

# HIGH SCHOOL HOPEFIELD



## SUBJECT CHOICE BOOKLET GR 10

# National Senior Certificate (NSC)

The National Senior Certificate is a level 4 qualification on the National Qualification Framework (NQF). The certificate requires that learners should study seven subjects from Grade 10 – 12: four compulsory and three optional subjects.

The subjects are:

- Two official languages: one must be on the Home Language level, and the other must be on either Home or First Additional Language level. One of the two languages should be the language of learning and teaching.
- Mathematics or Mathematical Literacy
- Life Orientation
- Plus, three other subjects offered by the school.

Promotion requirements for NSC:

- One official language at home language level: minimum 40%
- Two other subjects: minimum 40%
- Three subjects: minimum 30%

You may fail one subject (less than 30%) if you have completed all the school-based assessments in this subject.

## Minimum requirements for admission to higher education institutions

Qualification	Minimum requirement for admission
Higher certificate	Pass the NSC with: One official language at home language level: 40% or more. Two other subjects: 40% or more. Three subjects: 30% or more.
Diploma	Pass NSC with: One official language at home language level with: 40% or more. Three other subjects: 40% or more (Life Orientation excluded) Two subjects: 30% or more
Bachelor's degree	Pass NSC with: One official language at home language level: 40% or more. Four subjects from the designated list: 50% or more. Two subjects: 30% or more

### **Designated subjects presented by High School Hopefield:**

Accounting, Business Studies, Consumer Studies, Engineering Graphics and Design, Geography, Languages, Life Science, Mathematics, Mathematical Literacy, Tourism Music, Physical Science, Visual Art.

# Subject changes

Learners are advised to make an informed decision in order to limit subject changes to a minimum. It requires a huge effort to start a new subject.

Please note that the feasibility of subject changes depends on class sizes, timetable variables and availability of teaching staff. It is not a given that the subject change will materialise. Final permission resides with the Western Cape Education Department.

The school may give temporary permission that a learner may change a subject, but the department has the final verdict, which may take up to two weeks before final permission is given. The learner and his parents are, therefore, at risk that their request cannot be granted and that the learner will have to return to his original subject.

**Mathematics is a requirement for Physical Sciences, Accounting. (If a learner decides to change from Mathematics to Mathematical Literacy he/she will therefore also need to change the mentioned subjects.**

**If a learner has extra subjects, you must take note that it might result in him writing two subjects on one day during the examinations.**

Grade 10:

A learner may change a maximum of two subjects in Grade 10. The closing date for these changes will be indicated to the learners at the beginning of term one next year, on the school's official communication platforms. All changes are subject to the approval of the rector and the WCED.

Grade 11:

A learner may change a maximum of two subjects in Grade 11, before the last day of term 1. The closing date for these changes will be indicated to the learners at the beginning of term one next year, on the school's official communication platforms. All changes are subject to the approval of the rector and the WCED.

Grade 12:

No subject changes are allowed in grade 12.



# Subject information

## Afrikaans Home Language

### **Beskrywing:**

Klem op Afrikaans Huistaal word daarop geplaas om die denke en kommunikasie van leerders te verbeter. Voorsiening word veral gemaak vir taalbedreweheid met klem op lees- en skryfvaardighede.

### **Onderwerpe/Inhoud:**

#### **Luister en praat**

Deur middel van effektiewe luister en praat, word inligting versamel en saamgevoeg en kennis gebou, probleme opgelos en meningsvorming aangemoedig.

#### **Lees en kyk**

Ontwikkeling van kritiese denke word daardeur bevorder met die doel om 'n bedrewe leser in die lees van literêre en nie-literêre asook visuele tekste te word.

#### **Skryf en aanbied**

Gereelde skryfoefeninge stel die leerder in staat om funksioneel en kreatief in Afrikaans te kommunikeer. Die leerder leer om idees en gedagtes duidelik te formuleer en oor te dra.

#### **Taalstrukture en -konvensies**

Stel die leerder in staat om met Afrikaanse taalgebruik te eksperimenteer op woord- en sinsvlak asook in volledige formele of informele tekste.

## Afrikaans First Additional Language

### **Description:**

Learners think mainly in their home language and then translate their thoughts and ideas.

The learning of a First Additional Language enhances bilingualism and intercultural communication.

### **Topic/ Index:**

The language skills, namely: Listening, Speaking, Reading and Writing will receive equal attention so that Additional Language learners can learn to think, debate and communicate in Afrikaans. The learning plan provides for learner interaction and self-discovery and learner involvement is encouraged in all class activities.

### **Difference between Home Language and First Additional Language:**

In Home Language (the language of learning and instruction), listening and language skills are further developed and refined and emphasis is placed on developing the learners reading and writing skills.

First Additional Language skills, such as Listening, Speaking, Reading and Writing all receive equal attention and focus. The work that is done in the Afrikaans First Additional Language class is practical and useful. It is utterly important that the Additional language learners have a good vocabulary so as to allow for good communication skills to be developed. In First Additional Language focus is placed on the expansion of the vocabulary of each learner.

# English Home Language or English First Additional Language

An excellent command of English has become imperative in our global society and at HSH it is our aim not only to teach the learners the English syllabus, but also to raise their knowledge and use of the language to extraordinary levels, thus giving them an advantage in almost everything that they do at school, as well as in their future lives and careers. Furthermore, with excellent English skills, learners may truly become 'global citizens' and compete with confidence for world-wide career opportunities.

