

PARKTOWN BOYS' HIGH SCHOOL



FET SUBJECT CHOICES

Subjects offered at Parktown in the FET phase:

1. English Home Language
2. Afrikaans First Additional Language
3. IsiZulu First Additional Language
4. Mathematics
5. Mathematical Literacy
6. Advanced Programme Mathematics
7. Life Orientation
8. Information Technology (IT)
9. Computer Application Technology (CAT)
10. Physical Sciences
11. Life Sciences
12. Accounting
13. Business Studies
14. Geography
15. History
16. Visual Arts (Painting and Design)

These subjects are offered at Parktown. A minimum of 7 subjects must be chosen. The following subjects are compulsory:

1. English Home Language
2. Afrikaans **or** IsiZulu First Additional Language
3. Life Orientation
4. Mathematics **or** Mathematical Literacy

Following these 4, the 5th subject must be one of the following:

Physical Sciences, Life Sciences or Geography

Once one of the subjects above has been chosen, the remaining 2 subjects can be selected. Please note that by choosing Physical Sciences for example as the 5th subject, it does not restrict Life Sciences or Geography from being selected as the 6th and 7th subjects.

There are 2 subject combination restrictions to be aware of. These are:

- Visual Arts (Painting) and Visual Arts (Design)
- Information Technology and Computer Applications Technology

Please note that Advanced Programme Mathematics is an additional subject. This is done on a selected day, after school.

FET PROMOTION REQUIREMENTS (Grades 10 – 12)

1. Minimum requirements

Learners must meet all of the following:

1. 40% in THREE subjects (one of which being ENGLISH) +
2. 30% in THREE subjects +
3. 20% in the remaining subject (must have completed all portfolio components)

2. Minimum requirements for admission to higher certificates, diplomas and bachelors degrees

Higher Certificate: Learners must have a National Senior Certificate (NSC)

Diploma: Learners must have a NSC with a rating of between 40% and 49% (i.e. a current E symbol) in FOUR recognised subjects.

Bachelor's Degree: Learners must have a NSC with a rating of between 50% and 59% (i.e. a current D symbol) or better in four of the following subjects

Accounting, Business Studies, Geography, History, Information Technology, Languages, Life Sciences (Biology), Mathematics, Mathematical Literacy, Physical Sciences and Visual Arts (Painting and Design)

UNIVERSITY OF THE WITWATERSRAND ADMISSION POINTS SCORE (APS)

Please remember that the Minimum Admission Requirements (MARs) are merely a guideline.

Final selection to a particular faculty is always subject to availability of places, academic results and other entry requirements where applicable.

NSC PERCENTAGE	NSC SCALE	WITS APS	WITS APS %	WITS APS FOR MATHS & ENGLISH	WITS APS FOR L O	WITS APS OTHER SUBJECTS
		8	90 – 100	8 + 2 = 10	4	8
80 – 100	7	7	80 – 89	7 + 2 = 9	3	7
70 – 79	6	6	70 – 79	6 + 2 = 8	2	6
60 – 69	5	5	60 – 69	5 + 2 = 7	1	5
50 – 59	4	4	50 – 59	4	0	4
40 – 49	3	3	40 – 49	3	0	3
30 – 39	2	0	30 – 39	0	0	0
0 – 29	1	0	0 – 29	0	0	0

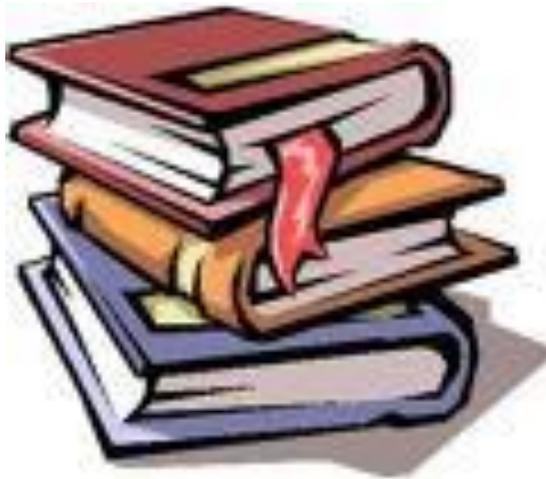
- Maths is compulsory for all numerate programmes in Health Sciences, Engineering and Built Environment, Commerce, Law and Management and Science.
- Maths Literacy is accepted in Law, Education and Humanities

Minimum APS requirements (Accumulated Point Score)

Medicine, Pharmacy, Physiotherapy:	English 5 + Maths 5 + P / L Sc	5 APS = unspecified
Engineering:	English 5 + Maths 6 + Phys Sc	7 APS = 43 + points
B. Com:	English 5 + Maths 5	APS = 37 points
B. Accounting	English 5 + Maths 5	APS = 42 points
LLB	English 5 + Maths 3 / MLIT 4	APS = 43 points
BSC	English 4 + Maths 6 + Phys Sc 7	APS = 43 points
B.A.	English 5 + departmental requirement	APS = 34 points
B ED	English 5 + departmental requirements	APS = 34 points

English

At Parktown Boys' High, English is offered at a Home Language level only. Boys are expected to maintain an average of at least 50% for this subject as comprehension in this subject affects their performance in all others. As such, boys are expected to continue with their reading regime – ensuring that they read a 150 page book every month. Extra lessons in this subject are available, but boys need to make the effort on their own to increase their vocabulary and comprehension skills.



Afrikaans

Afrikaans is **one** of the languages that is a tool for thought and communication. It is through language that cultural diversity and social relations are expressed and constructed. **Learning to use the language effectively enables learners to think, acquire knowledge, to express their identity, feelings and ideas, to interact with others and to manage their world.**

In view of the linguistic and cultural diversity of South Africa and at Parktown Boys' High School, we as **Afrikaans** educators, **encourage learners to communicate across language barriers and foster cultural and linguistic respect and understanding.** Now, more than ever, learners will have to work at becoming **FULLY BILINGUAL** – so great are the demands on those who study **Afrikaans as a First Additional Language.** As learners move through the grades, they are required to use Afrikaans with increasingly fluency, proficiency and accuracy in a broadening range of situations. They take greater responsibility for their own learning and apply their learning skills in more challenging and complex ways.

isiZulu

IsiZulu is a widely spoken home language in South Africa as well as being understood by the majority of the population. It became one of the eleven official languages in 1994. Studying Zulu at Parktown Boy's High School gives learners an opportunity to expand their knowledge of using the language effectively in different situations. As we prepare learners to be our future leaders, it is crucial for them to understand one of the most widely spoken languages in South Africa. It is also recommended for business purposes as people use the language to communicate with their clients. At Parktown Boys' High School, we offer IsiZulu at First Additional Language level, providing skills that will equip learners to engage in various activities as well.

