners will be permitted to take an eighth subject (over and above the Further Studies programmes) from the start of their Grade 10 year on condition that they comply with the following conditions:

- In order to qualify for an 8th subject, a learner needs to have a minimum overall average of 80% at the end of the Grade 9 academic year.

- The following subjects can be taken as an 8th Subject at St Mary's DSG
  Business Studies
  Geography
  History
  Computer Applications Theory
  Music (minimum entry level requirement of Grade 4 Theory and Grade 4 Practical at the beginning of Grade 10)
- Subjects with an extensive practical component or subjects relying on mathematical skills will not be offered as an 8th subject e.g., Physical Sciences, Accounting, Visual Arts.
- Learners who wish to study a foreign language e.g., Spanish or German may take these as an 8th subject provided, they enrol for lessons with an outside teacher and sign the mixed provider contract prescribed by the IEB.
- As all eighth subjects will not form part of the morning academic school timetable, students need to make appointments to see the relevant teacher for guidance when he/she is available after school hours.
- The responsibility of collecting the course content from the teacher, lies with the learner.
- Learners need to timeously arrange dates with the subject teacher concerned when tests/assessments can be completed under the supervision of the teacher on afternoon duty.
- Should a learner wish to replace one of her core subjects with her 8th subject it MUST fit into the existing morning school timetable.

The school will provide each learner with notes, assignments, projects and any other portfolio work required. The school also undertakes to set and mark all tests and examinations relating to the additional subject.

Please be aware that St Mary's DSG reserves the right to terminate enrolment in an eighth subject should the learner fail to maintain a minimum average of 60% in her timetabled subjects.

There are cost implications involved in writing an extra subject at the end of matric, and the IEB will charge an additional fee, to the parents' account, relating to the 8th subject. **Parents will be liable for these fees if a learner withdraws after the final registrations have been finalised.**

1.5 Subject Choice Assessments and Recommendations

These are organised by the Centre of Growth, with the help of a private psychologist who specialises in Subject and Career Counselling.

1.6 Background Information and Guidelines to Subject Choices

The Grade 8 and 9 years provide insight regarding personal enjoyment of the subjects as well as the learner's natural ability. Subjects in Grades 8 and 9 are taught by specialist teachers and provide a good preview of the subject content in the senior grades. These are:

English
Afrikaans/Sepedi/IsiZulu/ Immigrant French
Life Orientation
Mathematics
Physical Sciences
Life Sciences
Geography
History
Economic Management Sciences (Business Studies in Gr 8 and Accounting in Gr 9)
Consumer Studies
Choice of 2 out of: Art, Drama, Introduction to Music or Advanced Music, French Second Additional Language, Digital Technologies
Computer Literacy – Non examinable

Certain subjects, because of their nature and difficulty level, require more specific guidelines:

Requirements for selecting Mathematics or Mathematical Literacy

In Grade 8 and Grade 9 all girls must participate in Mathematics.
If a learner has been unable to achieve a promotion result of > 40% at the end of Grade 9, she will be requested to continue with Mathematical Literacy from the beginning of her Grade 10 year at St Mary's DSG. Similarly, at the end of Grade 10 and Grade 11, learners with results of < 40% will be requested to change to Mathematical Literacy. Should a learner at the end of Gr 11 achieve < 45%, taking Maths Literacy as an 8th subject will be compulsory, with the purpose of providing a safety net for the matric examination.

Requirements for selecting Physical Science

To take Physical Science as a subject a > 60% promotion mark at the end of Grade 9 in both Mathematics and Physical Science is required.

Requirements for selecting Information Technology

To take Information Technology as a subject a > 60% promotion mark at the end of Grade 9 in Mathematics is recommended. Learners with a Mathematics result of < 50% will not be permitted to choose Information Technology in Grade 10.

Guidelines for selecting Further Studies courses

Further Studies Mathematics, Further Studies English and Further Studies Physics, are extension courses. These courses provide strong learners with an opportunity to study Mathematics, English and Physics in greater depth. Learners taking these subjects are often required to do self-study of content.

These courses are not part of the National Senior Certificate, results are certified separately by the IEB and cannot be used for entrance into universities (i.e., they do not form part of the APS score required by universities). It will be strongly recommended that a learner should re-evaluate their enrolment in the programme if any of their National Senior Certificate subjects falls below 70%.

Further Studies Mathematics Standard – Paper I

At the end of Grade 9, learners will be invited into the Further Studies Mathematics Standard programme. If a learner is unable to maintain a Mathematics average above 70%, she will be requested to return to Mathematics only. This can happen at the end of Grade 10 and again at the end of Grade 11. No girls will be permitted to enter Further Studies Mathematics Standard if they have a sub-70% result in Mathematics.

Further Studies Mathematics Extended – Paper I & II

At the end of Grade 9, learners will be invited into the Further Studies Mathematics Extended programme. If a learner is unable to maintain a Mathematics average above 75%, she will be requested to return to Mathematics only. This can happen at the end of Grade 10 and again at the end of Grade 11. No girls will be permitted to enter Further Studies Mathematics Extended if they have a sub-75% result in Mathematics.

Further Studies English

Further Studies English is offered in Grade 10, 11 and Grade 12. It is recommended that learners interested in the subject should maintain a 70% average for English. This can be monitored at the end of Grade 9, 10 and again at the end of Grade 11.

Further Studies Physics

To select Further Studies Physics, 75% for Maths and Physical Science at the end of Grade 9 is recommended. Further Studies Science is offered in Grade 10, 11 and Grade 12. It is recommended that learners interested in the subject should maintain a 70% average for Physical Science in Grade 10 and 11. This can be monitored at the end of Grade 10 and again at the end of Grade 11.

1.7 The Timetable

The St Mary's DSG timetable consists of 7 Keys. Applying the NSC requirements mentioned above, it is compulsory for learners to study English in Key 1, a choice of Afrikaans, Sepedi, IsiZulu or Immigrant French in Key 2, a choice of Mathematics and Mathematical Literacy in Key 3 and Life Orientation in Key 4. Learners then choose one subject from each of the remaining keys (Key 5, 6 and 7).

Keys are determined within the constraints of time, the timetable, and the staffing capacity. We attempt to offer a wide variety of possible subject combinations. It is, however, not possible to entertain combinations other than those mentioned below:

2026 Grade 10

Key 1	Key 2	Key 3	Key 4	Key 5	Key 6	Key 7
English	Afrikaans	Mathematics	Life Orientation	Physical Science	Physical Science	Physical Science
	Sepedi	Mathematical		Life Sciences	Life Sciences	Life Sciences
	IsiZulu			History	Accounting	Accounting
	Immigrant			Business Studies	History	Business Studies
				Dramatic Arts	Visual Art	Geography
				Information	Consumer Studies	French
						CAT
						Music

Note:

**Requirement with regards to Physical Science

Physical Science **may not be offered with Mathematical Literacy.**

Further Studies Programmes: Further Studies English and Further Studies Maths are offered in Grade 10, 11 and 12, while Further Studies Physics are offered in Grade 11 and 12. Further Studies Programmes entail afternoon and evening lessons, and occasional weekend sessions.

1.8 Subject Changes

The curriculum tends to see Grade 10, 11 and 12 as a block of connected study, with a progression of outcomes. Despite that, it is possible to change subjects at St Mary's DSG until the end of the Grade 10 year. Any subject change should be done through the Deputy Head Academics and requires the written consent of parents.

1.9 Academic Support

1.9.1 Extra classes

Extra lessons take place in the afternoon between 14:30 and 15:15. Some subjects, for example Mathematics and Physical Science, have scheduled group sessions for the different grades. Learners are encouraged to make use of the group sessions taken by different teachers, as a different way of explanation by a teacher other than your own can be beneficial.

1.9.2 Individual support

Learners are welcome to arrange individual extra lessons with any of the teachers. The use of outside tutors is not encouraged at St Mary's DSG.

1.9.3 IEB Accommodation

In exceptional circumstances the IEB allows accommodations (usually for extra time, sometimes spelling, electronic reader or a scribe) in the Matric examination for learners with either physical disabilities or a history of learning difficulties. The success of an application for such an accommodation is dependent on specific documentary evidence of prior support or intervention. This needs to have been collected over several years. It is important to let the Centre of Growth know timeously if any such difficulties exist.

1.10 Scholastic Achievement

Seven levels of competence are provided for:

Description of achievement	Marks / %	Rating Code
Outstanding	80-100	7
Meritorious	70-79	6
Substantial	60-69	5
Adequate	50-59	4
Moderate	40-49	3
Elementary	30-39	2
Not achieved	0-29	1

Calculation of Promotion Marks

In most subjects, a School Based Assessment will contribute 25% of the final promotion result and the final examinations 75%. Subjects that include a practical/performance/oral component may contribute up to a further 25%, making the final examination in such cases worth 50%.

Life Orientation is assessed through a combination of School Based Assessment tasks contributing 75% of the promotion mark and a written examination in Grade 10 and 11 or a Common Assessment Task in Grade 12 worth 25%.

Promotion requirements from Grade 10 through to Grade 12

For promotion from Grades 10 through to Grade 12, the minimum requirements are:

- 40% in English and two other subjects
- 30% for another 3 subjects

Pass requirements at the end of Grade 12/NSC

To qualify for further study at Higher Certificate Level	40% or more in English	40% or more in 2 other subjects	30% or more in 3 subjects
To qualify for further study at Diploma Level	40% or more in English	40% or more in 3 other subjects (not LO)	30% or more in 2 subjects
To qualify for further study at Bachelor's Degree Level	40% or more in English	50% or more in 4 Subjects (one of which could be English but not LO)	30% or more in 2 subjects
The language requirement for further studies at a South African institution is 30% for either English or Afrikaans at First Additional Language Level.			

1.11 Entry to Institutions of Tertiary Study

In April of their Grade 12 year, learners apply for **provisional acceptance** to universities with the results achieved at the end of Grade 11. The Grade 11 academic year is therefore of utmost importance. **Final Acceptance** to universities then needs to be confirmed with the results achieved at the end of matric.

Universities make use of an **Admission Point Score (APS).** These are not consistent across institutions. The APS Score is calculated based on a learner's achievement in any SIX recognised NSC subjects by using the NSC seven-point rating scale as seen in the table above. Life Orientation is excluded when calculating the APS.

Some institutions require prospective learners to write **National Benchmark Tests** that test core skills in language and numeracy.

To ensure entry into university it is critical that learners familiarise themselves with the specific institutional requirements for the courses of study they wish to follow. Different institutions have different requirements. Examples of requirements are:

- Specific language requirements
- A level of performance in LO
- Appropriate subject combinations
- Specific level of achievement in certain subjects

2 Subject Information (in alphabetic order)

2.1 Accounting (Subject Head: Mrs Sanet van Wyk)

What is Accounting?

Accounting is the language of business. With the use of Accounting, one can tell the story of a business to an audience (role players).

Accounting is relevant to our everyday activities, as we all use money to purchase goods and services. We all need a budget, and we all need to understand our own personal finances. You may reason that the computer normally handles the recording processes for you, but in order to understand what the computer is doing, it is necessary to perform the processes manually first.

Curriculum Outline

There is considerable overlap and continuity between the grades and work covered in the lower grades is incorporated into, and assessed throughout, the course.

Learners who are considering taking Accounting as a subject must begin with the course at the beginning of Grade 10. Learners will not be allowed to start Accounting at a later stage due to the 'building blocks' nature of the subject.