Both **English Home Language** and **First Additional Language** are taught and assessed according to the following components:

- **Listening and Speaking:** learn to communicate effectively, logically, politely and with confidence.
- **Language Structures and Conventions:** learn to understand the structure and nuances of language in order to use this knowledge to improve writing, speaking and thinking skills.
- **Reading and Viewing:** learn to comprehend passages; enjoy reading; develop insight and self- discovery.
- **Writing and Presenting:** develop powers of observation; write imaginatively, accurately and coherently; write correctly according to context.

## IMPORTANT POINTS ABOUT HOME LANGUAGE AND FIRST ADDITIONAL LANGUAGE:

**Oral topics** and assessment for Home Language are aimed at higher-level thinking and use of advanced vocabulary and language structures; FAL candidates are offered opportunities to express their viewpoints about age-related topics and language usage is expected to be less complex.

**Language Study** in the Home Language classroom deals with the basics as well as more advanced nuances of language such as stylistic devices, whereas the focus in the First Additional classroom is on honing basic skills and equipping the learners with the correct idiomatic usage of English nature (the inclusion of one or more Shakespeare plays in Grades 10 to 12 is a given). Home Language learners are required to deal with these texts critically and analytically. The prescribed texts for First Additional Language may be equally challenging, but the learners are not required to acquire such a profound level of understanding.

**Writing assignments**, similar to oral topics, may be less challenging for First Additional Language learners than those for Home Language learners. Both groups, however, are taught to deal with a wide variety of essay types and transactional writing formats.

## CAREER MATTERS:

It is self-evident that communication is paramount in every sphere of life, but the following fields do require an above-average proficiency in English:

Journalism

Media

Marketing

Education

Social sciences

Entertainment

Management

## FAQs

### **How do I know if my child should carry on with Home Language in Grade 10?**

Learners who are not mother-tongue speakers and who would like to continue with English as Home Language in Grade 10, should be mindful that to do so and be able to cope comfortably, they should achieve a minimum of 65% in grade 9.

### **Why do the marks sometimes drop so significantly in Grade 10?**

This phenomenon causes a great deal of stress for learners and parents alike and the answer consists of two parts: firstly, the Grade 7-9 system (GET) uses a completely different weighting system in which the oral component is disproportionately important - e.g. it constitutes 48% of a learner's June mark whereas the literature component may count as little as 8%. In Grades 10-12, this is completely reversed, with the oral component reduced to a fraction of the final mark and the language/literature components making up the bulk of the final mark. Since most learners do well in oral assignments, they may appear stronger on their reports in the junior grades than what they really are. The second half of the answer is generic - learners face a sudden increase in academic work in Grade 10 and many of them are caught off guard.

**Will my child be disadvantaged if he does not carry on with Home Language?**

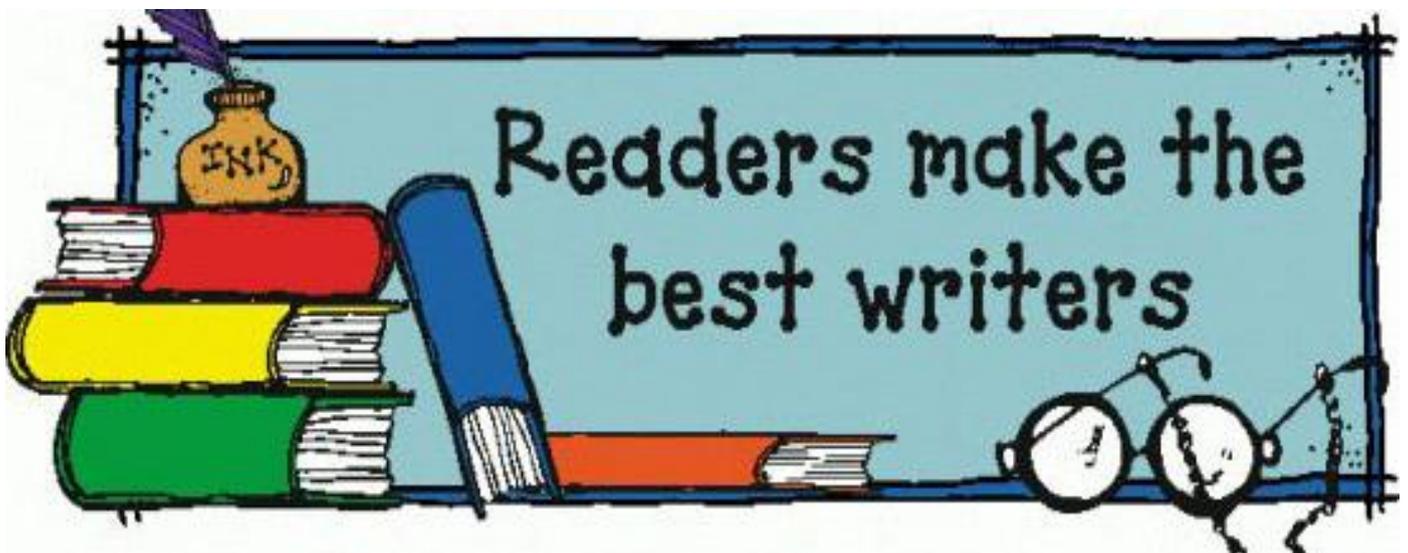
It is advisable that learners should familiarise themselves with the requirements for future tertiary courses as soon as possible, because there may be a requirement for a certain percentage in English Home Language specifically, but generally speaking, Home Language students are not advantaged over First Additional Language learners.