Methods and skills used to promote African language in our school include:

Inkulumo Emphakathini (IsiZulu Public Speaking) Inkulumo-mpikiswano (IsiZulu Debating)

There is also an **IsiZulu Traditional Dancers Group where we sing, dance and grasp the vocabulary at the same time.** All the students who are participating in **IsiZulu Debating and Public Speaking are good essay writers, good readers, excellent presenters** and so on.

Promoting IsiZulu is essential because of the challenges facing our youth. The youth is no longer prepared to learn an African Language as they think they are going to be laughed at or undermined as students who have no focus in life.

We have proposed the reading of IsiZulu newspapers like Isolezwe, Ilanga, IsiZulu Bona, and uMdlalo IsiZulu Drum Magazine. Learners are tasked to write **short articles in IsiZulu to improve their writing skills. We should not forget the listening skills in our students i.e. listening to the SABC I news as well as UKHOZI FM.**

We are very grateful to the surrounding schools that are working with us in the creation of **SIYATHUTHUKA NGEZILIMI ZABOMDABU EZIKOLENI COMPETITIONS.**

These competitions take place annually. The purpose of these competitions is to promote African languages especially in schools where African language is overlooked.

Mathematics

Mathematics is both a science and an art. Mathematics is studied partly because of its usefulness in the fields of science, engineering and the financial world, but also purely for its beauty. When doing mathematics, the brain is trained and its capacity for reasoning and problem-solving is enhanced.

If your child chooses Mathematics, he will get the opportunity to explore a wonderful and exciting world of reasoning. He will learn nothing short of a powerful language of intellectual expression. However, he will have to work hard and be disciplined to master this language. With the right amount of effort, he will find this subject a solid foundation on which a lot of his future learning, problem solving and communication can be built.

Learners will study the following ten topics, in progressive detail, from Grade 10 to Grade 12:

- Algebra
- Number Patterns, Sequences and Series
- Functions and Graphs
- Financial Mathematics
- Calculus (Grade 12 Only)
- Probability Theory
- Data Handling and Statistics
- Trigonometry
- Analytical Geometry
- Euclidean Geometry

With the introduction of the Curriculum and Assessment Policy Statement (CAPS), there is a renewed shift in South African school Mathematics, back to the old school approach to the subject. This new syllabus, which your child will study, should he choose Mathematics, compares well with what was previously known as Higher Grade Mathematics. As such, it is quite a challenging syllabus, which demands much of the average learner. It is our policy at Parktown Boys' High School to encourage as many learners as possible to choose Mathematics, but the reality is that not all learners can cope with the demands of the subject. It is very unlikely that a learner who cannot manage to pass Grade 9 Mathematics will be able to cope with Mathematics in the FET phase.

We advise parents and learners to think carefully before deciding to opt for or against Mathematics. There are implications both ways. While choosing Maths will open many doors if the learner is successful in the subject, there is another side to consider. A learner who is not mathematically inclined, but forced to choose the subject despite his lack of interest and/or aptitude in the subject, may face serious frustration and even negative psychological and self-esteem issues. Apart from this, he may put himself in danger of failing a year - possibly even his matric year. There are fields that can be studied without Mathematics, although far less than with Mathematics.

Mathematical Literacy

When the new FET curriculum was introduced in Grade 10 in 2006, it became compulsory for learners to do some form of Mathematics as one of their matriculation subjects. As an alternative for those who struggle with Mathematics, the option was given to choose Mathematical Literacy instead. This subject is designed for those learners that find Mathematics seriously challenging and would be in danger of failing at the end of Grade 12 if they continued with Mathematics.

Mathematical Literacy is ideal for those learners planning to do a trade or going into the work place after matriculating. Mathematical Literacy teaches the boys mathematical concepts that can be applied in real life situations. There are certain degrees that do not require Mathematics.

DIFFERENCE BETWEEN MATHEMATICS & MATHEMATICAL LITERACY

MATHEMATICS	MATHEMATICAL LITERACY
Focuses on the <i>abstract</i> discipline of mathematics.	Focuses on the role of mathematics <i>in the real world</i> .
Emphasis is <i>purely academic</i> , but reasoning skills are occasionally applied to real life contexts.	Relevant, current contexts are used.
<i>Mathematical Content is expanded</i> as the learner progresses from one year to the next.	<i>Only basic mathematics</i> is needed. Only a few new concepts are introduced in Grades 10 and 11.
<i>Both content and contexts</i> become more complex / advanced.	<i>Only contexts</i> become more complex. Content remains basic.

WHAT WILL MATHEMATICAL LITERACY LEARNERS LEARN?

Learners of Mathematical Literacy will learn how to:

- Use a basic calculator.
- Perform basic arithmetical operations.
- Work with relationships between arithmetical operations.
- Work with simple formulae, including formulae for:
 - perimeter; area and volume; and
 - speed; and time.
- Estimate and check estimates against the situation.
- Work with and apply the concepts:
 - ratio/proportion and percentage and
 - rate.

- Determine input and output values for formulae (solve equations).
- Determine and plot the points for different graphs.
- Interpret information and trends communicated through graphs.
- Measure lengths, distances, volumes and mass (weight).
- Convert between units of measurement.
- Draw and interpret scale drawings.
- Use grids, scales and maps.
- Collect information to answer questions.
- Organise data using tallies and tables.
- Summarise data using the measures:
 - mean, median and mode.
- Represent data using various data graphs, including pie charts, histograms and bar graphs.
- List the possible outcomes of an event.
- Estimate the likelihood of different outcomes.
- Critique interpretations of data.
- Formulate questions.
- Round up, round down and round off.
- Describe trends.
- Work with linear and constant relationships.
- Distinguish between piecewise and continuous relationships.
- Read and interpret information presented in tables.
- Anticipate the impact of interest.