In Grade 10 we address and answer some of the following concepts and questions:

- How do you measure and determine the performance of a business?
- What is the difference between formal and informal bookkeeping systems?
- How do I record cash and credit transactions?
- Why is there a need for VAT?

- Why is computerised accounting important?
- Why is there a big difference between what my employer told me I am going to earn, and what I am actually paid?
- Understanding and preparing of basic financial statements.
- Managerial Accounting, which includes cost calculations of manufacturing businesses and basic budgeting concepts.
- Internal control and ethics.

In Grade 11 we address and answer some of the following concepts and questions:

- Do I make a profit or a loss when I get rid of my old car? Asset disposal.
- If I open my own small business, should I make use of the periodic inventory system?
- What if my best friend and I want to start a business together? Partnerships.
- How does a budget assist me in making sure I have enough money when I need it?
- How do I record the unfinished products of my factory?

In Grade 12 we address and answer some of the following concepts and questions:

- Do I understand how a company operates? What are shares and dividends?
- How can I use my cash budget to the business's benefit?
- Do my debtors pay me on time?
- How much is my stock worth and which valuation method is the best for my business?
- My business is making a profit but is it worthwhile, or should I investigate another investment?

Skills Taught in Accounting.

Lifelong learning is an integral part of growing, not only professionally but also personally. In the September 2010 edition of the magazine *Entrepreneur,* in a special feature on learning, Leigh Swartz, director at Tuesday Consulting, said: "In an employment market in which a degree is considered an absolute basic, additional courses and skills can provide an important differentiator, and a track record of proactively pursuing on-going education shows both a curiosity for learning new things and a willingness to make a personal investment in self-improvement." Studying Accounting teaches your daughter life skills, for example:

- Learning how to think clearly and logically to make the correct financial decisions.
- Self-discipline - if you do not handle your money in a disciplined manner your financial position could deteriorate, and you could end up bankrupt.
- Accuracy - if you are not accurate in, for example, determining cost prices, you are going to make a loss in your business.
- Learning to be analytical - you must analyse your results to make decisions regarding the future of your own finance.
- Communication skills.
- Role play.
- Numerical skills.
- Peer assessment.
- Brainstorming.

Assessment and Examinations

Tests and examinations are set with the aim of evaluating insight, encouraging expression of opinions by learners, and requiring analysis and interpretation of information. The underlying aim is to assist all learners to achieve their maximum potential, by providing a challenge to learners at all levels of ability.

They write two papers in the Accounting examination. Paper I focuses on the application of skills and Paper II focuses on problem-solving and analysis. The end-of-year examinations contribute 75% of the year mark.

Many of the Accounting activities are assessed by means of a portfolio or collection of work, for example: projects, presentations, simulations, case studies and debates. The portfolio constitutes 25% of the year mark.

Enrichment and Special Events

Our learners are invited to attend workshops hosted by auditing firms such as Deloitte's and PwC each year. In recent years, we had a record number of learners participating in the SAIPA Accounting Olympiad and Proverto Olympiad. Together with the Business Studies department we host an investment club. The investment club offers an exciting opportunity for learners to learn more about investing in shares. Using the Easy Equities application, it offers a safe and realistic experience where shares can be bought and sold depending on the performance of these shares.

Career Paths and Opportunities

• Chartered Accountant • Financial Accountant • Actuary • Agricultural Economist • Banker • Financial Manager • Business Economist • Business Manager	• Econometrician • Investment Analyst • Internal Auditor • Information Manager / Programmer / System Analyst • Legal Advisor • Marketing Manager • Personnel Manager • Industrial Psychologist	• Sports/ Recreation Manager • Statistician • Tax Consultant • Tourism / Hotel Manager • Trader • Risk analyst

If you intend to follow any B Com university course, it is in your own interest to have Accounting as a subject. The failure rate for first year learners without Accounting is exceptionally high. This learning area introduces many practical aspects of finances. Even if you study a very different course, for instance medicine, you still need to be able to handle and understand your finances.

The world has changed, and many jobseekers, professionals and students are also wondering if there is still a need for careers such as chartered accountants. According to a **government notice** sent out by the Department of Home Affairs in February 2021, the charted accountancy skill is cited on the South Africa scarce skills list. This means there is an exceptionally high demand for this unique type of skillset in the country. Businesses can no longer afford not to have proper financial management. The profession and the subject can no longer be considered

as just for "bean counters". The reality is that most accountants work in a business environment, which requires them to handle a broad range of responsibilities beyond taxes, including financial planning, analysis, forecasting, internal controls, and decision support. They are expected to be trusted advisors who can interpret the numbers to direct corporate strategy.

Accountants do not just speak the language of business – they are business.

2.2 Afrikaans (Subject Head: Mrs Hannelie le Roux)

Purpose of the Language Curriculum:

The purpose of the language curriculum is to enable learners to acquire knowledge, to express their identity, feelings, and ideas, to interact with others and to manage their world.

Course Outline

To broaden and deepen language competencies so that learners can listen, speak, read/view and write/present with confidence, which forms a basis for life-long learning.

- Use language appropriately and accurately in real-life contexts.
- Express and justify their own ideas, views, and emotions confidently in order to become independent and analytical thinkers.
- Listen, speak, write, and present the language with confidence and enjoyment.
- Use the language and their imagination to find out more about themselves and the world around them.
- Use language to access and manage information for learning across the curriculum.
- Use language as a tool for critical and creative thinking.

Overview of language skills and content:

- Listening and speaking
- Reading and viewing
- Writing and presenting
- Language

Assessment and Examinations

- There is continuous assessment of oral and written work in normal class situations.
- Writing is assessed continuously across a range of different tasks such as language and comprehension exercises as well as creative, transactional, and functional writing.
- Class tests and standardised tests are written regularly.
- Homework and assignments are given regularly.
- Projects are given termly.
- Examinations

Paper I	2½ hours	[100]
Paper II	2½ hours	[100]
Continuous assessment:	Portfolio	[100]
Oral		[100]

Special Events

- Afrikaans Olympiad
- Combined language day
- Pit Production: Prescribed book and poems

Professional Intelligent Theatre (PIT), a company based on vision, passion, and pure positivity, send a group of professional actors to schools to present a tailor-made performance of Afrikaans prescribed works. Performances are extremely energetic and are directed and choreographed by visionary directors.

2.3 Business Studies (Subject Head: Mrs Surina Erasmus)

Introduction

Business Studies encompasses business principles, theory and practice that underpin the development of entrepreneurial initiatives, sustainable enterprises, and economic growth.

The subject deals with the knowledge, skills, attitudes, and values critical for informed, productive, ethical, and responsible participation in the formal and informal economic sectors.

Learners can expect to gain knowledge of the different areas of a business and how they function together, as well as strategy and management skills.

Business Studies starts out comprehensively and allows learners to focus on a specific area later on, while covering a wide array of specialisations.

These include: **MBA – Business Studies – Areas of specialization**

Curriculum Outline

Business Studies is an elective IEB subject in Grades 10-12 and follows on from the basic skills taught as part of Economic & Management Sciences in Grades 8 and 9.

The subject attracts many top students and potential business leaders of tomorrow, with several of our alumni commenting on how well prepared they are when entering tertiary education. The advantage does not only apply to those that pursue further studies in the field of commerce but extends to all. This is because a general business background proves essential in assisting one to navigate life in general.

Business Studies is a practical subject and relates directly to the business world and current affairs. Learners are expected to read newspapers, watch the news and carry out practical work such as analysing articles, participating in business simulations and completing film

reviews, etc. They are exposed to case studies and required to analyse the real-life strategies that businesses develop to cope with situations confronting them.

Transferable Abilities Acquired from Business Studies

1. A comprehension of how associations work
2. Critical thinking
3. Creative problem solving

4. Coherent reasoning
5. Solid relational abilities
6. Effective time management
7. Cognitive Flexibility
8. Leadership and management skills
9. Comprehension of economic fluctuations and other outer changes influencing businesses and economies at large

Homework, Assignments and Projects

Assignments offer the opportunity to:

- Apply basic knowledge.
- Explore topics of interest.
- Extend skills of application or presentation in preparation for further learning. This will assist in ultimately presenting information in an accurate and professional manner.

Homework given helps learners to:

- Study for a test.
- Practically apply theoretical knowledge to enhance creativity and innovative problem-solving. skills.

Assessment and Examinations

Tests and examinations are set with the aim of evaluating insight, encouraging expression of opinions by learners, and requiring analysis and interpretation of information.

The Grade 12 portfolio component of the subject includes three alternate tasks OR a Research Task, together with the regular tasks consisting of two tests and the Preliminary examination.

The subject culminates in the writing of the National Senior Certificate Business Studies examination in November, which comprises of one three-hour paper.

Independent Examinations Board Web (ieb.co.za)

Enrichment and Special Events

The subject provides ample opportunities for enrichment and extension. This is important, as it solidifies the theoretical content in terms of real-life application.

Entrepreneurial Business Simulation

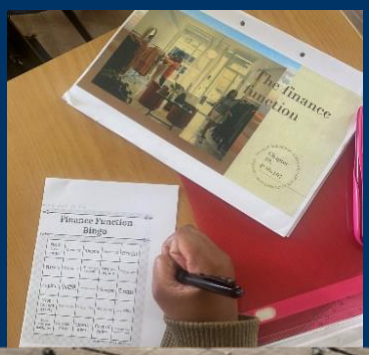
Proverto Olympiad

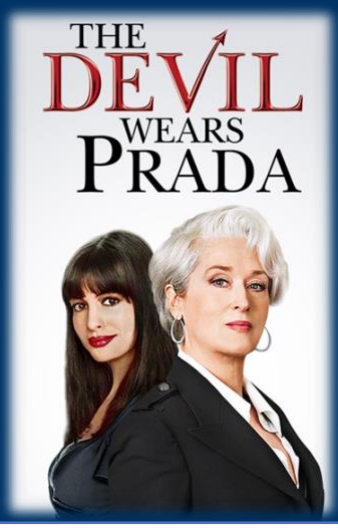
Film Reviews **Business Bingo**

Interactive games and competitions

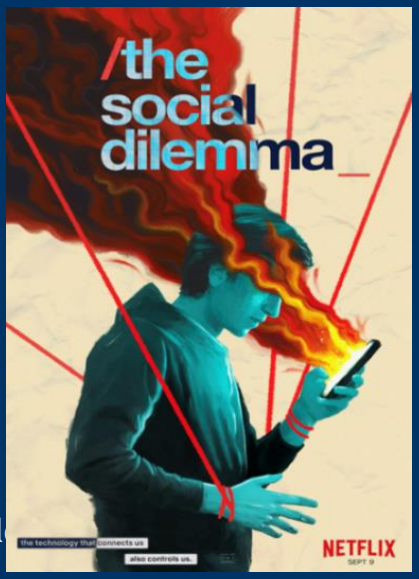
Field trips

Discussion Fridays





Source: https://www.google.com/search?q=devil+wears+prada+movie+poster



PROVERTO
Educational Publishers • Opvoedkundige Uitgewers
Guiding the leaders of tomorrow

2.5 Computer Applications Technology (Mrs Nomatter Mwal

What is Computer Applications Technology?

Computer Applications Technology is the study of the integrated components of a computer system (hardware and software) and the practical techniques for their efficient use and application to solve everyday problems. The solutions to problems are designed, managed, and processed via end-user applications and communicated using appropriate information and communication technologies (ICTs). ICTs are the combination of networks, hardware, and software as well as the means of communication, collaboration and engagement that enable the processing, management and exchange of data, information, and knowledge.