**Why does my child do worse in First Additional Language than in Home Language?**

The answer to this mystery is manifold - learners sometimes switch to First Additional Language after a too disappointing bout in the Home Language classroom, only to discover that they are doing worse in First Additional Language - this is often the case because learners assume that FAL is easier and involves less work. First Additional Language can be technically demanding and learners have to work diligently to master the many language rules.

**What can I do to help my child improve his English marks?**

This is the desperate question of both Home and First Additional parents and the answer is not contained in a magic word, rather in a change in approach: language proficiency is rooted in the old adage, input equals output. Reading (of novels, magazines, newspapers) is the obvious way to increase input, but other sources (albeit unconventional) may also be gaming, socialising and watching good television programmes/films.



# Mathematics and Mathematical Literacy:

## Description:

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 developmental processes that enhance logical and critical thinking, accuracy and problem solving that will contribute in 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.

## Topics/Content:

In the CAPS syllabus a grade 9 learner must choose between the subjects MATHEMATICS and MATHEMATICAL LITERACY.

Content wise, the difference between the two subjects are the following:

### Summary of the content of the curriculum for Mathematical Literacy:

Module 1: Number and operations in context:

- percentages e.g. percentage increase and decrease
  - using mathematical knowledge to manage personal finances and to set up a personal budget
  - adapt a budget to accommodate, for example, a change in the price of petrol or an increase or decrease in bond repayments
  - simple and compound interest
- Module 2: Functional relationships:
- variables and rate of change
  - direct and inverse proportion
  - drawing graphs of a number of situations in real life.
  - interpreting graphs and tables of data of situations in real life
- Module 3: Space, Shape and Measurement
- perimeter and volume
  - converting units of measurement within the metric system e.g. centimetres to metres, square centimetres to square metres
  - drawing and interpreting of scale drawings
- Module 4: Data handling (Statistics)

### Summary of the content of the curriculum for Mathematics:

#### Functions:

- graphs: straight line graphs, hyperbolas, parabolas, exponential graphs,
- trigonometric graphs (all graphs are also translated horizontally and vertically).

\*It is especially the graphs which are much more difficult than was expected in the old HG/SG curriculum

Number patterns:

#### Financial mathematics:

- compound and simple interest, inflation, hire purchase agreements
  - understanding the implications of fluctuating foreign exchange rates
- Algebra:
- manipulation of algebraic expressions
  - the solution of linear, quadratic, exponential and simultaneous equations
  - the use of mathematical models to solve real-life problems

#### Probability

- Euclidean geometry and measurement:
- triangles and quadrilaterals of the old HG/SG curriculum
- the understanding of the effect on area and volume if any dimension is multiplied by a constant factor.

Trigonometry Analytical geometry Statistics

Skills developed:

- To develop fluency in computation skills without relying on the usage of calculators.
- Mathematical modelling is an important focal point of the curriculum.
- To provide the opportunity to develop in learners the ability to be methodical, to generalize, make conjectures and try to justify or prove them.
- To be able to understand and work with number system.
- To show Mathematics as a human creation by including the history of Mathematics.
- To promote accessibility of Mathematical content to all learners.
- To develop problem-solving and cognitive skills.
- To prepare the learners for further education and training as well as the world of work.

**Qualities required and career possibilities:**

**How do you choose between Mathematics or Mathematical literacy?**

**Use the Gr 9 June Exam Mathematics marks as a guide:**

- **more than or equal to 60%, choose Mathematics**
- **between 50% and 60%, carefully consider whether your child really needs Mathematics for his future career.**
- **less than 50%, choose Mathematical Literacy.**

**Consider the career your child wishes to pursue:**

For a career, such as in pure Mathematics, Actuarial Sciences, Engineering, Science etcetera, it is obvious that he/she should choose Mathematics as a subject.

For any other course you should determine whether Mathematics as such is required for that specific course and then make the appropriate choice.

**Take your child's personality into account:**

In order to be successful in Mathematics a learner must:

- be able to concentrate in class
- have the self-discipline to work
- be willing-to, and have the time to do homework every day as well as over weekends
- be able to work independently
- have the discipline to summarise work
- be able to ask questions if he does not understand

**Final word:**

Maths is used as one of the subjects that determines admission to University because it determines whether a person can reason and make plans which can be set-out logically and executed. In other word it determines your problem-solving skills – a necessary skill on many levels.

Maths lessons in High School Hopefield are designed to stimulate learners to think for themselves. It encourages them to use the knowledge they have gained confidently in order to solve problems. One of the big drawbacks of our time is that learners want to know how to solve a problem without taking the time to battle with the problem themselves.

To truly master a subject like Maths entails more than a quick discussion about what can be done or an extra lesson to improve one's marks in the next test.