So that they are able to:

- Plan personal finances including:
 - understanding income and expenditure to plan a basic budget
 - recognising the impact of interest rates.
- Calculate profit margins, loss and breakeven points in simple transactions.
- Plan and schedule events to meet deadlines and demands.
- Make sense of utility costs such as water, electricity, sewerage and rates.
- Develop a business plan.
- Choose between different options based on their value for money.
- Critique articles and advertisements in the media based on data and illustrated through graphs.
- Make lifestyle choices, such as the food they should eat in relation to the energy they use in their day-to-day lives.
- Calculate and interpret health indicators, such as Body Mass index (BMI).
- Plan for the repayment of a loan and anticipate associated bank costs.
- Sort and classify items according to criteria.
- Read maps to plan trips.
- Read and develop plans for simple structures.
- Understand the role and purpose of the gears on a bicycle.
- Calculate the time it takes to complete a journey.

- Convert between currencies.
- Anticipate which seats in the stadium will give the best view of the game.
- Predict all the possible outcomes of a sports tournament and anticipate the most likely winner.
- Understand that games of chance have no patterns.
- Develop arguments based on facts and the interpretations of facts.
- Use resources in economical and responsible ways.

MATHEMATICS AND MATHEMATICAL LITERACY – SUBJECT CHOICE AND SUBJECT CHANGE POLICY

- (1) Parktown Boys’ High School offers Maths Lit in all three FET grades – Grades 10, 11 and 12.
- (2) We aim to keep as many boys as possible in Maths, but at the same time, we will not force boys to do Mathematics if they don’t wish to take the subject or if they simply cannot master the content. In accordance with this principle:
 - (a) A boy will be encouraged to choose Maths if he manages to pass the subject. No boy will be allowed to change to Maths Lit, at any stage, without the prior counselling of both the boy and his parents, about the implications of the choice, while he is still passing the subject.
 - (b) A boy will be strongly advised to choose Maths Lit, instead of Mathematics, if he consistently fails Maths in his Grade 9 year. Should such a boy insist on choosing Mathematics, the boy and his parents will be counselled about the implications. Such a boy will need to adhere to strict conditions, such as compulsory extra lessons.
- (3) If a boy chooses Mathematics, having failed the subject in Grade 9, he will be strongly advised not to take Science. (To avoid having to change two subjects later.)
- (4) The formal window periods for changes from Maths to Maths Lit, after the initial subject choices at the end of Grade 9 will be as follows:
 - (a) After the June Exam in Grade 10, but no later than the beginning of the third term
 - (b) At the beginning of Grade 11, by 28 February
 - (c) At the beginning of Grade 12, by 31 January
 Learners wanting to change at other times will need a special concession from the Headmaster and Head of Academics to do so.

Advanced Programme Mathematics

Advanced Programme Mathematics (AP Maths in short) is a subject for learners with a special interest in Mathematics. The syllabus is designed to extend and enrich gifted learners and also to help bridge the gap between school Mathematics and university Mathematics.

In this subject we explore Algebra, Calculus, Statistics and Probability Theory in much more detail than is the case in standard School Mathematics. In fact, we even cover many topics from first year university Mathematics.

The subject is a must for learners consistently achieving a distinction in Mathematics, especially if they find Mathematics interesting or intend to study Mathematics, Mathematical Statistics, Physics, Engineering or Actuarial Sciences. Statistics show that students who took AP Maths at school cope substantially better in these fields than students who were not exposed to the subject.

The subject is now timetabled during the school day as well as offered after school hours, (on Tuesday afternoons) by a team of highly qualified teachers. Learners wishing to take this subject must ensure that they are always available to attend these lessons.

A large part of the work is the learner's own responsibility to master, as there is only limited teaching time available. This is certainly not a subject for learners who are not willing to go the extra mile academically.

A learner may not proceed with his choice of AP Maths unless he achieves a Maths mark of 70% or higher in his Grade 9 final exam. A learner will not be allowed to continue with AP Maths if he repeatedly fails the subject, or if we see evidence that the time spent on this subject impacts negatively on his standard school subjects.

AP MATHS – SUBJECT CHOICE POLICY

- (1) Learners will only be allowed to choose AP Maths if they achieve **70% or higher** in their **Grade 9 Final Examinations**. The HOD of Mathematics reserves the right to make exceptions in certain cases, at his own discretion.
- (2) Learners who repeatedly fail AP Maths or appear not to take the subject seriously, may be deregistered from AP Maths at the discretion of the HOD of Mathematics.
- (3) At the discretion of the Head of Academics, learners who fail any other subject may be deregistered from AP Maths so that they could pay more attention to the failing subject.

Physical Sciences

1. Description of the subject in the FET phase divided into grade 10, 11 and 12.

The skills and processes which learners use and develop in the study of Physical Sciences are similar to those used by scientists at work. They build on skills already developed in the General Education and Training band. These are the tools that learners need in order to understand the working of the world. The development of these skills and processes allows learners to solve problems (through the use of increasingly difficult levels of mathematics), think critically, make decisions, find answers and satisfy their curiosity. These skills are the focus of all science learning and assessment activities in classrooms, but cannot be developed in isolation. They are best developed within the context of an expanding framework of scientific knowledge. In addition, learners must be able to use these skills and processes while working with others to achieve common goals. This will require broadening access to appropriate and sufficient resources (research) and the ability to present them in a structured way, including adequate time and space for effective inquiry-based science teaching and learning.

Knowledge in Physical Sciences is organized around six core knowledge areas. These core knowledge areas are broad descriptors and ensure proper planning and clustering of concepts, skills and values to support achievement of learning outcomes. This approach allows learners to learn the prescribed core knowledge and concepts by the end of Grade 12, but with increasing depth and breadth.