The Pillars of Computer Applications Technology

The specific aims of Computer Applications Technology

In the context of the 4th Industrial Revolution and 21st century thinking skills, here are just some of the outcomes that a Computer Applications Technology learner can expect to be competent in:

- using end-user software applications proficiently to produce solutions to problems within defined scenarios.
- Website creation and understanding through the HTML coding language.
- using the Internet and the WWW and understanding the role that the Internet plays as part of the global information network.

- finding authentic and relevant information, processing the information to draw conclusions, making decisions, and communicating the findings in appropriate presentation media.
- recognising the legal, ethical, environmental, social, security and health issues related to the use of ICTs and learning how to use ICTs responsibly.

2.5 Consumer Studies (Subject Head: Mrs Hanlie Podd)

Introduction

The subject Consumer Studies focuses on developing knowledge, skills, values, and attitudes in learners, to enable them to become responsible and informed consumers of food, clothing, housing, furnishings, and household equipment and to use resources optimally and in a sustainable manner. The subject also promotes the application of knowledge and skills in entrepreneurship and the production of quality marketable products that will meet consumer needs.

The Curriculum

The topics that are covered are:

- Consumerism
- Food and Nutrition
- Clothing and Fashion
- Housing and Interiors
- Entrepreneurship – production and marketing
- Food Production/Practical – the learners will, where possible, cook at least once a cycle.

The Consumer

What is a Consumer? Rights and responsibilities. Investigate channels for consumer complaints. Analyse the implication of taxes, interest rates and inflation on the management of available funds for acquiring food, clothing, housing, and furnishings.

Food and Nutrition

Suggest guidelines for the prevention of nutritional and food-related health conditions.

Identify consumer issues related to the impact of the selection and use of food on the natural and economic environment and suggest strategies for addressing the issues.

Clothing

Examine and describe current fashion trends for young adults.

Apply clothing theory to the selection of clothing for young adults.

Identify consumer issues related to the impact of the selection and use of clothing on the natural or economic environment and suggest strategies for addressing the issues.

Housing and Interiors

Explain the financial and contractual responsibilities of the occupants for different housing options and identify the role players involved.

Compare and evaluate the choice of large household equipment, and explain the financial, contractual, and environmental responsibilities when purchasing such equipment.

Discuss the responsible use of municipal services and the importance of waste control related to housing and household equipment.

Entrepreneurship and Production – this work is not tested in the final examination but demonstrated in the portfolio for the **Practical Assessment Task** which is moderated by the IEB each year.

The learners formulate a plan to produce and market a quality product - identify business opportunities, develop specifications for a product, control the quality of the product, develop a marketing plan, determine production costs, selling price, and survey the public to determine the acceptability of the product that was produced and marketed. The framework, rubric and the scenario for the Practical Assessment Task are provided by the IEB for Grade 12 each year.

Assessment

Formative assessment happens in the three alternate tasks and the Practical Assessment Task. Summative assessment occurs through the writing of tests every term, the July or preliminary examination and the November or final examination. Informal assessment tasks are given during lessons or for homework.

Enrichment

We are visited by a specialist in the field of nutrition or clothing or housing at least once a year to present workshops to our girls relating to their curriculum.
Periodically workshops are presented by outside institutions such as the Prue Leith Chefs' Academy or the Capsicum Culinary Studio.
Additional focus is placed on integrating technology, whether it is using a design application for Housing and Interiors or evaluating online shopping for Clothing.

Why Choose Consumer Studies?

So…… you have read a little about the aims and mission of our department, understood the contents of the syllabus and the weighting of the theory and practical components.
If you have the qualities, we are looking for and have always been interested in cooking, nutrition, fashion design, textiles, interior design and housing, marketing, and consumer needs, then you are the person who should be studying Consumer Studies. It is easy to identify those learners who have chosen it because they really want to, and those who have thought it to be an easy option!

Consumer Studies is a life skill - you will definitely use the skills you learn every day of your life. So, remember...you do not have to study Consumer Studies solely to enter the relevant job opportunity fields (of which there are many) but you can choose it because it will help you in your everyday life and, most of all, it is fun!

Girls who are set on very different career paths could take Consumer Studies at St Mary's DSG - from the prospective doctor or lawyer to fashion designer!

What qualities do I need?

Even though Consumer Studies is fun – remember it is also hard work!
Consumer Studies learners are those people who have a passion for food, clothing, housing, soft furnishings, and interiors and have high standards, values, and goals in life.

Tertiary Education

University of Pretoria
University of the Free State – B Consumer Science Degree
University of Potchefstroom
University of Stellenbosch
University of South Africa (Unisa)
Tshwane University of Technology – and the
Universities of Technology in other provinces.

Career Opportunities

(Acknowledgement to the University of the Free State)

The Entrepreneur:

The consumer scientist has the knowledge and skills to undertake an own business and become the employer instead of the employee. A product or service which consumers need can be marketed.

The Consultant:

The consumer scientist is well equipped to be a consumer consultant. She can advise the consumer on making a responsible selection considering both the need and the available resources. Manufacturers and large stores often use consumer consultants to advise their customers and give customer care service.

The Product Developer and Manufacturer:

Knowledge and skills are used to develop new products to satisfy the consumers' needs.

The Buyer:

This career involves buying for stores that supply foods, clothing, or household items. One could fly all over the world to attend fashion and commercial shows, to decide what will end up on our local store shelves.

The Marketer:

Knowledge and understanding of products and services, and skills used to design and manufacture products are used to promote and market these products and services.

The Quality Control Inspector:

The consumer scientist is well-equipped with the knowledge of the properties of a product as well as the methods to test these properties to become a quality control inspector. Manufacturers need quality control inspectors to keep quality at a set standard. Large stores and laboratories also employ quality control inspectors to support their buyers and consumer consultants.

The Lecturer or Teacher:

There are opportunities to become an educator in one of several subjects at universities, colleges, and schools.

Other career opportunities:

- Consumer Services and Event Management.
- Co-ordinate events within the fields of food or design.
- Marketing consumer products within a company.
- Public Relations and Media.
- Promoting products to consumers and dealing with advertising.
- Product Development and Quality Assurance.
- Developing new consumer products suited to their needs – this could be clothing, food, or furnishings.
- Promotion or Liaison Officer
  Introduce new / existing products of a wide variety to consumers. Demonstrate, develop, test and market products.
- Journalism
  Writing talent and creativity applied in the press, radio, and TV media on a full-time, part-time, or freelance basis.
- Research
  In the food, nutrition, clothing, and housing fields in the manufacturing industry and at research institutions.
- Dietician
  Register for private practice or in the service of hospitals / private companies.
- Clothing
  Clothing designer, dressmaker, merchandiser, fashion buyer.
- Housing
  Interior designer, housing consultant.

- Hotel / Restaurant / Catering
  Hospitality industry: manage game lodges, offer private catering.
  Food Services Management.
- Adult education
  Develop programmes, do extension work in government services or NGOs in community development.

2.6 Dramatic Arts (Subject Head: Mrs Janine Purchase)

NEWSFLASH -

Dramatic Arts Students Can Choose a Technical Path in Grade 12!

Grade 12 Dramatic Arts students have the exciting option of pursuing a *technical route* for their final practical mark. This alternative pathway allows students to direct a short film or stage play as part of their assessment.

Important to Note:

This option requires strong research skills and should only be considered by students who already possess, or are willing to develop, the necessary technical competencies. The programme supports interests in stage directing, filmmaking, photography, animation, and video editing.

What is Dramatic Arts?

Dramatic Arts is the study of how human experiences are represented in dramatic form for an audience. It aims to foster and grow creativity as a dynamic, diverse, and productive resource through dramatic communication, interaction, and storytelling.

This subject invites students to engage critically and imaginatively with stories from the past and present that reflect both the challenges and triumphs of being South African and a global citizen. Dramatic Arts provides a platform to explore truth, identity, and the human condition.

Key Skills Developed

By 2030, social and emotional skills will be among the *most in-demand* abilities in the workplace. Top employers in business and tech are already seeking creative arts graduates for the *transferable skills* they offer.

Here's how **Dramatic Arts** equips students with essential 21st-century skills:

- **Complex Problem Solving:** Analysing philosophical ideas that shaped theatre movements.
- **Critical Thinking:** Engaging with live theatre and evaluating dramatic texts.
- **Creativity:** Taking a performance from concept to stage.
- **Collaboration:** Working in groups and ensembles.
- **Emotional Intelligence:** Gaining insight into human emotion and behaviour through role-play and character work.
- **Judgement and Decision-Making:** Applying theoretical knowledge in practical scenarios.

- **Service Orientation:** Using Drama in applied contexts to address social issues and effect change.

Possible Career Paths

The competencies gained in Dramatic Arts are valued in a wide range of professions. The knowledge and skills developed in Dramatic Arts extend far beyond the stage. Whether a student pursues law, medicine, business, education, or science, the subject cultivates essential competencies that are highly sought after in any profession. Dramatic Arts trains students to think critically and communicate effectively—skills that are key to leadership, innovation, and success in any career path. Employers across industries increasingly value these interpersonal and creative abilities, making Dramatic Arts a future-facing subject that prepares students for a rapidly changing world. Fields of study may include:

- Bachelor of Drama or Theatre Studies
- Performing and Creative Arts
- Media and Communication Studies
- Film, Animation, and Design
- Cultural and Heritage Studies
- Applied Theatre and Drama Therapy

Potential careers:

- Creative Industries
- Voice Artist (for animation, audiobooks, gaming, dubbing)
- Scriptwriter (TV, film, radio, advertising, video games)
- Choreographer (especially if combining with Dance or Physical Theatre)
- Casting Director
- Talent Agent / Manager
- Arts Administrator / Producer (in festivals, performance venues)
- Performance Artist (in visual/performance art contexts)
- Education and Training
- Speech and Drama Coach
- Educational Content Creator (YouTube, TikTok, podcasts)
- Workshop Facilitator (youth, corporate, or community-based training)
- Academic Researcher in Performance Studies or Theatre History
- Health and Well-being
- Drama Therapist
- Arts in Health Facilitator (working in hospitals, wellness centres)
- Wellness and Mindfulness Coach (using performance techniques)
- Business and Communication
- Corporate Trainer (specialising in presentation, leadership, team building)
- Public Relations Officer
- Brand Storyteller
- Motivational Speaker
- Communications Strategist
- Cultural and Community Work

- Community Arts Facilitator
- Cultural Policy Advisor
- Youth Arts Coordinator
- Programme Developer (using drama for empowerment and education)

- Technology and Innovation
  - Virtual Reality (VR) Content Developer (for performance or training simulations)
  - Interactive Storytelling Designer
  - Gaming Narrative Designer (writing dialogue and story arcs for video games)
  - Digital Content Creator (reels, short films, digital theatre)

Who Should Choose Dramatic Arts?

Ideal students typically:

- Are eager to apply and extend their knowledge.
- Show practical ability and are open to growth through feedback.
- Have a passion for literature, performance, or film.
- Enjoy history, philosophy, and storytelling.

2.7 English (Subject Head: Mrs Liz Vincent)

(Compulsory)

Mission Statement

English is both the foundation and the cornerstone of effective communication. It is within this framework that every facet of communication is made possible both academically and socially.