The day a learner has the determination and will to apply the basic knowledge, definitions and the orem's he has learnt to solve problems, he will truly be a master and will no longer be a slave that has to be coached along the way.

$$\int_{-\infty}^{\infty} e^{-x^2} dx = \sqrt{\pi}$$
$$f(x) = a_0 + \sum_{n=1}^{\infty} \left( a_n \cos \frac{n\pi x}{L} + b_n \sin \frac{n\pi x}{L} \right)$$
$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$



# Life Orientation

## Description:

Life Orientation serves as core subject to develop learners and provide them with orientation regarding the demands and realities of life. Twenty first century skills are developed and emphasised. Learners are therefore exposed to a variety of themes. According to the National Curriculum and Assessment Policy Statement (CAPS), Life Orientation is the study of self in relation to others and society. Skills, knowledge and values regarding self, the environment, responsible citizenship, a healthy and productive life, social involvement, recreation and physical activities, careers and career choices are discussed. Opportunities are included to get involved in the development and practice of a variety of life skills like problem solving, making informed choices and taking suitable actions to live significantly and successfully in fast-changing society. It does not only focus on knowledge but also emphasises the importance of the application of skills and values to real life situations, participation in physical activities and community initiatives.

## Topics/Content:

There are six main topics which are focused on:

1. Development of the self in society
2. Social and environmental responsibility
3. Democracy and human rights
4. Careers and career choices
5. Study skills
6. Physical Education

## Skills developed:

Life Orientation aims to:

- guide and prepare learners to respond appropriately to life's responsibilities and opportunities;
- equip learners to interact optimally on a personal, psychological, cognitive, motor, physical, moral, spiritual, cultural and socio-economic level;
- guide learners to make informed and responsible decisions about their own health and well-being and the health and well-being of others;
- expose learners to their constitutional rights and responsibilities, to the rights of others and to issues of diversity;
- equip learners with knowledge, skills and values to make informed decisions about subject choices, careers, additional and higher education opportunities and the world of work;
- expose learners to various study methods and skills pertaining to assessment processes and
- expose learners to an understanding of the value of regular participation in physical activity.

## Career possibilities:

Life Orientation provides a basic background to those who would like to further their studies in fields such as Law, Sports science, Psychology, Industrial psychology, Philosophy and Religious studies.



# Business Studies

## **Description:**

The subject Business Studies deals with the knowledge, skills, attitudes and values that are critical for informed, productive, ethical and responsible participation in the formal and informal economic sectors. The subject encompasses business principles, theory and practice that underpin the development of entrepreneurial initiatives, sustainable enterprises and economic growth.

## **Topics/Content:**

### **Business environment:**

- Micro, market and macro environments
- Business sectors
- Contemporary socio economic issues
- Business venture:
- Entrepreneurship
- Business opportunity and related factors
- Business Plan
- Management and leadership
- Forms of ownership
- Setting up a business
- Contracts
- Business location
- Investment securities and insurance
- Presentation of business information
- 3 Business role
- Creative thinking and problem-solving
- Self-management, professionalism and ethics
- Human rights, inclusivity and environmental issues.
- Social responsibility
- Stress, crisis, change and conflict management
- Relationship and team performance
- Business operation:
- Business functions
- Quality of performance
- Skills required
- Passion for business
- Language skills
- Organisational skills
- Analytical skills

### **Skills developed:**

Business Studies will ensure that learners:

- acquire and apply essential business knowledge, skills and principles to productively and profitably conduct business in changing business environments;
- create business opportunities, creatively solve problems and take risks, respecting the rights of others and environmental sustainability;
- apply basic leadership and management skills and principles while working with others to accomplish business goals; are motivated, self-directed, reflective lifelong learners who responsibly manage themselves and their activities while working towards business goals;
- are committed to developing themselves and others through business opportunities and ventures;
- are able to secure formal employment, and are in a position to pursue sustainable entrepreneurial and self-employment career pathways

### **Career possibilities**

Business studies is useful for those thinking about a career in chartered accounting, consultancy, investment banking, retail buying, teaching or starting your own SMME

# Engineering Graphics and Design (EGD)

## Description:

Engineering Graphics and Design (EGD) teaches internationally acknowledged principles that have both academic and technical applications. The emphasis in EGD is on teaching specific basic knowledge and various drawing techniques and skills so that the EGD learners will be able to interpret and produce drawings within the contexts of Mechanical Technology, Civil Technology and Electrical Technology.

## Topics/Content:

### Mechanical Drawings:

- Most of the drawings will be of machine parts, sectional views, Cams and Loci.

### Civil Drawings:

- The pupil will learn how to draw perspective drawings, isometric views as well as understanding and drawing house plans.

### Electrical Technology:

- This forms part of Civil, which demands a knowledge of and understanding of circuit diagrams and electrical wiring of a house.
- In all 4 outcomes the design process plays a big role.

### Computer Technology

## Skills developed:

- Graphical drawings as the primary means of communication in the technological world
- Specific basic content and concepts within the contexts of Mechanical Technology, Civil Technology and Electrical Technology
- Various instrument and freehand drawing techniques and skills
- Solving technological problems through graphical drawings

## Qualities required:

- The pupil that will make a success of EGD must be enthusiastic, have an aptitude and insight, and who is prepared to work hard. Mathematics (not literacy) is recommended.