Main topics in the FET phase (which are studied with increasingly level of difficulty and depth every year):

Physics

- **Waves:** Properties and characteristics of waves. Sound and light. Electromagnetic waves. Dual nature of light.
- **Mechanics:** Vectors, motion, forces, work, energy, power, impulse and momentum. Accelerated systems. Collisions.
- **Electromagnetism:** Electrostatics. Electric circuits. Magnetism. Electromagnetic induction: motors & generators. AC current.
- **Matter and materials:** Optical phenomena. Physical properties of matter.

Chemistry

- **Matter and materials:** Properties and models for atoms and compounds. Acids and bases. Organic compounds. Gases. Stoichiometry and chemical calculations.

- **Chemical change:** Types of chemical reactions. Organic chemistry. Electrochemistry (redox). Chemical equilibrium. Energy and heat of reactions.
- **Chemical systems:** Inorganic-chemistry industry. Study of Nitrogen, Sulphur and key elements for life. Environmental care.

2. Prescribed assessments

According to the Curriculum Assessment Programme (CAPS), learners are evaluated as follows:

PROGRAMME ASSESSMENT FOR GRADES 10 AND 11						
ASSESSMENT TASKS						END OF THE YEAR EXAM (75%)
TERM 1		TERM 2		TERM 3		TERM 4
Type	%	Type	%	Type	%	Final Examination (2 x 150 marks exams)
Experiment	20	Experiment	20	Project	20	
Control test	10	June Exam	20	Controlled Test	10	
25%						75%

PROGRAMME ASSESSMENT FOR GRADE 12						
ASSESSMENT TASKS						END OF THE YEAR EXAM (75%)
TERM 1		TERM 2		TERM 3		TERM 4
Type	%	Type	%	Type	%	Final Examination (2 x 150 marks exams)
Experiment	15	Experiment	15	Experiment	15	
Control test	10	June Exam	20	Prelim Exam	25	
25%						75%

3. Interesting aspects of Science.

The balance between practical experiments and the study of scientific theory (based on mathematical models) provides our learners with strong fundamentals to understand our physical world, develop logical and critical thinking, succeed in the Senior Certificate Examination and also in further education involving Science at University level.

4. A guideline of suggested requirements achieved in grade 9 to take the subject successfully into the FET phase.

To succeed in and enjoy Physical Sciences, it is recommended that learners who choose the subject have the following characteristics/motivations:

- Good mathematical skills are explicitly advised in order to take Science in Grade 10 (Science and Math Literacy is NOT possible).
- It is recommended that all Science learners do Advance Programme Mathematics as an extra subject.

Mathematical skills required per grade:

- o Grade 10: Full command of fractions & ratios, exponents, linear equations (one variable), square roots and straight lines graphs. Parabolic graphs.
 - o Grade 11: Fair command of plane geometry (triangles, quadrilaterals and circles), vectors, analytic geometry, trigonometry and quadratic equations.
 - o Grade 12: Full command of simultaneous equations. Fair knowledge of logarithmic and exponential functions, irrational numbers and differential calculus.
- Good work ethic (there is no room for “homework not done”).
 - Sense of responsibility, sense of accountability and self motivation.
 - Sense of order in working and in rigorous thinking processes.
 - Capacity to work under pressure, being able to prioritise in the midst of highly demanding academic and extramural activities.
 - Sense of “awe” before the wonders of nature.

5. The possibility of taking Science as an additional subject in grade 12.

Only in very exceptional cases would a learner be accepted into Physical Sciences at a stage later than the beginning of Grade 10.

6. A list of possible tertiary education courses that will require Physical Sciences:

Physical Sciences is absolutely essential for the following degrees:

- BSc (Physics, Chemistry, etc.)
- All types of BSc Engineering (Electrical, Mechanical, Aeronautical, Civil, Industrial, Metallurgy, Chemical, Mining, etc.)
- Biomedical engineering.

Physical Sciences is helpful for the following degrees:

- Medicine.

- Environmental studies.
- Nursing.
- Construction management.

The following degrees do not have Physical Sciences as a requirement for applying to their programmes, but learners who have done Physical Sciences at school benefit highly from the knowledge and thinking-skills they learn in the subject:

- BCom.
- BEcon.
- Sport management.
- Architecture.
- Actuarial Science.
- IT.
- Law.



Life Sciences

Life Sciences is a subject that opens your eyes to the miracle that nature is. It is a subject that teaches the science of life in the context of life. Where else can one find the opportunity to study the mastery of nature and appreciate the grand design that is the world in which we live? This department's focus is knowledge in context, by which is meant not only focusing on the facts of Life Science but actually understanding all that there is to know, taking it out into the real world and being able to understand what is happening around us at all times. Within the three years of senior Life Sciences, the topics range from looking at the smallest of molecules such as DNA to the largest of systems such as the circulatory system. We try to do as many practicals as possible (for example dissecting a heart in Grade 10) which allow the learners to have a hands-on approach to their own learning. Our new aim is to combine Life Sciences with literature and life skills. In all careers involving Life Sciences, literature and research is one of the most vital roles. We are going to allow the learners to interact with biological literature as well as research and reference their own projects. This will definitely allow the learners to be a step above the rest when it is time for them to enter university.

Life Sciences is offered as an 8th subject. There will be a designated teacher each year to help with the understanding of the vast content offered in the subject.

Staff

Mr J de Jong (HOD)

Ms R Zeisberger

Mr I Forbes

Mr A Wessels

Requirements for grade 10

There are no specific requirements for the subject in grade 10. However, it has been noted that if your son achieves greater than 60 % in grade 9 he will cope well with the volume of work in grade 10.

Possible Career and Study opportunities for Life Sciences

Life Sciences courses and careers include Agriculture, Anatomy / Physiology, Bioinformatics / Biotechnology, Botany, Cell Biology, Conservation, Ecology, Environmental Science Jobs, Genetics, Marine Science, Medicine, Natural Resources, Pharmacology, Toxicology, Veterinary Medicine, and Zoology. Courses may be specific to certain universities; however every university will offer at least one of each of the above listed courses.