At St Mary's DSG, it is our aim to equip our learners with the necessary skills to communicate in a number of interesting and relevant fields. We also strive to instil a love and enjoyment of the English language. The learners are taught a critical awareness of various texts, how language is

manipulated to alter style and meaning, and they are exposed to a wide variety of multi-media. Furthermore, with excellent English skills, may compete with confidence for world-wide career opportunities.

Curriculum Outline

Listening and speaking
The learner is able to listen and speak for a variety of purposes, audiences, and contexts.

Reading and viewing
The learner is able to read and view for understanding and to evaluate critically and respond to a wide range of texts.
Writing and presenting
The learner is able to write and present for a wide range of purposes and audiences using conventions and formats appropriate to diverse contexts.

Language structures and conventions
The learner is able to use language structures and conventions appropriately and effectively.

These skills are taught in an integrated manner with emphasis on the application of the skills and the development of insight and higher order cognitive processes.

Literature includes plays, novels and poetry, both international and South African/African. A holistic approach is used in the teaching of the various genres linking the relevant themes to the experiences of the learner. The use of drama and multi-media is of huge benefit in this regard. It is our wish that a love and appreciation of the linguistic and artistic beauty of literature will be instilled in learners as well as to develop a passion for reading that will enrich our learners' lives far beyond their school years.

Consequently, the English Department has launched the SORA OneDrive platform whereby our learners are able to access digital books and audiobooks. This innovative digital application makes reading more accessible, engaging, and interactive. In addition, we use Microsoft Teams as one of our collaborative platforms for remote online teaching. These are some of the innovative technologies we have introduced in preparing our learners for Industry 4.0 [Fourth Industrial Revolution].

Original writing incorporates various types of transactional writing as well as essay and poetry writing. The learners are encouraged to express themselves creatively whilst developing an individual style and "voice". Oral work includes dramatic presentations, media presentations, prepared and unprepared speeches, reading, debating, conversational skills and listening comprehensions. We aim to develop the learners' confidence and communicative abilities.

Visual literacy encompasses the study of a variety of films and visual media to enable learners to view with discrimination and to understand film technology and techniques. A critical approach to the viewing of films is a life skill. The learners are also exposed to various other

forms of audio-visual material such as podcasts, radio and television, advertising as well as propaganda techniques.

Homework, Assignments and Projects

Homework is set on a regular basis in order to supplement and extend classroom work. Each learner has a home reader in addition to the literature being studied in class. Projects are set within the different grades and will reflect different aspects of language use, media, and literature study. It is intended that research and presentation skills be acquired and that learners realise the joy and satisfaction of discovering information for themselves. The learners are given tasks and tests in order to learn, improve and reinforce their skills.

Career Paths and Opportunities

English is an important component of the entrance requirements for tertiary education. The most obvious career paths for learners of English are those careers where effective communication is vital:

Journalism
Drama
Teaching
Advertising
Public Relations
Television and Radio/Media

Special Events

The school runs many extra-curricular activities that help reinforce and develop the English skills learned in the classroom. During the course of the year, a number of exciting events take place in the English Department:

- English Olympiad course and examination run by The Grahamstown Foundation and SACEE
- Pretoria Public Speaking Competition
- Old Girls' Essay Competition
- Writers' workshops
- The Inter-House Public Speaking Contest
- Debating
- Poetry Week and the Rowena Navickas Poetry Competition
- SACEE Creative Writing Competition (from 2023)

In addition to these activities, there are opportunities to visit the theatre as well as visits to the school by theatre groups who perform plays and poetry collages on subjects relevant to the syllabus.

Further Studies English

Further Studies English is an additional English course for learners who are interested in extending

themselves through the study of English Literature. It will develop and stimulate learners in a broad academic enrichment course. Candidates must display greater knowledge and depth of insight than is required for English Home Language at the NSC level. Even though the skills acquired will make NSC English more accessible, they will demand more individual work than core English. It is seen as ideal but not exclusively for those learners who want to pursue an English or text-related discipline at tertiary level. The discipline of extensive individual reading and documenting of insights plus the practice of comparative thinking are beneficial in all fields of tertiary study.

Further Studies English is delivered in a different way to English Home Language which requires response to a single text in a question. Further Studies questions expect a response to incorporate understanding of multiple texts. Learners will be expected to display an independence of insight and an attitude of self-reliance. The learners meet once a week to be presented with topics and to discuss texts. Preparation and reading of all the given texts will be essential and attendance is vital. Written tasks will be completed in preparation for the examination but will not be used for formal assessment, only as guidance on development of skills. Sessions for Grades 10, 11 and 12 are scheduled late-afternoon or early-evening on Tuesdays and will be delivered either in-person or online, as arranged by the teachers facilitating the sessions.

The curriculum is embarked upon in the second half of Grade 10 and completed during Grades 11 and 12. It is recommended that learners interested in the subject should maintain a 70% average for English Home Language to be eligible to apply. The application process includes consideration of the overall English mark at the end of Grade 9 and at the end of the first term of Grade 10, with careful scrutiny given to scores for written assessments and examinations. Consideration of the literary worth of books read for leisure and the quality of a piece of writing analysing unseen literary or poetic text extension will inform the process of acceptance into the course. It is strongly advised that a candidate should re-evaluate their enrolment in Further Studies English if any of their National Senior Certificate subjects fall below 60% at the end of Grade 11.

A single three-hour examination worth 300 marks and comprising three essays is written at the end of the Grade 12 year:

- Question 1 focuses on a prescribed theme as evident in a selection of novels and plays.
- Question 2 is a comparative response to two of the prescribed groupings of poets and themes.
- Question 3 requires philosophical reflection on the candidate's individual and personal reading of works of literary fiction.

A minimum of 50% is required in this examination to be eligible for certification by the IEB. The certificate course is offered in association with the University of Stellenbosch and is internationally benchmarked. The Further Studies English result is certificated separately by the IEB and cannot be used for entrance into universities (i.e., it does not form part of the APS score required by universities).

At the end of three years of engagement with Further Studies English, the learner will be able to:

- Draw on the recommended texts, as well as other texts that have been encountered Independently, in written discourse.
- Apply knowledge to compare and contrast, analyse and critique both seen and unseen texts.
- Reflect philosophically on the texts studied.
- Establish connections between different genres, texts, and contexts.
- Structure written arguments and insights in a coherent manner using accurate textual references.

2.8 French (Subject Head: Ms Monique Barnard)

Why would it be relevant to take French as a subject?

More than 500 million people all over the world speak French. French is the second most spoken language in Africa, where no less than 33 countries are francophone. It is also a universal business language, and the fourth most used language on the internet. Therefore, French is an important language for any young South African to learn. Former President Mbeki and his government stressed the importance of French in the economic context of Africa, is home to the world's biggest French-speaking population. Consequently, South Africa has started opening its boarders and the country is welcoming more and more West African immigrants every year. Our country forms part of the bigger context of Africa and cannot develop outside this context, including the reality of francophone countries. Hence the answer as to why we should learn French in Africa begins to reveal itself.

Furthermore, there has been a considerable effort to promote the language in South Africa.
In 2018, Emmanuel Macron, the current president of France, vowed to promote French in Africa, since it holds access to endless opportunities. Therefore, any young South African having mastered basic communication skills in French has a considerable advantage when applying for a job in the South African market. Many well-known international and South African consulting firms advise their employees to take lessons in foreign languages such as Portuguese or French, as they understand the relevance of being able to communicate in another language and penetrate / understand other cultures.

In South Africa, French is a compulsory subject for learners wishing to pursue a career in International Relations and Diplomatic Studies. It is also useful for learners considering careers in Law, Engineering, Construction, Medicine ("Médecins sans frontières" / "Doctors without borders" is essentially a French organization), the Hospitality industry, Fashion and Design, Tourism and Commerce. In fact, French would be a welcome addition for any young employee applying for a job with a firm who has business projects in African francophone countries.

Learners who are passionate about languages might wish to pursue a career in interpretation, translation, or teaching/ lecturing in FLE (French Foreign Language). At all South African universities, there are currently postgraduate bursaries available for learners to pursue further studies in France. These are sponsored by the cultural section of the French embassy.

French can also be pursued at university as a choice subject, apart from specific course subjects your daughter will have to take, according to the field she will be studying in.

University Application in Europe

Taking French as a second subject for a Law, Medical, Engineering, International Politics or Electronics degree may be of practical use to learners. They could be awarded scholarships on the basis that they have a foreign language as part of their package.

Finally, there is a pleasure in discovering other cultures and in being able to communicate in a foreign language. Mastering a foreign language is a gift, similar to playing an instrument… a gift one continues to develop and enjoy for the rest of one's life.

Who should take French as a subject?

Apart from the reasons mentioned above, it is strongly recommended that your daughter only considers taking the subject if she has a talent for and enjoys language learning.

She should also have a strong command of her First Language. The learners do not need any prior knowledge of the French language.

The level expected by Grade 12 requires learners to have an ability to interpret, and show real insight into texts, both literary and unseen texts, such as articles taken from magazines. They should demonstrate the ability to communicate their ideas clearly, even if only at a basic level (Third Language). A learner who therefore struggles with her First and Second Additional Languages, or who does not really have the ability to interpret content and formulate ideas clearly, will become discouraged along the way.

Furthermore, learners who choose to pursue the subject need to understand that language learning is a continuous skill: in order to really make progress in and enjoy the subject, extra effort, such as reading French magazines, (which are readily available in class), making use of online websites, watching French movies, or listening to songs, is required. Those who are really passionate about the subject have shown themselves to excel, time and time again!

General course outline and outcomes

The French course comprises an oral, aural, and written component, with emphasis on mastering basic grammatical structures and concepts.

A communicative approach is used, supported by various textbooks (often accompanied by CDs) and online websites, to prepare the learners not only for the oral and written examination, but also for their continued interaction with French-speaking individuals.

In Grade 10, learners are taught how to talk about basic everyday themes such as introducing themselves and their family, daily routine, school, hobbies, holidays, future plans etc. They are also taught practical skills such as making reservations in a hotel, ordering food in a restaurant, inviting someone somewhere, interpreting visual stimuli, (adverts) etc.

In Grades 11 and 12, various other relevant themes are explored: the youth, health, sport, food, media, technology, travelling, friendship, teenage problems, and the environment, are some of the themes which are dealt with. These themes are explored via articles created for foreign language learning, listening exercises and comprehension texts.

The aim is mainly for learners to be able to understand authentic French and have a basic conversation by the time they reach Grade 12. In Grade 12, the curriculum leads to the inclusion of the study of literary texts, both prose and poetry, at matriculation level.

Enrichment

DELF (Diplôme d'Études en Langue Française, which means Diploma in the Studies of the French Language)

At St Mary's DSG, we encourage our senior students, from Grade 10 to 11, to sit levels A1, A2 and B1. Grade 12 students who have an average of more than 70% are encouraged to sit levels B1 and B2 of the DELF as this provides them with the opportunity to apply for bursaries to study in France. A B1 or B2 level in French is also required by some universities overseas.

The DELF is an international certification examination, certifying that learners can communicate on a specific level in French. It is very useful for university application and a plus on one's CV. The DELF examination is also internationally recognised and further qualifications can be obtained throughout the world on presentation of certification. The French department also offers training for the DELF examinations.

Additional information about DELF

The 6 diplomas that make up DELF and DALF are completely independent. This means that candidates can register for the examination of their choice, according to their level. At each level, 4 skills are evaluated: listening, speaking, reading, and writing.