## Career possibilities:

- Draughting
- Architecture
- Town planning
- Engineers

Final word:

**EGD is not needed to study Architecture (Architectures required subjects are Mathematics and Physical Science)**

**EGD has additional cost (R1500) (Board etc) for parents own account.**



# Physical Science

## **Description:**

Physical Sciences investigate physical and chemical phenomena. This is done through scientific inquiry, application of scientific models, theories and laws in order to explain and predict events in the physical environment. This subject also deals with society's need to understand how the physical environment works in order to benefit from it and responsibly care for it. All scientific and technological knowledge, including Indigenous Knowledge Systems (IKS), is used to address challenges facing society.

## **Topics/Content:**

Physical Sciences is a combination of Physics and Chemistry. At the end of matric, learners write separate Physics (Paper 1) and Chemistry (Paper 2) papers that count equally for a final mark.

Six main knowledge areas inform the subject Physical Sciences.

These are:

1. Matter and Materials
2. Chemical Systems
3. Chemical Change
4. Mechanics
5. Waves, Sound and Light
6. Electricity and Magnetism

## **Skills developed:**

Skills that are nurtured include: classifying, communicating, measuring, designing an investigation, drawing and evaluating conclusions, formulating models, hypothesising, identifying and controlling variables, and inferring, observing and comparing, interpreting, predicting, problem-solving and reflective skills.

Physical Sciences promotes knowledge and skills in scientific inquiry and problem solving; the construction and application of scientific and technological knowledge; an understanding of the nature of science and its relationships to technology, society and the environment.

## **Qualities required:**

- A genuine interest in the Sciences
- Curiosity about how things work
- Sound mathematical ability (above 60% in Grade 9)
- Mathematics as a subject from Gr10 – 12
- A strong work ethic
- Ability to absorb a large volume of information in a short time
- Good language, comprehension and interpretation skills
- Ability to memorise large amounts of information
- Insight

**Please note that Natural Science (Gr 8 and 9) bears little to no resemblance to Physical Sciences with regards to volume and difficulty. Good marks for Natural Science are not an indicator for success in Physical Sciences.**

## **Career possibilities:**

- Pharmacology
- Medicine and dentistry
- Engineering
- Physiotherapy
- Radiography
- Agriculture
- Biochemistry, Genetics, Geology, Physiology
- Certain Aviation courses
- Certain Architectural courses

**Please note: Admission to most of the above courses requires a minimum of 65% for Physical Sciences.**

## **Final word:**

**Physical Sciences is a demanding and challenging subject that requires learners to study independently. Learners must be ready to work continuously from day one as the content in Grade 10 forms the foundation for the subject in Gr 11 and Gr 12.**

# Geography

## Description:

Geography is a multi-disciplinary subject that provides a link between the natural sciences and humanities. It focusses on the study of human and physical environments and the interaction/relationship between people and the environment. The concept that unifies Geography is space, meaning all geographical phenomena have a spatial dimension and operate in a continuously changing environment.

## Topics/Content:

- Topics in Geography are explored by embracing the following knowledge framework namely:
- Place
- Spatial processes
- Spatial distribution patterns
- Human and environment interactions

GRADE 10	GRADE 11	GRADE 12
Climatology Geomorphology People and Places (Population) Water resources Geographical skills and techniques (Map work and GIS)	Geographical skills and techniques (Map work and GIS) Climate and weather Geomorphology Development Geography Resources and sustainability	Geographical skills and techniques (Map work and GIS) Climate and weather Fluvial Processes and landforms Settlement Geography Economic Geography of SA

## Skills developed:

- A Geography enquiry method is applied during study to develop the following skills:
- Observation – What is it and What does it look like?
- Description – Where does it occur and Why?
- Analysis and explanation – What happened/is happening and Why?
- Evaluation and prediction – What are the effects?
- Decision making – How should it managed?
- Evaluation and Judgement – What actions can be taken?

Pupils will acquire knowledge, understanding and attitudes that can be applied in a variety of contexts and situations. There has never been a more relevant time to study Geography, given a growing increase in issues such as climate change, migration, environmental degradation, disease, water shortages and resource depletion. These issues require a global community with the ability to apply critical geographical thinking.

## Career possibilities:

Careers with a strong geographical link include: aviation, cartography, earth sciences, eco-tourism, geographical information systems (GIS), geology, land surveying, meteorology, environmental-related careers (law, management), regional and urban planning, hydrology and oceanography.

## Final word:

Geography in the FET phase is the only discipline that teaches map skills and basic GIS (a computer database and programme that allows you to study certain phenomena in order to make informed judgements and solve issues using computer technology).

# Visual Arts (LentjeBok)

## Description:

In Visual Arts, basic art techniques are taught and applied by creating artworks in which the learner depicts his / her feelings and opinions on a wide range of issues visually.

Visual Arts covers a broad field of creative practice that involves the hand, the eye, the intellect and the imagination in conceptualising and creating two-dimensional and three-dimensional artworks, objects and environments which reflect the aesthetic, conceptual and expressive concerns of individuals or groups.

Learners acquire the capacity to make practical and aesthetic decisions in the development of a coherent body of work. The subject Visual Arts is about self-expression and offers learners a way to engage meaningfully with, and respond to, their world. It provides opportunities to stimulate and develop learners' intellect, engaging their creative imagination through visual and tactile experiences and the innovative use of materials and technology in realising their ideas. It also encourages learners to develop an individual visual language and literacy, which is informed and shaped by the study of visual culture, past and present.