Geography

Geography is a subject in which we actually live. It is the only subject in which you are able to visualise and “experience” what you learn. What separates humans from all other life is our ability to manipulate our environment to suit our needs. Man has been doing this for over 200 thousand years and continues to do so today. What has become more and more important is our ability to use our resources in a sustainable way so that future generations are entitled to the same benefits. It is through the study of Geography that we gain understanding and knowledge of our environment and the impacts we have on it. Global warming is the leading topic on the global agenda. Its consequences reach into every single aspect of our existence, from our health, our ability to manufacture goods, the price of milk, etc.

By studying Geography, we do not only get learners to understand the world in which they live, but more importantly it teaches us to become respectful of our environment. Ensuring that we will have air to breathe, conservation areas we can enjoy, and water to drink in the future.

Geography is divided into two main sections. There is the theory and map work. The map work section is ongoing as the new theory that is covered is continually being integrated into the map work. For all examinations, a theory paper as well as a map work paper will be written.

Staff

Mr K Wait (HOD)

Mr J Kotwal

Mrs A Chawanda

Mr A Meintjes

Geography in the FET phase:

Grade 10

Topic 1: Geographical skills and techniques

- Using atlases
- Map work skills
- Topographical maps
- Aerial photographs and orthophoto maps
- Geographical Information Systems (GIS)

Topic 2: The atmosphere

- Composition and structure of the atmosphere
- Heating of the atmosphere
- Moisture in the atmosphere
- Reading and interpreting synoptic charts

Topic 3: Geomorphology

- Structure of the Earth
- Plate tectonics
- Folding and faulting
- Earthquakes
- Volcanoes

Topic 4: Population

- Population distribution and density
- Population structure
- Population growth
- Population movements
- HIV and AIDS

Topic 5: Water resources

- Water in the world
- The world's oceans
- Water management in South Africa
- Floods

Grade 11

Topic 1: Map work

- Map work skills
- 1:50 000 topographical maps
- Aerial photographs and orthophoto maps
- Geographical information systems (GIS)
- Using atlases
-

Topic 2: The Atmosphere

- The Earth's energy balance
- Global air circulation
- Africa's weather and climate
- Drought and desertification

Topic 3: Geomorphology

- Topography associated with horizontal strata
- Topography associated with inclined strata
- Topography associated with massive rock structures
- Slopes
- Mass movements and human responses

Topic 4: Development geography

- The concept of development
- Frameworks for development
- Trade and development
- Development issues and challenges
- The role of development and aid

Topic 5: Resources and sustainability

- Using resources
- Soil and soil erosion
- Conventional energy sources and their impact on the environment
- Non-conventional energy sources
- Energy management in South Africa

Grade 12

Topic 1: Map work

- Topographical maps
- Aerial photographs and orthophoto maps
- Geographical information systems (GIS)
- Using atlases

Topic 2: Climate and weather

- Mid-latitude cyclones
- Tropical cyclones
- Sub-tropical anti-cyclones and associated weather patterns
- Valley climates
- Urban climates

Topic 3: Geomorphology

- Drainage systems in South Africa
- Fluvial processes
- Catchments and river management

Topic 4: Rural and Urban settlements

- The study of settlements
- Rural settlements
- Rural settlement issues
- Urban settlements
- Urban hierarchies
- Urban structure and patterns
- Urban settlement issues

Topic 5: Economic geography of South Africa

- Structure of the economy
- Agriculture
- Mining
- Secondary and tertiary sectors
- Strategies for industrial development
- The informal sector

Careers in Geography:

- Cartographer
- GIS Specialist
- Climatologist
- Transportation management
- Environmental management
- Researcher
- Teaching
- Emergency management
- Demographer
- Marketing
- National parks service
- Real estate appraisal
- Urban/community developer and planner



History

Why Study History?

Why study history? The answer is because we virtually must, to gain access to the laboratory of human experience. When we study it reasonably well, and so acquire some usable habits of mind, as well as some basic data about the forces that affect our own lives, we emerge with relevant skills and an enhanced capacity for informed citizenship, critical thinking, and simple awareness. The uses of history are varied. Studying history can help us develop some literally “salable” skills, but its study must not be pinned down to the narrowest utilitarianism. Some history—that confined to personal recollections about changes and continuities in the immediate environment—is essential to function beyond childhood. Some history depends on personal taste, where one finds beauty, the joy of discovery, or intellectual challenge. Between the inescapable minimum and the pleasure of deep commitment comes the history that, through cumulative skill in interpreting the unfolding human record, provides a real grasp of how the world works.—Peter Stearns

Grade 10:

TERM 1	
TOPIC 1	THE WORLD AROUND 1600
	China: A world power in 1368-1644
	Songhai: An African empire in 1340 -1591
	India (Mughal) 1526 - 1858
	European societies
TOPIC 2	EUROPEAN EXPANSION
	America: Spanish conquest *The processes of the conquest
TERM 2	
TOPIC 3	3. THE FRENCH REVOLUTION
	*What is a revolution? *Causes of the French revolution: Conditions in France
TOPIC 4	TRANSFORMATION IN SOUTHERN AFRICA AFTER 1750
	*What was South Africa like in 1750? *Political changes from 1750-1820
	- Interior: Expansion of the southern Tswana Chiefdoms. -In the east: the rise of the Ndwande
TERM 3	
TOPIC 4	4. TRANSFORMATION IN SOUTHERN AFRICA AFTER 1750 (continue)
	*Political revolution 1820-1835 *Kingdoms –Ndwandes-Ndebele (INTRODUCTION)
	*Political revolution between 1820-1835 - Rise of the Zulu kingdom under Dingane. - Shaka: King of the Zulus
TOPIC 5	COLONIAL EXPANSION AFTER 1750
	*Britain takes control of the Cape *Indigenous population driven out or drawn into the labour force
	*Britain takes control of the Cape *Changing labour patterns: Ending slave trade(1807) Slavery (1834)
TERM 4	THE SOUTH AFRICAN WAR AND UNION
	* South Africa on the eve of the war-review the developing of mining and the impact mining had on the Witwatersrand. *Influx of capital and development of mining companies and stock exchange, as well as technologies.