All DELF and DALF qualifications are recognised and valid in about 170 countries worldwide. For more details, go to the CIEP website.

DELF B1: DELF B1 is for learners who wish to live/work in a French-speaking country or for those who already work in a French-speaking environment or for those who wish to develop their French language skills. At this level, the learner becomes independent. He/she can maintain interaction: he/she can understand and maintain a discussion and give his/her opinion. He/she can deal with situations likely to arise in daily life. All themes and assessments are related to professional situations and the world of work. **The DELF B1 is an ideal alternative to A2.**

DELF B2: At this level, the learner has a degree of independence that allows him/her to construct arguments to defend his/her opinion, explain his/her viewpoint and negotiate. The learner has a degree of fluency and spontaneity in regular interactions and can correct his/her own mistakes. **People who have passed the DELF B2 are exempt from taking language tests for entrance into French universities.**

[SOURCE: http://www.brasshouse.ac.uk/mfl-courses/int-quals/39-delf-dalf]

Independently organised exchanges and culture activities

Throughout the year, the French department hosts activities for the students to benefit from the more cultural and social parts of the French language. Outings are planned such as attending the Francophonie Festival and taking part in the Spelling Bee competition. Enjoyable soirées are

held to watch some authentic French films. Furthermore, the opportunity to collaborate with other schools that offer French as a subject also exist, as well as real-time interactions with French peers at a high school in the south of France. Last but not least, the students are informed about the opportunity to partake in an independent exchange program during school holidays.

Conclusion

Therefore, taking the subject will offer your daughter unique opportunities, both in South Africa and internationally, if she is passionate about foreign language learning and prepared to make the most of it.

2.9 Geography (Subject Head: Ms Jacqui Brown)

Geography is the meeting point of many disciplines, since all the Earth's systems, whether natural or human, interact across its surface. Geography provides a unique link between the natural sciences and humanities, creating the overview necessary for the full understanding and effective management of our planet, its people, and its resources. Geography caters for a wide variety of abilities and interests and is today an Environmental Science. It is an extremely topical, challenging, and enriching subject which brings together many relevant areas of study in one discipline, e.g., economics, meteorology, ecology etc. In addition, the important ability of decision making is nurtured.

With the introduction of the NSC, Geography has become more linked to ICT and in particular the use of Geographic Information Systems (GIS). South Africa is one of the first countries in the world to integrate Geographic Information Systems into the national curriculum. Our goal is to create a truly global awareness of the world around us and to understand and offer solutions to the issues that humankind faces.

Geography is:

Understanding

- the natural world.
- the interactions of people with each other and with their environment.
- the opportunities and constraints facing different communities around the world.

Learning

- to manage the world, its people and its resources.
- Skills for life - to enable learners to participate in building tomorrow's world and the creation of a sustainable future.

Geography in the NSC is based on:

- the study of themes and issues related to the natural, human, and economic systems of the world, the processes that shape them, their inter-relationships and evolution over time.
- the responsible and sustainable management of these systems.
- the development of a sound awareness of our environment and a sense of place at all scales, from the local to the global.
- the development of key skills, such as: the ability to collect, analyse and present information; planning and teamwork and responsible decision-making which considers environmental, economic and socio- political factors.

What do we study?
Learners follow courses based largely on the investigation of the physical and human environments. We focus on comparisons between the African continent and other places around the world, with an introduction to different forms of enquiry, fieldwork, research and problem-solving using the principals of GIS.

GRADE 10
1. Geographical skills and techniques: topographic maps, GIS
2. The composition and structure of the atmosphere
3. Plate tectonics, folding, faulting, volcanoes, and earthquakes
4. Population: structure, growth, and movement
5. Water resources: water in the world: oceans, flooding, water management

GRADE 11
1. Geographical skills and techniques: topographic maps, aerial photos, orthophoto maps, GIS
2. Global air circulation, Africa's weather, and climate
3. Rocks and landforms, slopes, mass movements
4. Development: differences, issues, and opportunities
5. Resources and sustainability: soil, energy

GRADE 12
1. Geographical skills and techniques: topographic maps, GIS, synoptic weather maps
2. Climate and weather: cyclones, local climate
3. Geomorphology: drainage systems and fluvial processes
4. Rural and urban settlement
5. Economic geography of South Africa

Geography and Careers
The study of Geography provides an essential base for a wide range of careers, including business management, administration and government, manufacturing, marketing, planning, tourism, environmental, resource or estate management, forestry or farming, engineering, education, and many others.

2.10 History (Subject Head: Mr David Wagner)

Why Study History?
A study of History builds the capacity of people to make informed choices in order to contribute constructively to society and to advance democracy. History, as a vehicle of personal empowerment, engenders in learners an understanding of human agency, which brings with it the knowledge that, as human beings, they have choices, and that they can make the choice to change the world for the better.

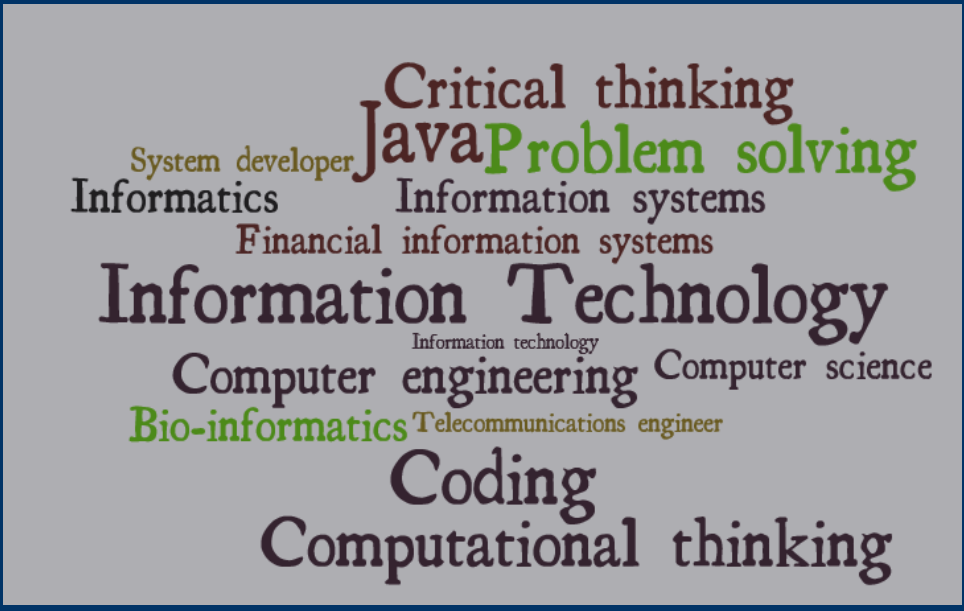
A Rigorous Process of Historical Enquiry:

- encourages and assists constructive debate through careful evaluation of a broad range of evidence and diverse points of view.
- provides a critical understanding of socio-economic systems in their historical perspective and their impact on people.
- supports the view that historical truth consists of a multiplicity of voices expressing varying and often contradictory versions of the same history.
- History is an excellent preparation for the world of work. Society values people who are:
    - open-minded
    - good at problem solving
    - able to pick out the essential from the trivial
    - independent thinkers.

Career Paths and Opportunities

History offers a preparation for careers in the legal profession; political science; social sciences; journalism; teaching and lecturing — and in fact, in any career where an appreciation of the past, and empathy with world problems and an ability to think clearly and concisely, would be valued.

2.11 Information Technology (IT) (Subject Head: Ms Lizelle Bothma)



What is Information Technology?

Information Technology is the study of the various interrelated physical and non-physical technologies used for the capturing of data, the processing of data into useful information and the management, presentation, and dissemination of data. Information Technology studies the activities that deal with the solution of problems through logical and computational thinking. It includes the physical and non-physical components for the electronic transmission, access, and manipulation of data and information.

In Information Technology a learner will:

- use appropriate techniques and procedures to plan solutions and devise algorithms to solve problems using suitable techniques and tools.
- understand and use appropriate communication technologies for information dissemination.
- appreciate and comprehend the various systems technologies used in the developing of a computer-based system.
- understand that all ICT systems are built upon software engineering principles.
- understand and use Internet technologies for various tasks.
- comprehend and apply the concepts of data and information management to understand how a knowledge-driven society function; and
- understand the social implications of ICTs and how to use ICT technologies responsibly.

What is computer programming?

- **analysing problems** into their smallest components,
- **designing a solution** for each part of a problem and combining them into a complete solution,
- **coding** that solution in a computer language,
- **testing** that the solution works under most normal circumstances.

These valuable skills (that are not available in any other school subject) teach logical thought processes that can be applied throughout one's life.

Computer programming is not an easily learned skill. It requires hours of practice, sitting at a computer, experimenting with different options to understand how they work. It is challenging but produces great rewards - the euphoria of getting a programme to work (after hours of toil) is a wonderful experience!

The hardest part of computer programming at school is learning one or more computer programming languages. There are many, many programming languages. Each language requires that its particular syntax is learned and can be applied. Once one programming language is well understood, it is easier to learn other programming languages, because many of the structures in the different languages are similar (conditional statements, loops, etc).

Who Should Choose IT As a Subject?

Learners with enthusiasm, enquiring minds, some logical thought processes, and the maturity to spend hours at a computer fine-tuning their programming skills should consider taking the subject.

The subject IT is not for the lazy learner! There is an enormous amount of work to be covered, and to become proficient, many hours of hard work are required. The rewards are directly in proportion to the effort expended! For those wanting extension, there is infinite scope beyond school level, in terms of books, and information on the Internet.

Career Paths and Opportunities

Information Technology specifically forms the basis for studies in Computer Science, Information Systems, Engineering, and the Business Sciences.

Bio-informatics
Business Information Systems
Computer Engineering
Computer Science
Financial Information Systems
Geographical Information Systems
Informatics
Information Systems
Information Technology
System Developer
Telecommunications Engineer

2.12 IsiZulu First Additional Language (Subject Head: Mrs Sonto Mokoena)

Mission Statement

With our ever-changing society, it is essential that we equip our young people in this country with the necessary skills to interact with as wide a population as possible. Since many learners who are native speakers of African languages attend English-medium education institutions, they lose their ability to converse and correspond in their home language. It is with this in mind that our mission statement is formulated. IsiZulu enables the learners to communicate effectively, both in verbal and written disciplines, in their personal, social, educational, and occupational environments.

Course Outline

To broaden and deepen language competencies so that learners can listen, speak, read/view and write/present with confidence that forms a basis for life-long learning.

- Use language appropriately in real-life contexts.
- Express and justify their own ideas, views, and emotions confidently in order to become independent and analytical thinkers.
- Use language and their imagination to represent and explore human experience.
- Use language to access and manage information for learning across the curriculum.
- Use language as a tool for critical and creative thinking.
- Express reasoned opinions on ethical issues and values.
- Interact critically with a wide range of texts.
- Recognize the unequal status of different languages and language varieties.

Assessment and Examinations

- There is continuous assessment of oral and written work in normal class situations.
- Writing is assessed continuously across a range of different tasks such as language and comprehension exercises as well as creative, transactional, and functional writing.
- Class tests and standardised tests are written regularly.
- Homework and assignments are given regularly.
- Projects are given termly.
- Examinations

Paper I	2½ hours	[100]
Paper II	2½ hours	[100]
Continuous assessment:	Portfolio	[100]
Oral		[100]

Skills Taught

- Basic language skills such as listening, speaking, reading, and writing and research.
- Language is the best tool for instilling life skills such as critical thinking, analysing, problem solving, initiative, etc.