## Topics/Content:

- Learners must choose ONE of the following Visual Arts disciplines: Drawing, Painting, Photography, Printing, Sculpture or Ceramics.
- Conceptualising through the development and realisation of creative ideas
- Making of creative artworks, management of process and presentation, following safe practice
- Visual culture studies: emphasis on visual literacy

## Skills developed:

- Explore, develop and realise creative ideas in response to both externally set and self-generated projects, drawing on own experience and own knowledge of visual culture in the past and present;
- Explore and manipulate materials, techniques, processes and technology in the making of imaginative and innovative artworks of personal expression
- Explore materials, processes and techniques in an efficient, economical, safe and responsible way;
- Manage own working process
- Observe, assess and analyse art forms, processes and products
- Communicate effectively using visual, oral and written language skills
- Critically appraise own work and that of others
- Develop entrepreneurial skills and professional practice within art to explore a variety of career options
- Be exposed to the diversity of visual arts traditions in international and Southern African contexts and use it as a resource
- Appreciate the critical role visual arts plays in the enrichment of the visual environment of the school and community
- Understand the links between visual arts and the creative industries, such as design and advertising
- Understand the social and historical role of visual arts in transforming societies

## Qualities required:

Learners should be able to work in a disciplined way on practical projects that sometimes require independent decision making in order to solve 'problems' within the creative process. Time planning and perseverance are very important qualities for the successful completion of a practical project. Learners should also be open to constructive criticism as part of the learning and creation process.

## Career possibilities:

In Visual Arts, learners are prepared to solve problems and think critically and it is therefore preparation for 21st century professions. The following professions are a selection that are directly related to the field of study: Professional artist, gallery owner, art dealer, curator, art historian, art critic, architect, art teacher, art therapist, illustrator, photographer, set designer.

## Final word:

**Learners may choose only 1 of the 2 subjects - Visual Art OR Design**

Learners interested in this subject should make a choice regarding the subject discipline they want to follow and therefore a selection test is taken to determine which direction is appropriate.

# Design (LentjeBlk)

## Description:

In Design as a subject you will learn to create an aesthetic functional product that can be marketed in the consumer world. Items include jewellery, advertisements, book illustrations, textile designs on materials/ wallpaper, pots, bowls, plates and cups. Design is a creative problem-solving process and includes the study of both design practice and design theory. The design process involves problem identification, planning, research, innovation, conceptualisation, experimentation and critical reflection. This process typically results in new environments, systems, services and products, which may be unique or intended for mass production, or which may be constructed by hand or produced by mechanical and/or electronic means. Design adds value to life by creating products that have a purpose, that are functional and that have aesthetic value. Design products can shape the social, cultural and physical environment to the benefit of the nation. Most importantly, Design equips learners with crucial life skills such as visual literacy, critical and creative thinking, self-discipline, and leadership. It also encourages learners to be resourceful and entrepreneurial, to strategise and to be team players.

## Topics/Content:

Learners can choose ONE of the following Design Disciplines to specialize in Grade 10-12: Ceramic Design, Illustration, Textile Design or Jewellery Design.

Learners are introduced to the following aspects within the various disciplines:

- Design process and factors influencing the process Design in a business context
- Design production, time management and safe practice
- Design theory:
- History of design
- Design literacy
- Design in a socio-cultural/ environmental and sustainable context

## Skills developed:

In Grades 10 to 12, Design learners will

- develop their ability to analyse, invent, innovate and construct visual language
- develop knowledge, technical abilities and skills in the conceptualisation, production and context of design
- explore and manipulate materials, processes and techniques efficiently, economically, safely and responsibly
- appraise their own work and that of others critically
- understand that design may be a tool for social change by improving the quality of life and providing solutions in response to individual and community needs
- understand the social and historical contribution of design with regard to economic growth, entrepreneurship and sustainability
- develop an awareness of career opportunities in the design industry
- manage their own working process and time effectively
- develop presentation and communication skills in order to convey design concepts accurately
- acknowledge and reflect on the design, art and craft of local and international and past and present cultures

## Qualities required:

Learners should be able to work in a disciplined way on practical projects that sometimes require independent decision making in order to solve 'problems' within the creative process. Time planning and perseverance are very important qualities for the successful completion of a practical project. Learners should also be open to constructive criticism as part of the learning and creation process.

## Career possibilities:

Advertising Designer, Logo/Brand Developer, Magazine/Website Page Designer, Textile Designer, Jewellery Designer, Architect, Interior Designer, Town Planner, Fashion Designer, Animation Artist, Digital Illustrator, Advertising / Fashion Photographer, Potter, etc.

# Life Sciences

## Description:

“Life Science is all about the principles of life and maintaining a balance. It is a study of the link between other fields such as physiology, agriculture, earth science, physical science, mathematics, technology, community health, medicine, populations and environmental studies, archaeology, anthropology and palaeontology.” (Bowie et. al 2008)

Life Sciences is the in-depth look at the biological world (natural living world of plants, animals, and microbes.), the environments in which they live and impact on. It focuses in more detail on the processes of life and interrelationships of their surrounding environments. It differs from Natural Sciences in the way that no Physical Sciences such as inorganic chemistry and physics (e.g. electricity/forces) are discussed or included in the curriculum.