Grade 11

TERM 1	TOPIC
TOPIC 1	COMMUNISM IN RUSSIA 1900-1940
	<ul style="list-style-type: none"> • What is communism • Karl Marx writings • The Revolutions 1905 and its impact
	<ul style="list-style-type: none"> • The Link between revolutions 1905-1917 • The February & Oct Revolutions • Civil war and war communism
	<ul style="list-style-type: none"> • Lenin takes control • Lenin interpretation of Marxism: Marxism-Leninism • The NEP adaptation of Marxism
TOPIC 2	CAPITALISM IN THE USA 1900- 1940
	<ul style="list-style-type: none"> • The nature of Capitalism in the USA • Rags to Riches
	<ul style="list-style-type: none"> • Capitalist Boom of 1920s • The Society of 1920s
	<ul style="list-style-type: none"> • Wall Street Crash 1929 • Political and economic impact of the crash
	<ul style="list-style-type: none"> • New Deal & effects • Analysis of the New Deal • Opposition of New Deal and its criticism
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TERM 2	
TOPIC 3	IDEAS OF RACE IN THE LATE 19TH AND 20TH CENTURIES
	<ul style="list-style-type: none"> • Notions about hierarchies of race in the 19th centuries • Positive and negative impact of eugenics(intro)
	<ul style="list-style-type: none"> • Case study Nazi Germany and the holocaust • Hitler consolidation of power • The creation of racial state in Germany
TERM 3	
TOPIC 4	NATIONALISMS - SOUTH AFRICA,THE MIDDLE EAST AND AFRICA
	<ul style="list-style-type: none"> • What is nationalism • Origins of nationalism • The theory of nationalism
	<ul style="list-style-type: none"> • Rise of Afrikaner nationalism • Afrikaans language
	<ul style="list-style-type: none"> • Definition of a Volk in relation to class • Nationalism in power towards apartheid
	<ul style="list-style-type: none"> • Positive and negative features of nationalism • Destructive side of nationalism

TERM 4 TOPIC 5	APARTHEID SOUTH AFRICA 1940S TO 1960S
	<ul style="list-style-type: none"> • The global pervasiveness of racism • Segregation after the formation of the union
	<ul style="list-style-type: none"> • National party victory 1948 • Why apartheid was adopted
	<ul style="list-style-type: none"> • Legalising apartheid • The creation of apartheid laws
	<ul style="list-style-type: none"> • Overcoming apartheid nature of resistance
	<ul style="list-style-type: none"> • Petitions of the programme of action

Grade 12:

Term 1	CONTENT
	<ul style="list-style-type: none"> • The origins of Cold War <ul style="list-style-type: none"> ○ End of WW2 ○ USSR & USA : creation of sphere of influence <ul style="list-style-type: none"> ▪ policy of containment: Truman Doctrine and Marshall Plan
	<ul style="list-style-type: none"> ○ USSR & USA : creation of sphere of influence <ul style="list-style-type: none"> ▪ Berlin crises (1949 – 1961) ▪ NATO vs. Warsaw Pact
	<ul style="list-style-type: none"> • Case Study: Vietnam (How was a small country like Vietnam able to win a war against the USA? (1954 to 1975) • 1957 – 1965: struggle between the South Vietnamese army and the communist trained rebels (Vietcong) • 1965 – 1969: North Vietnamese – USA struggle • War from a Vietnamese and USA perspective • The war as a global issue • 1969 – 1975: USA withdrawal from Vietnam • How the war is remembered today in the USA and Vietnam.
	<p>What were the ideas that influenced the independent states?</p> <ul style="list-style-type: none"> • Different forms of government: African socialism, Capitalism, Democracy and One-Party State <p>Comparative case studies (1960 to 1980) – not to be examined separately</p> <ul style="list-style-type: none"> • Congo (how Congo became a tool of the Cold War) • Tanzania and African Socialism
	<p>Overview of civil society protests:</p> <ul style="list-style-type: none"> • Women’s liberation and feminist movements in the 1960s and 1970s: a middle class movement in industrialized countries • Women’s identity in South Africa from 1950s to 1970s • The peace movements: disarmament; students and anti-war movements • Civil rights movements
	<p>Case study: the US Civil Rights Movement:</p> <ul style="list-style-type: none"> • Reasons and origins of Civil Rights Movement in the USA

	<ul style="list-style-type: none"> • Role, impact & influence of Martin Luther King and the influence of passive resistance by Gandhi • Forms of protests through civil disobedience: Montgomery bus boycott, sit-ins & marches • School desegregation: case study: Little Rock, Arkansas • Short term and long term gains
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TERM 2	CONTENT
	<p>Case study: The Black Power Movement</p> <ul style="list-style-type: none"> ○ Reasons for the Movement ○ Black Panther ○ Roles of Stokely Carmichael and Malcolm X ○ Short term and long term gains
	<p>The Challenge of Black consciousness to the Apartheid state:</p> <ul style="list-style-type: none"> • The nature and aims of Black Consciousness • The role of Steve Biko with emphasis on his ideas and writing • Black Consciousness Movement
	<ul style="list-style-type: none"> • Black Consciousness perceived as development of Black ‘own affairs’ • The influence of Black Consciousness on the Soweto uprising • The legacy of Black Consciousness on South African politics
	<p>The crisis of Apartheid in the 1980s:</p> <p>Government attempts to reform Apartheid</p> <ul style="list-style-type: none"> • Contradictions of Apartheid emerge; the pass system breaks down; labour movements become more powerful; the dependence of economy on black labour <p>Internal resistance to reforms:</p> <ul style="list-style-type: none"> • Trade Union Movement from 1973 • Response to Botha’s reforms – making the country ungovernable (role of Civics, UDF, MDM, ECC & the Black Sash)
	<p>International response:</p> <ul style="list-style-type: none"> • International anti-Apartheid movements: <ul style="list-style-type: none"> ○ Anti-Apartheid movements in Britain and Ireland
	<p>Negotiated settlement and Government of National Unity:</p> <ul style="list-style-type: none"> • Secret negotiations with the ANC in exile and negotiations with Mandela • Period 1989 – 1991: unbanning, release of prisoners, negotiations & suspension of armed struggle • Breaking down of negotiations: Whites only Referendum, 1990s violence, Record of Understanding and Sunset Clause
	<p>How has SA chosen to remember the past?</p> <ul style="list-style-type: none"> • Reasons for the TRC • Various forms of justice: retributive VS restorative justice • TRC and reconciliation • Amnesty and its problems

Economic & Management Sciences

Staff

The Economic and Management Sciences Department has grown in order to continue providing quality teaching at Parktown. Mrs E Fourie, Miss S de Nicola, Mrs C Buckley, Mr G Bell and Mr S Williams all bring their special talents and creative teaching skills to the classroom. Mrs E Fourie is the Head of Department for Accounting and Business Studies.