Special Events

Annually we take part in a special isiZulu/Sepedi function where the culture and many of its practices are displayed, i.e., music, clothes, food, and dances. This event is always blessed by good attendance by both the girls and their parents. Guests from outside are usually invited to come and share this event with us.

Career Paths and Opportunities

- Teaching presents a definite career path.
- Translating, interpreting, journalism and public relations present many career paths.
- Lexicographers and terminologists, as this aspect is mostly needed by the Department of Arts and Culture as well as PANSALB.
- The theatre, film, radio, and television world are self-evident career opportunities.
- Doctors working as interns all over the country, as well as nurses, would be well equipped with the knowledge of an African language as part of the package.

2.13 Life Orientation (Subject Head: Mrs Mankoana Kgowana)

(Compulsory)

- Life Orientation guides and prepares learners for life, its responsibilities, and possibilities – it equips learners to solve problems and make informed decisions and choices.
- The main objective of Life Orientation is to provide an open and trusting space in which learners are able to explore real life issues that affect them and their needs to explore the complex society in which they have to make their way.

- Life Orientation focuses very strongly on critical thinking skills and the incorporation of multiple perspectives from each other, and teaches the girls to identify and use sound research sources that will be reflected in open discussions and formally structured discursive essays
  - Discussions: are facilitated in small groups or as a whole grade, grappling with different views, opinions, and beliefs. This is a very important process that is promoted as a critical part of the learner's personal growth, the fostering of mindfulness and establishing an authentic worldview.
- There is a very strong focus on developing research and analytical skills to assist in substantiating arguments and developing a critical approach to all media, online and academic sources. This also serves to attain an understanding of the importance of a well-rounded personal framework.

The Life Orientation curriculum consists of the following five CAPS topics:

Development of the self in society

- Development of personal identity, self-development and building lasting relationships with self, family, and peers
- Various and diverse influences in society that impact on the well-being of self and others
- Development of life skills to cope with stress, crisis situations and personal challenges that impact on lasting relationships with self, family, and peers
- Gender equity and the impact of gender specific challenges

Physical Education

- Participation in programmes that promote –
  - achievement of personal fitness and health goals
  - long-term engagement in community and/or playground and/or indigenous games or traditional and/or non-traditional sports that promote physical activity
- Safety issues relating to
  - fitness exercises
  - participation in community and/or playground and/or indigenous games or traditional and/or non-traditional sports that promote physical activity

Study Skills

- Reflect on the process of assessment and examination writing skills and apply these skills: revise own study skills, strategies, and styles
- Importance of obtaining the NSC: develop a study plan for Grade 12 and understand the importance of life-long learning

Careers and career choices

- Planning and preparation for life after matric: interviews, etiquette
- Reasons for and impact of unemployment
- Structures and processes that apply to the working world
- The value of work: how work gives meaning to life

Democracy and Human Rights including **social and environmental responsibility**

- Responsible citizenship
- The role of the media in a democratic society: electronic and print media
- Ideologies, beliefs and worldviews on recreation and physical activity across cultures and genders
- Community responsibility to provide environments and services that promote safe and healthy living
- Formulate a personal mission statement and evaluate its impact
- Explore laws and regulations relating to coming of age

LO Day

LO Day is a 2-day programme that takes place once every term for grades 8 - 11. This consists of 1 full day of Life Orientation 'theory' and 1 full day of Life Orientation 'practical'. These LO Days represent and include all the CAPS themes and topics (as stated above) which are presented in the form of outside speakers, workshops, and activities to make these topics interactive and practical for the girls to learn these necessary skills.

Career Guidance and Counselling

As a part of the Life Orientation curriculum, specific and focused career and guidance is provided to all our learners. This takes place in three formal phases:

Grade 11: Individual sessions are arranged during Term 2, starting with specialisation interests such as Health Sciences, Architecture, Engineering etc, before looking at all other areas of study. In Term 3 we look at general academic progress and the admission requirements of national and international universities to assist the learners in setting and achieving their academic goals for university application in their Grade 12 year.

Grade 12: Individual sessions are continued to examine the learners' final Grade 11 results in relation to each learner's future career goals. These sessions are repeated throughout the year as required by each learner to provide career-specific guidance and support. This includes application to international universities, colleges and/or structured gap year options.

2.14 Life Sciences (Subject Head: Mr Anant Somanchi)

Mission Statement

The study of Life for Life

Introduction

Every human being, regardless of who they are, should understand their own structure and function, the structure and function of other organisms around them, and an understanding of the environment in which they live. This, in essence, is Life Sciences - the study of Life.

Preamble

Life Science is a living subject and there are so many aspects that lend themselves to hands-on practical work. This is an enjoyable and fascinating side of Life Sciences, and it makes learning much more fun. It is easier for learners to relate to theoretical concepts after practical work has been done. The practical component therefore forms an integral part of every section of Life Sciences.

It is our aim to be relevant and to get the learners out into nature and enjoy the subject as much as possible!

Curriculum Outline

There are four knowledge areas considered in Life Sciences in Grades 10 to 12:

1. **Tissues, Cells, and molecular study**
   The Chemistry of life
   Cell structure, cell division, cancer, tissues
   Micro-organisms: viruses, bacteria, protists, and fungi
   Diseases and immunity
   Structure and significance of DNA and protein synthesis
   Discussion on issues relating to cloning, tissue sampling, DNA fingerprinting and applications to forensic science
   Meiosis
   Genetics, Inheritance and Genetic diseases

2. **Structures and control of processes in Life Systems**
   Aerobic and anaerobic respiration, photosynthesis
   Human nutrition, breathing organs and gaseous exchange
   Structural support and transport, excretion, nervous system, and endocrine system
   Asexual and sexual reproduction
   Human reproduction
   Issues relating to birth control and fertility
   Diseases related to all these systems

3. **Environmental Studies**
   Biosphere, biomes, and ecosystems. Living and non-living resources
   Human influences on the environment
   Sustaining the environment
   Air-, land- and water-borne diseases
   Understanding and reporting on a local environment issue
   Effect of pollutants on human health

4. **Diversity, change and continuity.**
   Biodiversity of plants and animals and their conservation. Threats to biodiversity
   Adaptations for survival - symbiosis, mutualism, commensalism, parasitism, competition, and predator prey relationships
   Diseases related to parasitic relationships
   Population studies
   Social behaviour and managing populations

The history of life on earth
Fossil studies
Origin of species and theory of evolution
Popular theories of mass extinction of organisms
Cradle of mankind

Skills taught in Life Sciences

The skills taught and developed are transferable and required in all walks of life.
There is an emphasis on both group and individual work in the following areas:

- Observation skills
- Measuring skills
- Recording skills
- Numeracy skills
- Skills relating to the development of logic
- Manipulation and handling of apparatus
- Procedural skills
- Interference skills
- Investigation skills
- Evaluation skills
- Discussion of moral and ethical issues

Enrichment and Special Events

- The course material is continually revised, and we aim to make the material interesting and relevant to our learners. We value excellence and aim to extend learners so that they can reach their own potential. There is use of laptop and Internet related notes and assignments on a variety of topics. Learners are able to research and discover information at an advanced level. They are able to access new information and read about cutting-edge discoveries.
- The application of what they have learnt in Life Science is also discussed with many other related topics such as cloning, biotechnology and disease conditions. These topics extend learner interest and knowledge and make them more aware of developments taking place in the world around them.
- We aim to discuss difficult issues with respect to the framework of the Christian ethos upheld by our school.
- Visits and outings are organized to places of interest depending on topics that are being studied. Some of the activities we have organised have been trips to Pretoria University to see the scanning and transmission electron microscopes, ecological fieldtrips to Rietvlei Nature Reserve, visits to Maropeng, the Sterkfontein Caves and the WITS Origins Centre and tours of Rietvlei Water Treatment Plant, De Wildt Cheetah Centre, and FABI.
- Guest speakers are also invited to assist the learners in making choices about careers in the various scientific fields and to hear about actual research that is taking place.

Laboratory Facilities

- All lessons are held in multi-purpose laboratories designed to be very user-friendly. The laboratories are fully equipped. Intervention and help are offered when needed. There is a full-time laboratory technician and a laboratory assistant who help with the preparation and setting up of practical tasks.

- All laboratories have data projectors and interactive smartboards to enrich learning. Learners are given opportunities to give presentations to the class on topics relevant to the syllabus. The Life Science Department has bought interactive software packages that staff, and learners use during lessons. Some interactive software is loaded onto individual laptops, so all learners are able to revise at home using this software.

General

The study of Life Sciences is either required or strongly recommended for the study of the following careers. It must be stressed that many of the following careers require Mathematics and Physical Science.

- *Medical Science*
  Doctor, Dentist, Geneticist, Medical Technologist, Pathologist, Pharmacist, Nurse, Physiotherapist, Dietician, Occupational and Speech Therapist

- *Environmental*
  Ecologist, Horticulturist, Game-Ranger, Wildlife Management, Forestry

- *Veterinarian Science*
  Veterinarian, Veterinary nurse

- *Food Technology*
  Dietician, Researcher, Brewer

- *Education*
  Teaching, lecturing, research

- *Biotechnology*
  Genetics, Plant and Animal Breeding, Agriculture

2.15 Mathematics (Subject Head: Mrs Cristina Nanabhay)

What is Mathematics?

What is Mathematics? Mathematics is a language that makes use of symbols and notations for describing numerical, geometric, and graphical relationships. It is a human activity that involves observing, representing, and investigating patterns and qualitative relationships in physical and social phenomena and between mathematical objects themselves. It helps to develop mental processes that enhance logical and critical thinking, accuracy and problem solving that will contribute to decision making. Mathematical problem solving enables us to understand the world (physical, social, and economic) around us, and, most of all, to teach us to think creatively.

Specific Aims

- To develop fluency in computation skills without relying on the usage of calculators.

- Mathematical modelling is an important focal point of the curriculum. Real life problems should be incorporated into all sections whenever appropriate. Examples used should be realistic and not contrived. Contextual problems should include issues relating to health, social, economic, cultural, scientific, political, and environmental issues whenever possible.
- To provide the opportunity to develop in learners the ability to be methodical, to generalise, make conjectures and try to justify or prove them.
- To show Mathematics as a human creation by including the history of Mathematics.
- To promote accessibility of Mathematical content to all learners. It could be achieved by catering for learners with different needs.
- To develop problem-solving and cognitive skills. Teaching should not be limited to "how" but should rather feature the "when" and "why" of problem types. Learning procedures and proofs without a good understanding of why they are important will leave learners ill-equipped to use their knowledge in later life.
- To prepare the learners for further education and training as well as the world of work.

Specific Skills

To develop essential mathematical skills the learner should:

- develop the correct use of the language of Mathematics.
- collect, analyse, and organise quantitative data to evaluate and critique conclusions.
- use mathematical process skills to identify, investigate and solve problems creatively and critically.
- use spatial skills and properties of shapes and objects to identify, pose and solve problems creatively and critically.
- participate as responsible citizens in the life of local, national, and global communities; and
- communicate appropriately by using descriptions in words, graphs, symbols, tables, and diagrams.