## Topics/Content:

### Grade 10

- Chemistry of life - Inorganic compounds - Organic compounds
- Cell - unit of life • Cell division (mitosis)
- Plant and animal tissue
- Support and transport systems in plants
- Support systems in animals
- Transport system in mammals
- Biodiversity and classification
- History of life on Earth
- Biosphere to ecosystems

### Grade 11

- Energy transformations to support life: photosynthesis
- Animal nutrition
- Energy transformations: respiration
- Gas exchange
- Excretion
- Biodiversity - classification of microorganisms
- Biodiversity - plants • Reproduction - plants
- Biodiversity - animals • Population ecology
- Human impact on environment: current crises

### Grade 12

- DNA code of Life
- RNA and protein synthesis
- Meiosis
- Reproduction in vertebrates
- Human reproduction
- Nervous system
- Senses
- Endocrine system
- Homeostasis Darwinism and Natural Selection
- Human evolution Human impact on environment: current crises Grade 11

## Skills developed:

- identifying a problem;
- hypothesising;
- selecting apparatus or equipment and/or materials;
- identifying variables;
- suggesting ways of controlling variables;
- planning an experiment;
- suggesting ways of recording results; and
- understanding the need for replication or verification

**Qualities required:**

**A learner who has achieved above 50 % for Natural Sciences should be able to cope successfully in the grade 10 year provided that the learner shows the following characteristics:**

- An interest in how our natural biological world works.
- The ability to have insight into certain complex biological processes and the interrelationships between them.
- The ability to read and understand new biological concepts and then translate these concepts into their own written word.
- The willingness to learn and study.
- Learners who have no interest in the inner workings of biological life will not enjoy this subject.

**Career possibilities:**

Life Science is compulsory for the Medical Sciences and strongly recommended for studies in the Agri Sciences, Sport Science and all Biological Sciences.



# Music

## **Description:**

Music is the art of organising sounds and silence, expressing intellectual, emotional and spiritual aspects of human experience. Music is an art form that can be combined with other forms, and is often enhanced by technology. It can communicate a broad range of historical, cultural and socioeconomic ideas and issues. Music has the power to unite groups and to mobilise community involvement for the improvement of quality of life, social healing, and affirmation of human dignity.

## **Topics/Content:**

The subject curriculum involves the study of:

1. A musical instrument
2. Improvisation, Composition and Arrangement
3. Theory of Music
4. Music History
5. Aural development
6. Music technology
7. Active participation in the department's ensemble program, e. g. Jazz Band, Musica Perpetua, Choir, Stringendo, Singing group and the Young maestro project

## **Skills developed:**

1. Self-motivation: Music students of necessity become self-motivated, as daily work on their instrument after school hours is essential.
2. Time management: these are developed as the student's instrumental work increases in complexity and scale; students learn to utilise the limited time available with maximum efficiency in order to achieve the best possible result.
3. The ability to work alone and in a team.
4. The development of creative thinking.
5. Academic studies have demonstrated the benefits flowing from the study of music increased concentration, improved maths and science as well as language ability.

## **Qualities required:**

1. Learners enrolling for subject music should preferably have reached at least a
2. Grade 3 level in the theory and practice of music. This is the level of Creative Arts: Music and Drama or Music as a subject at High School Hopefield.
3. Students must be self-motivated, able to work individually as well as in a team.

## **Career possibilities:**

The music industry is a vast, global multibillion-dollar enterprise and offers an enormous number of career opportunities in the fields of Classical, jazz and popular music: composer, arranger, performer, conductor, recording engineer, producer, video producer, DJ, and event organizer.

Related fields: music retail, musical theatre, education, music journalism, advertising, film music, radio and television, music software development and production.

## **Keep in mind:**

Music-as-subject not only promotes the learner's cognitive and emotional development, but also offers a permanent practical skill that will help them for the rest of their future.

# Computer Application Technology

## Description:

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.

## Topics/Content:

### Theory

- computer hardware and software;
- networked environments;
- information and communication technologies in different environments;
- computer ethics, security and viruses;
- ergonomics, health and safety issues; social and environmental issues;
- using an operating system including file management; and general trouble shooting.

### Applications (Word, Excel, PowerPoint, Access and Web Design)

- competence in input and manipulation of data;
- effective use of various end-user computer application programmes;
- integration of application programmes in a variety of contexts;
- effective communication.

### Information Management

- find, collect, analyse and critically evaluate data;
- organise and process information in various formats; and
- present and communicate information.

### Skills developed:

#### In Computer Applications Technology a learner will:

- use end-user software applications proficiently to produce solutions to problems within a defined scenario;
- understand the concepts of ICTs with regard to the technologies that make up a computing system;
- understand the various technologies, standards and protocols involved in the electronic transmission of data via a computer-based network;
- use the Internet and the WWW and understand the role that the Internet plays as part of the global information superhighway;
- find authentic and relevant information, process the information to draw conclusions, make decisions and communicate the findings in appropriate presentation media; and
- recognise the legal, ethical, environmental, social, security and health issues related to the use of ICTs and learn how to use ICTs responsibly.