Description of the subject in the FET phase divided into grade 10, 11 and 12

In Grade 10 we split EMS in two independent subjects: Accounting or Business Studies – Boys are allowed to do both.

Accounting

Accounting is the discipline of communication, analysis and interpretation of financial information for the making of appropriate and informed decisions. The subject develops learners' knowledge, skills, values, attitudes and ability to make meaningful and informed personal and collaborative financial decisions in economic and social environments.

By engaging in Accounting, learners will be able to:

- Collect, select, record and/or capture analyse and interpret financial data to make informed decisions
- Develop general and specific skills in accounting to integrate theory and practice which could be used for compliance with general accepted accounting practice
- Acquire skills, knowledge, attitudes and values that can contribute directly or indirectly to improvement of standard of living, human development and productivity and create opportunities for all
- Relate skills, knowledge and values to real-world situations in order to ensure the balance between theory and practice, to enter the world of work and/or move to higher education and to encourage self –development

- Organise and manage own finances
- Apply principles to solve problems
- Develop critical, logical and analytical abilities and thought processes to enable them to apply these skills to current and new situations
- Develop the necessary characteristics including
 - ethics
 - sound judgement
 - thoroughness
 - orderliness
 - accuracy
 - neatness and present ability
 - deal confidently with basic demands of an accounting occupation manually and/or electronically

Business Studies

The subject Business Studies deals with knowledge, skills, attitudes and values 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.

PURPOSE

Economic growth and personal financial empowerment are largely dependent on the positive contribution of both business and individuals to the economy. Business takes place in an inherently complex context that requires informed, imaginative, participative, contributing and reflective business practitioners who can dynamically perform a range of interdependent business operations.

The development of these business roles will put learners in a position where they are able to effectively apply knowledge and skills to analyze and deal with different business environments (micro, macro and market), to initiate and carry out business ventures and successfully carry out business operations. These roles and operations can be applied within other organizational structures such as public sector and non- profitable organizations.

This subject ensures 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;

- Be motivated, self-directed, reflective lifelong learners who responsibly manage themselves and their activities while working towards business goals; and
- Be committed to developing themselves and others through business opportunities and ventures.

In addition to being able to secure formal employment, learners need to be in a position to pursue sustainable entrepreneurial and self-employment career pathways. Business Studies also forms the foundation for further business learning opportunities.

SCOPE

Business Studies encompasses relevant and contemporary theory and competence essential for promoting excellence and contributing towards sustainable business enterprises. It embraces constitutional goals and objectives through promoting accessible, legitimate and entrepreneurial business opportunities. The subject also provides opportunities for the learners to consider present day challenges within the enabling South African policy framework. Skills such as decision making, problem solving, creative thinking, systems thinking and effective communication in a competitive and constantly changing environment are critical to this subject.

This subject has the following core features:

- **Business Environment:** This feature focuses on; Micro or Internal environment, Market or Task environment, Macro-environment, Business strategies, Business sector, corporate social responsibility (CSR), Contemporary socioeconomic issues
- **Business Ventures:** This feature focuses on; Business idea, Entrepreneurship, Business plan, Forms of Ownership
- **Business Roles:** This feature focuses on; Business ethics, Professionalism, Critical thinking, Team dynamics, Leadership, Problem-solving, Problem-solving techniques
- **Business Operations:** This feature focuses on; General management, Human Resource function, Purchasing function, Production / Operations function, Financial function, Marketing function, Administration and information systems, Public relations function, Total quality management (TQM)

Interesting aspects of the subject

EDUCATIONAL AND CAREER LINKS

The general principles, concepts and skills in the General Education and Training band, particularly those developed in the Economic and Management Sciences, are further developed in more complex contexts through the subject of Business Studies in the Further Education and Training band. The Topics covered in Business Studies articulate with those of the Management Sciences at both Further Education and Training and Higher Education and Training levels.

Achievements of the Business Studies topics equip the learner with a sound foundation to participate in future commerce, to create self employment and contribute towards economic development.

The introduction of smart boards in some classes has revolutionised teaching and learning in our classrooms. The boys are eager to learn when they can visualise the concepts that are easily projected onto the screens from power point presentations, or even the internet.

Business Studies learners also get the opportunity to visit different Enterprise have seminars with successful South African business Directors, consultants and agents, which equips them with ideas of career paths they want to specialise in.

A guideline of suggested requirements achieved in Grade 9 to take the subject successfully into the FET phase

An average for the Accounting section in grade 9 EMS – 50%

Possibility taking Accounting or Business Studies as an additional subject:

We only offer Business Studies as an additional subject done in the afternoons by one of our highly qualified teachers in this department.

Subject requirements for Tertiary education

Business Studies and Accounting is highly recommended for learners who wants to study a B Com Degree in Management Sciences as well as other programs at Diploma level in Business Administration.

Career Options

If you are a detail-oriented individual with a knack for numbers, creativity, risk taking and financial independence, the field of Business Studies is a good career choice with many options. In addition, you can with Business Studies work in almost any Industry. Hospitals, banks, manufacturing companies or service and most types of business large and small all need someone to manage them.

An individual with a qualification in Management Science is a professional who monitors and heads organisations' performances. This individual maybe a Human Resource specialist, production manager, Risk and investment manager, Real estate manager or agent, Chief Executive Officer, a Director of a Firm. All businesses have got a manager who is in-charge of all operations at different levels.