Curriculum Outline: Mathematics

PAPER 1	
Description of content	Marks (Approximate Weighting of Content Area)
Algebra	25 ± 3
Patterns and sequences	25 ± 3
Finance, growth, and decay	15 ± 3
Functions and graphs	35 ± 3
Differential calculus	35 ± 3
Probability	15 ± 3

TOTAL	**150**

PAPER 2	
Description of content	Marks (Approximate Weighting of Content Area)
Bookwork (included in any of the topics listed below)	6 maxima
Statistics	20 ± 3
Analytical geometry	40 ± 3
Trigonometry	50 ± 3
Euclidean geometry and	40 ± 3
TOTAL	**150**

Assessment and Examination

Assessment in Grades 10, 11 and 12 is modelled on the assessment structure in Grade 12. Learners are expected to complete summative assessments, as well as portfolio assessments. 25% of the final mark is made up from year work, and the final examination comprises 75% of the result.

Mathematics focuses on formal, more abstract mathematical concepts. The current Mathematics syllabus assesses learners' abilities equally in Algebra, Graphing, Trigonometry and Geometry. Deductive thinking, required particularly in Euclidean Geometry, is a prerequisite for many courses at tertiary level.

Mathematics is cognitively demanding, and application requests to tertiary institutions are rarely successful if a learner is unable to achieve an average over 50% in Mathematics. In such cases, where a learner struggles to meet the 50% minimum, it is preferable to take Mathematical Literacy over Mathematics. *(See under Mathematical Literacy for possible career options with this subject.)*

The advanced level of Mathematics (**Further Studies Mathematics**) is designed for learners who have a real passion for the subject. It is a three-year course, designed for learners who enjoy and achieve excellent results in Mathematics and would like more challenges in the subject.

A learner must have displayed an ability to apply mathematical concepts in unknown situations. A good understanding of mathematical concepts is required as well as the ability to make logical deductions. No learner should consider participating in **Further Studies Mathematics** unless she has a positive attitude; a positive mathematical self-image; determination to succeed; perseverance and self-discipline; and the willingness to take responsibility for her own achievements. A work ethic of a very high standard is clearly essential. As **Further Studies Mathematics** is an extra subject, it demands more work and more time.

Further Studies Mathematics (Standard and Extended)

DEFINITION

Further Studies Mathematics is an extension of Mathematics and is similarly based on the following view of the nature of the discipline.

Further Studies Mathematics enhances mathematical creativity and logical reasoning about problems in the physical and social world and in the context of Mathematics itself. All mathematics is a distinctly human activity developed over time as a well-defined system with a growing number of applications in our world. Knowledge in the mathematical sciences is constructed through the establishment of descriptive, numerical, and symbolic relationships. Further Studies Mathematics also observes patterns and relationships, leading to additional conjectures and hypotheses and developing further theories of abstract relations through rigorous logical thinking. Mathematical problem solving in Further Studies Mathematics enables us to understand the world in greater depth and make use of that understanding more extensively in our daily lives.

PURPOSE

In a society that values diversity and equality, and a nation that has a globally competitive economy, it is imperative that within the Further Education and Training band students who perform well in Mathematics or who have a significant enthusiasm for Mathematics are offered an opportunity to increase their knowledge, skills, values and attitudes associated with Mathematics, and so put them into a position to contribute more significantly as citizens of South Africa.

Further Studies Mathematics is aimed at increasing the number of students who through competence and desire enter Higher Education to pursue careers in mathematics, engineering, technology, and the sciences.

Further Studies Mathematics is an extension and challenge for students who demonstrate a greater than average ability in, or enthusiasm for Mathematics. The greater breadth of mathematical knowledge gained, and the depth of mathematical processes developed through being exposed to advanced mathematics ideas enhances the student's understanding of Mathematics both as a discipline and as a tool in society. This broadens the student's perspective on possible careers in mathematics and develops a passion for and a commitment to the continued learning of mathematics amongst mathematically talented students.

Further Studies Mathematics, although not required for the study of mathematics, engineering, technology, or the sciences in Higher Education, is intended to provide talented mathematics students an opportunity to advance their potential, competence, enthusiasm, and success in mathematics so that it is more likely that they will follow mathematically related careers.

The following are some of the career fields that demand the use of high-level mathematics:

- Actuarial science
- Operations research
- Mathematical modelling
- Economic and Industrial sciences
- Engineering
- Theoretical and applied physics

- Statistical applications
- Academic research and lecturing in mathematics, applied mathematics, actuarial science and statistics
- Data Scientist

MODULES

PAPER I (STANDARD)
Module 1A: Calculus
The student can establish, define, manipulate, determine, and represent the derivative and integral, both as an anti-derivative and as the area under a curve, of various algebraic and trigonometric functions, and solve related problems.

Module 1B: Algebra
The student can represent, investigate, analyse, manipulate, and prove conjectures about numerical and algebraic relationships and functions, and solve related problems.

PAPER II (EXTENDED)
Module 2: Statistics and Probability
The student can represent, manipulate, analyse, and interpret statistical and probability models, and solve related problems.

OR

Module 4: Matrices and Graph Theory
The student can identify, represent and manipulate discrete variables using graphs and matrices, applying algorithms in modelling finite systems.

2.16 Mathematical Literacy (Subject Head: Mr Jason Schoeman)

Mathematical Literacy is the alternative to Core Mathematics offered in Grades 10, 11 and 12. The National Curriculum Statement for Mathematical Literacy states that the purpose of the subject is to provide learners with an awareness and understanding of the role that mathematics has in the modern world.

Mathematical Literacy focuses on the areas in real life where mathematics is needed i.e., on problems and situations related to daily life contexts in which mathematics is imbedded. Learners learn practical skills that will enable them to find concrete solutions to numeric, spatial, and statistical problems associated with the everyday challenges of life.

It is inappropriate to compare Mathematical Literacy with the old Standard Grade Mathematics, as it is an entirely different subject with its own distinctive curriculum and purpose. The curriculum has been designed to develop skills necessary for learners to gain confidence, become self-managing persons and improve chances of success in dealing with financial and other quantitative demands of the modern world. Teachers will aim to foster an approach of curiosity and exploration in order to encourage learners to enjoy, appreciate and value the subject. Learners are encouraged to explore their own ways of thinking to develop individual methods and strategies for practical problem-solving situations.

The content of Mathematical Literacy is designed to enable learners to handle, with confidence, the Mathematics that affects their lives. However, Mathematical Literacy should not be taken by those learners who intend studying disciplines at a tertiary level that are mathematically based, such as the Natural Sciences or Engineering.

Mathematical Literacy is suitable for:

- Learners who wish to proceed to disciplines within the Social and Life Sciences sector, as Mathematical Literacy will enable them to deal effectively with mathematically related requirements in these areas.
- Equipping mathematically less able learners with the skills and knowledge needed to be able to interact confidently with the mathematics encountered in everyday situations.

It is sometimes perceived to be inferior to study Mathematical Literacy over Mathematics, but this perception arises out of a misunderstanding of what is acceptable and what is interpreted as 'clever'. Not all girls have been granted the same talents, and it is imperative to focus on the subject that embraces each individual's strengths, as their career post-school (and university) will be chosen based on these strengths. It does not help to insist on the choice of Core Mathematics – especially when student's confidence is low, their results consistently below 50% and their passion not within the bounds of the subject. For further information with regards to career opportunities with Mathematical Literacy, feel free to visit:
https://careerplanet.co.za/what-can-degrees-can-i-do-with-maths-literacy/
https://careerplanet.co.za/ncv-subject-choices-from-grade-9-with-or-without-maths-literacy/

Curriculum Outline: Mathematical Literacy

	Paper 1	**Weighting**
Application topics	Finance	60%
	Data Handling	35%
	Probability	5%

	Paper 2	
Application topics	Maps, plans and other representation of the Physical world.	40%
	Measurement	55%
	Probability	5%

2.17 Music (Subject Head: Mrs Carli Spies)

Music is the fourth great material want of our natures - first food, then raiment, then shelter, then music – Christian Bovée

Introduction

The Music Department at St Mary's DSG is committed to guiding all learners who become involved in music towards discovering their full potential, thereby enabling them to develop into well-balanced and able young musicians who find joy and fulfilment in their art and in their lives. A common misconception exists that selecting Music as a subject in Grades 10-12 lacks career utility for students not pursuing a direct musical profession. However, the music industry offers a diverse array of career paths beyond performance and teaching, including fields such as Sound Engineering, Music Therapy, Marketing and Theatre Management. It has also been proved that Music has a far-reaching influence on the development of a student on various levels. It stimulates creative thinking and, most importantly, improves self-discipline. These life skills are important for furthering any career.

Subject Music

The Subject Music curriculum is muti-faceted and offers a broad-spectrum course, designed to serve the abovementioned purpose to the full. To enrol in Subject Music in Grade 10, learners are generally expected to have successfully completed Subject Music in Grades 8 and 9. Nevertheless, exemptions will be considered. This occurs when a learner presents alternative practical and theoretical qualifications, obtained independently of the school curriculum, which, upon assessment, are deemed to adequately prepare them for the rigour of the Grade 10 Music syllabus and beyond.

If a student chooses to take music in Grade 8 and 9, she may choose to do Introduction to Music (Class Music Choice 1) or Advanced Music (Choice 2). The Introduction to Music curriculum is designed to cater for learners who have an interest in learning about music, but do not play an instrument or have little to no experience in Music Theory. The Advanced Music curriculum is designed for learners who are interested in learning about music and playing a musical instrument. Selecting Advanced Music requires concurrent study and practical application of a musical instrument or vocals.

Concepts dealt with in the Introduction to Music are:

1. Basic Music Theory
2. Music Appreciation
3. Music Technology

Concepts dealt with in Advanced Music are:

1. Music Theory
2. Music Appreciation
3. Music Technology
4. Practical Musicianship
    a. Learners have to take lessons in any practical instrument of their choice, including vocals. These lessons take part after the academic school day, at an extra cost to the parent. Grade 10-12 must have at least 1 hour of practical teaching per week, or 45 minutes in Grades 8 and 9.

Curriculum Outline

The Subject Music Course for Grades 10 - 12 (as prescribed by the IEB) has three outcomes:

1. **Music performance and improvisation**
   The learner will be trained to:
   - Demonstrate technical control over her chosen instrument. To assess this, she will be given sight-reading, an aural test as well as scales and technical exercises. These will be assessed in a formal practical examination each term.
   - Perform a minimum of three solo pieces from a registered music examination board, as well as one ensemble piece. This will also be assessed in a formal practical examination each term. She will be expected to perform one solo piece in Term 1, two solo pieces in Term 2 and three solo pieces as well as one ensemble piece in Term 3.
   - Write programme notes for examination pieces.
   - Improvise stylistically with traditional, indigenous, or contemporary scales and modes.

2. **Music Literacy**
   - The learner will be trained to:
     Analyse notated and / or recorded music visually.
   - Compose a musical work and write a melody.
   - Master general theory of music and notation.
   - Use available technology to compose, arrange and present a musical work.
   - Apply the knowledge of harmony to harmonise a melody in four parts.

3. **Music Knowledge and Analysis**
   The learner will be trained to:
   - Critically evaluate representative examples of music.
   - Compare different styles of music.
   - Conduct research.

Positive aspects

There are several positive aspects that the curriculum content offers:

- A far more inclusive approach that allows anyone who truly desires to participate in Music as a subject, to do so.
- A wider knowledge of Music as a whole. The subject caters for a wide variety of styles and genres, including Jazz, Indigenous Music, Rock and Pop, Musicals and Western Classical music.
- The subject content is current. Aspects such as Music Technology, Recording, Music Rights and Music Promotion, Marketing and Events Organization are included in the curriculum.