### Qualities required:

Learners must develop the skill of understanding a concept and then apply the principle. Very good reading and comprehension skills are therefore needed. The amount of content covered by the subject makes a very good study method a necessity. Many practical tasks are done during the year. Theory is usually a problem when they have to apply knowledge in a particular scenario. Basic numeric proficiency is an important requirement, especially when working with Excel.

### Career possibilities:

The subject allows learners to develop basic to advanced end-user computer skills (Word, Excel, Access, PowerPoint). This ensures that learners can enter different career pathways in a number of fields, or apply these, and related skills, to create employment for themselves and for others.

**Computer Applications Technology at school level is not a requirement for any tertiary studies, but computer literacy is a requirement for any tertiary studies.**

- Office Administration
- Entrepreneurship
- Secretarial Degree (Major in Computers and Business Management)
- Public Relations
- Teacher/Educator
- Business Studies/
- Management Accountant



# Accounting

## Description:

Accounting focuses on measuring performance and processing and communicating financial information about economic sectors. This discipline ensures that principles such as ethical behaviour, transparency and accountability are adhered to. It deals with the logical, systematic and accurate selection and recording of financial information and transactions, as well as the compilation, analysis, interpretation and communication of financial statements and managerial reports for use by interested parties. The subject encompasses accounting knowledge, skills and values that focus on the financial accounting, managerial accounting and auditing fields. These fields cover a broad spectrum of accounting concepts and skills to prepare learners for a variety of career opportunities. The table below indicates the main topics in the Accounting curriculum.

## Topics/Content:

- Indigenous bookkeeping
- Ethics
- GAAP principles
- Internal control
- Bookkeeping of sole trader – recording credit and cash transactions; General Ledger; Trial Balance;

## Accounting equation

- Financial statements – adjustments, closing transfers, Income Statements, Balance Sheet, Notes to financial statements, Analysis of financial statements.
- Cost accounting
- VAT
- Salaries and wages
- Budgeting

## Skills developed:

- Being organised
- Thoroughness
- Accuracy
- Meticulousness
- Financial literacy
- Ethical behaviour
- Good judgment
- Critical, logical and analytical capabilities
- Neatness

## Qualities required:

Accounting is a demanding and challenging subject that requires learners to study independently. Learners must be ready to work continuously from day one as the content in Grade 10 forms the foundation for the subject in Gr 11 and Gr 12.

## Career possibilities:

**Accounting is recommended for any course in the fields of economic and management sciences.**

- Accounting
- Economy
- Import/export
- Compliance officer
- Banking
- Management analyst
- Investment management

## Final word:

**Please note that EMS (Gr 8 and 9) bears little resemblance to Accounting with regards to volume and difficulty. Good marks for EMS are NOT an indicator for success in Accounting.**

# Consumer Studies

## Description

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.

## Syllabus

The topics that are covered are:

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

## The Consumer

- Investigate channels for consumer complaints.
- Analyse the implication of taxes, interest rates and inflation on 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 – Theory

- 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, complete a financial feasibility study, determine production costs, selling price, profit and start-up needs, create a cash-flow projection.
- Entrepreneurship and Production – Practical Assessment Task

**FOOD PRODUCTION** – the learner will formulate a plan for the production of a product, as well as apply theory and demonstrate practical skills to produce quality, marketable products while working individually.

## Should you choose Consumer Studies as an option?

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 pupils 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 don't 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!

## What Qualities do I need?

Even though Consumer Studies is fun – remember it is also hard work!

Consumer Studies students are those people who have a passion for food, clothing, housing, soft furnishings and interiors and have high standards, values and goals in life.

## Job Opportunities

- Consumer Services and event management
- Co-ordinate events within the fields of food or design.
- Marketing and Management
- 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, 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.
- Field of Clothing  
Clothing designer, dressmaker, merchandiser, fashion buyer.
- Field of Housing  
Interior designer, housing consultant.
- Hotel / Restaurant / Catering  
Hospitality industry: manage game lodges, offer private catering  
Food Services Management
- Entrepreneur  
Opportunities in the food, clothing, housing fields; this is especially relevant to a working-from-home situation
- Formal education  
Teach/lecture at university, technical university, technical college or high school.  
Adult education  
Develop programmes, do extension work in government services or NGO's in community development.

**There are additional costs to the subject.**



# Tourism

## Description

As people's leisure opportunities have increased and their demands have become increasingly sophisticated, tourism has developed into one of the world's most expansive industries, employing increasing numbers of people in related businesses.

Tourism is the study of the expectations and behaviour of tourists, and the economic, social and environmental impact of tourism on South Africa.

## Purpose

Tourism orientates and prepares young people for a career in the tourism industry..

## Curriculum

This programme integrates academic knowledge and theory with practical skills and values, and covers:

- Tourism sectors
- Map work and tour planning
- Tourist attractions
- Sustainable and responsible tourism
- Domestic, regional and international tourism
- Culture and heritage tourism
- Foreign Exchange
- Communication and customer care
- Marketing

## Should I take this subject?

If you are interested in tourism, you will enjoy this subject. Work-orientated academic knowledge has become more and more in demand in the labour market – both for new employees and those already in work.

## Careers

There are a variety of careers related to this subject including,

- Concierge Desk
- Conference and Events Planning
- Reservations at Accommodation Establishments
- Information Centre
- Tour Operator
- Tourism Development
- Tour Guide