Skills Taught

Through its practice, Music engenders sought-after qualities that are synonymous with principles of true education. These become life-long and universally valuable assets:

- Analysis
- Creative thinking
- Computer literacy

- Concentration
- Co-ordination
- Emotional development
- Fine motor control
- Humanity
- Insight
- Instrumental performance
- Self-confidence
- Self-discipline
- Time management

Career Paths and Opportunities

- Commercial music: composition and performance
- Music technology
- Recording engineering
- Sound engineering
- Music education
- Musicology
- Music management
- Performance: solo and group

Conclusion

The Subject Music Department at St Mary's DSG aspires to instil confidence and diligence through what is undoubtedly a challenging but most rewarding course.

Education in music is most sovereign, because more than anything else rhythm and harmony find their way to the inmost soul and take strongest hold upon it, bringing with them and imparting grace (when) one is rightly trained - Plato

2.18 Physical Science (Subject Head: Ms Isabel Botha)

What is Physical Science?

Physical Sciences consist of Chemistry and Physics.
Chemistry is the study of the composition, structure, and properties of substances and of the transformations that they undergo, while Physics is a study of how energy and matter relate to each other.
A significant part of the work is rather abstract, especially in Chemistry. Physics, especially, relies heavily on mathematics. In both Physics and Chemistry, linguistic skills are of extreme importance to understand and explain complex concepts.

Curriculum outline

Some topics that will be dealt with in physics include mechanics, waves and electricity and magnetism.
Topics in Chemistry include chemical bonding, intermolecular forces, stoichiometry, organic chemistry, acids and bases, electrochemistry, rates of reaction and equilibrium.

Skills taught

Mechanical insight and the ability to apply knowledge and skills to new problems are essential to deal with the requirements in Physics. Translation of knowledge, like representing data in tables and on graphs, and interpreting graphs, are important skills taught that can be applied in many other fields.

Chemistry relies a great deal on the ability to understand theories and models, which are abstract by nature.

Skills learned and knowledge gained in Physical Science will enable girls to deal a lot better with our highly technological world, whether they follow a career in sciences, or not.

Practical

Both Physics and Chemistry have practical components that form an integral part of the subject. In Grade 12, practical investigations contribute 40% to the portfolio mark. Compulsory practical investigations are one on physics and the other on chemistry. Each of these will contribute 20% to the portfolio mark.

In Grades 10 and 11 as many practical investigations as possible, given the curriculum and time constraints, are done to enrich the subject as well as to prepare students for the practical investigations in Grage 12.

ONLINE RESOURCE - SIYAVULA

The Physical Science Department has invested in an online learning system powered by Siyavula. The subscription is for all Grade 10, 11 and 12 Physical Science learners at St Mary's DSG.

Each learner is given an access code and should sign up to the programme.

Siyavula Practice has been developed locally by scientists, educational experts, and teachers to help your daughter practise various exercises, concepts, questions, and assessments more efficiently.

Individual Practice

Learners can log onto the website at any time and select any topic to practice. There is no limit to the number of exercises that can be completed. They can log onto the website from any device, anywhere, and provided they are using the Vodacom or MTN network, the data used is free.

Intelligent Practice

"Intelligent Practice" works with one goal in mind, to help the student develop mastery of their subjects. The system generates questions, automatically marks them, and gives the learner immediate feedback as well as a detailed solution, highlighting possible pitfalls and misconceptions. Adaptive intelligence means that the programme uses maps of the IEB curriculum to adjust the practice experience and provide a set of questions unique to each learner's specific needs.

Learner Dashboard

Each learner's effort, progress and mastery can be monitored online. Parents can also monitor their daughter's performance from the dashboard. The dashboard can also be used to set goals and select areas requiring practice.

Assignments

The programme provides the teachers with a platform for developing assignments and sending them directly to the class. Learners can then submit the answers online and teachers are provided with detailed results for each learner.

The analytical data Siyavula collects is useful in informing teachers exactly where each student is in their learning process, as well as at what rate the student is learning. It also displays the student's current level of mastery.

"Our programme gives the learner immediate, detailed feedback and allows long-term progress tracking," said Mark Horner, CEO Siyavula Education. "This way, learners who are struggling can be identified easily and assisted."

Examination Preparation

Siyavula provides invaluable practice material leading up to the examinations.

Assessment and Projects

In the case of most of the practical investigations, girls write practical reports based on the scientific method, that are assessed.

Short research assignments or translation tasks are also often assessed.

At least one standardised test is written every term. Two examinations, Chemistry and Physics, are written during each of the July and December examination sessions.

Career Paths and Opportunities

Although a pure B Sc degree with Physics and Chemistry can be studied (to be used for research etc), the true value of taking Physical Sciences at school is that it is needed for very many career-specific courses. It is compulsory for all engineering and for medicine. It is needed for technical and vocational training, like electricians etc.

General

Although Physical Sciences is an important subject, not only in the sense that many fields of tertiary study require it, but also in terms of the thinking skills that they will develop. Students need to be aware that an aptitude for the subject is not enough. They need to be aware that to develop whatever potential they have will require exceptionally hard work.

FURTHER STUDIES PHYSICS

The Further Studies Curriculum runs over a two-year period and cover the following topics: Analytical Skills, Thermal Physics, Modern Physics, Mechanics, Charged Particles in Fields and Oscillations.

To give students a little more time to finish the challenging curriculum we start with the lessons in Grade 10. Due to the packed programme, these classes are arranged for in the evenings.

2.19 Sepedi (Subject Head: Mrs Daisy Phahlane)

Mission Statement

With our ever-changing society, it is essential that we equip our young people in this country with the necessary skills to interact with as wide a population as possible. Since many learners who are native speakers of African languages attend English-medium education institutions, they lose their ability to converse and correspond in their home language. It is with this in mind that our mission statement is formulated. Sepedi enables the learners to communicate effectively, both in verbal and written disciplines, in their personal, social, educational, and occupational environments.

Course Outline

To broaden and deepen language competencies so that learners can listen, speak, read/view and write/present with confidence: this forms a basis for life-long learning.

- Use language appropriately in real-life contexts.
- Express and justify their own ideas, views, and emotions confidently to become independent and analytical thinkers.
- Use language and their imagination to represent and explore human experience.
- Use language to access and manage information for learning across the curriculum.
- Use language as a tool for critical and creative thinking.
- Express reasoned opinions on ethical issues and values.
- Interact critically with a wide range of texts.
- Recognize the unequal status of different languages and language varieties.

Assessment and Examinations

- There is continuous assessment of oral and written work in normal class situations.
- Writing is assessed continuously across a range of different tasks such as language and comprehension exercises as well as creative, transactional, and functional writing.
- Class tests and standardised tests are written regularly.
- Homework and assignments are given regularly.
- Projects are given termly.

- Examinations

Paper I	2½ hours	[100]
Paper II	2½ hours	[100]
Continuous assessment:	Portfolio	[100]
Oral		[100]

Skills Taught

- Basic language skills such as listening, speaking, reading and writing and research.
- Language is the best tool for instilling life skills such as critical thinking, analysing, problem-solving, initiative, etc.

Special Event

Annually we take part in a special Sepedi function where the culture and many of its practices are displayed, i.e., music, clothes, food and dances. This event is always blessed by good attendance by both the girls and their parents. Guests from outside are usually invited to come and share this event with us.

Career Paths and Opportunities

- Teaching presents a definite career path.
- Translating, interpreting, journalism and public relations present many career paths.
- Lexicographers and terminologists, as this aspect is mostly needed by the Department of Arts and Culture as well as PANSALB.
- The theatre, film, radio, and television world are self-evident career opportunities.
- Doctors working as interns all over the country, as well as nurses, would be well equipped with the knowledge of an African language as part of the package.

2.20 Visual Arts (Subject Head: Ms Belinda Donnelly)

Reasons for Taking Visual Arts As a Matric Subject

At the centre of all learning lies the learner's own experience. Arts education offers learners a unique way of exploring the world around them, expressing their own perceptions, and discovering their own creative imagination. In this sense, arts education lies at the heart of all learning!

Some of the outcomes for this subject are to:

- Encourage learners to think critically about the world of images around them. This skill benefits not only artists, but also designers, heritage workers, architects, photographers, teachers, town planners etc. We all rely on an ability to interpret images in a critical way. In a world where AI is generating so many new images daily, this has become an even greater skill to have.
- Emphasize the value of keeping artist's visual journals. These are a personal resource where ideas, sketches, images etc. can be stored for later use.

- Explore visual phenomena and technical possibilities through practical projects, research, interviewing and discussion.
- Synthesize findings in a personal and meaningful way, which not only benefits the individual but also the group.
- Humanize ourselves through the exhibition of own work, where issues of the art-making process and representation take place.

Course Outline

Grade 10:
Practical Component - The focus is on developing technical skills in a variety of media.
Theory - The beginning of Art until the start of Modernism.

Grade 11:
Practical Component – The focus is on producing a Drawing and Artwork portfolio around a given theme.
Theory- Modernism up until today (Contemporary art trends).

Grade 12:
Practical Component – Completing the IEB practical examination to create a visual diary, drawing and artwork relating to a given theme.
Theory - Contemporary art trends both locally (Resistance Art, and current SA artists) and internationally (Conceptual art produced in the past 30 years).

The weighting of marks:

50% Practical and 50% Theory

It must be noted that the time allocation for Art History is approximately 30 hours per year. The rest of the time is spent on practical processing.

Field Excursions, exhibitions, specialist workshops and visiting artists:

We regularly go on trips to visit galleries and studios to get inspiration. Specialist workshops are arranged for the learners to learn new skills under the guidance of specialists. Guest artists are invited to speak to the learners about their work.

Exhibitions are held in the school gallery and parents are invited to the openings.

Career Opportunities:

- Gaming design, App Design, and animation
- Advertising, Film, Videography, Directing and Editing
- Art direction on film sets or on design shoots
- AI imaging for future jobs
- Architecture and the Built Environment
- Arts Management and Marketing
- Web design and Media Platform Design

- Arts Journalism, blogging and publishing
- Public Art Curating and Conservation

Some things of interest:

- Gaming is one of the faster growing industries in the world and one which attracts creative people who want to be a part of a very new and rapidly evolving industry.
- In the future, many people will have 'portfolio careers.' This means that in the future, most people will have multiple careers concurrently.
- "I believe that creativity will be the currency of the 21st century."
  –Gerald Gordon, Ph.D., President/CEO, Fairfax County Economic Development Authority

Summary

There are countless varied and diverse fields/branches of Art, many of which cannot be measured, tested, or even touched upon at school level. Taking Art as a subject does not mean becoming an artist who works in a studio for a living - this may have been the case a few hundred years ago. Just as a student who takes Science is unlikely to become a scientist, so too, a student taking Art is unlikely to become an artist. Art teaches skills way beyond drawing – it inculcates life skills such as self-discipline, problem solving, visualisation, and processing concepts creatively, learning to be comfortable with ambiguity, lateral thinking etc.

Self-discipline, hard work and a love of the subject are key factors, which should motivate your choice. As is the case with all success, it requires the individual to move beyond the comfortable to be equipped for change and multi-disciplinary careers.

"GE hires a lot of engineers. We want young people who can do more than add up a string of numbers and write a coherent sentence. They must be able to solve problems, communicate ideas and be sensitive to the world around them. Participation in the arts is one of the best ways to develop these abilities."

– Clifford V. Smith, President of the General Electric Foundation