Another career option in Management Sciences is that of becoming an Entrepreneur. Currently majority of the worlds' richest and financial independent people are products of Management Sciences. In tertiary Institutions the list of courses one could engage in is endless.

Information Technology (IT)

Staff

Mr P Visser (HOD), Mrs B Heron and Mr A Meintjes

Description of the subject in the FET phase

IT focuses on activities that deal with the solution of problems through logical thinking, Information Management and Communication. It also focuses on the development of some of the Computer Applications using current development tools. The subject develops awareness and an understanding of the social, economic and other implications of using computers.

Boys will learn to plan algorithms and program in Scratch in Grade 10 and Delphi in Grades 11 and 12. These are both Object Oriented Programming (OOP) Languages & then SQL (Structured Query Language) will be done in conjunction with Delphi so as to link this language to a Database.

The coding taught will enable boys to understand the principles of computing through the learning of how to deal with Variables, Character Handling & Text Files, Loops, Arrays, Functions and Procedures & Classes in the OOP language all to an advanced level. In addition they will have to work with Databases (MS-ACCESS) to an advanced level. Theory involves the learning of Hardware, Software, Networking, Communication and Socio-Economic Implications of Computing.

Points to consider if taking IT

Since we are in the Information Age of the 21st century, this is a most worthwhile subject to take to enable them to become effective members of a computer-using society.

Boys must have a computer at home so that a version of Delphi can be loaded onto it. They must enjoy both working on a computer and solving problems. There is an annual (non-refundable) levy of R820.00 to cover the costs involved with taking this subject.

REQUIREMENTS for IT

Boys should be getting at least 50% for IT, English and Mathematics in Grade 9.

Tertiary education courses that will require / benefit from IT

- B Com with the Business Information Systems
- Engineering – all disciplines

- Any course that requires extended knowledge of the MS–Office application package.
- Any course that deals with any aspect of COMPUTING (e.g. Networking / Database Management / Design of Computers / Information Systems) or which requires a problem solving approach.

Computer Applications Technology (CAT)

Staff

Mrs B Heron, Mrs M Sarelis & Mr P Visser (HOD)

Description of the subject in the FET phase

CAT is the effective use of information and communication technologies in an end-user computer applications environment in different sectors of society through MS-Office.

CAT equips learners with knowledge, skills, values and attitudes to create, design and communicate information in different electronic formats. It also makes it possible for learners to collect, analyse and edit data and to manipulate, process, present and communicate information to different sectors of society.

Learners will have to work with Word-processors (MS-WORD), Databases (MS-ACCESS) and Spread-sheets (MS- EXCEL) to an advanced level. They will also touch on web-page design. Theory involves the learning of Hardware, Software, Networking, Communication and Socio-Economic Implications of Computing.

Points to consider if taking CAT

It is a great “life skill” subject since we are in the age of computers and learners will be equipped with marketable skills to cope in an information society. Boys must enjoy working on a computer and have access to one at home for homework purposes.

There is an annual levy of R820.00 to cover the costs involved with taking this subject. Most Universities do not recognise CAT as a University entrance subject (ie a mark of over 50% in it does not count towards a UE pass), BUT if the learner acquires a UE pass through his other 4 subjects then his mark for CAT will give him points towards the course he wants to study at University, so he should aim for a good high mark in the subject. UCT does apparently accept CAT as a University entrance subject so learners need to check with the different Universities about this situation.

REQUIREMENTS for CAT

Boys should be at least passing IT at grade 9 level.

Benefits of CAT after school

- All Tertiary courses require the transfer of end-user applications knowledge and skills that CAT offers since there is much typing up & presenting of researched

data required in almost every course. CAT will enhance their further studies in a variety of different fields (e.g. Education, Economics & Accounting, Technology, Tourism)

- Any work environment that particularly requires the extended knowledge of the MS–Office application package.
- Any course that deals with any aspect of COMPUTING (e.g. Networking / Database Management / Design of Computers / Information Systems).

Visual Arts

Visual Arts is called Creative Arts in Grade 8 and 9.

Staff

Mr A Monk (HOD)

Ms R Meissenheimer

Mr J Scott

Visual Arts is divided into two aspects, namely:

- a) Practical work which includes the possibility of Painting, Three Dimensional Interactive Work (Industrial Design), Sculpture, Ceramics, Photography, Print Making etc.
At Parktown Boys' we offer mainly Painting and Industrial Design.
- b) Visual Culture Studies (History of Art), initially has an emphasis on European movements until Matric, when the focus changes to South African Art compared with European and American movements. It then becomes Theme based. e.g. Gender Issues, Art and Politics etc.

The subject is extremely creative and lends itself to a wide variety of personal interpretations. The Visual culture Studies, especially in the matric syllabus, affords tremendous insight into South African culture, history and issues we are confronted with daily, such as those of politics and gender as well as human rights.

Requirements to succeed in this subject are, amongst others, a genuine interest not only in being creative and original, but also a willingness to work extremely hard. One also requires an interest in learning about art from around the world as well as South Africa. Academically at least 50% for Creative Arts at the end of Grade 9 is a prerequisite.

For a variety of reasons, most of which can be gauged from the above information, as well as for logistical reasons, it is not advised to attempt to do Art as an additional subject.

Art would be useful for several University courses including Fine Art, Architecture, Industrial Design, Commercial Art etc. The Design aspect of the course would also be extremely useful to someone intending to enter the field of Engineering.

Studying art at school would be useful from an all round educational point of view, as it would afford you the opportunity you will not get the chance to do later in life.

Art has many career opportunities including: Teaching or lecturing, full time artist, graphic designer, industrial designer, architect, gallery or museum curator, art restorer, art critic, historian, tour guide etc.

If you have any queries, please feel free to contact the Form Tutor, one of the Heads of Department or staff members via the school office or via e-mail using the e-mail addresses below:

EDUCATOR	SUBJECT	E-MAIL ADDRESS
Ms E Richter	English	richtere@parktownboys.com
Mr S Masondo	IsiZulu	masondos@parktownboys.com
Mr A Van Zyl	Life Orientation	vanzyla@parktownboys.com
Mr J Odendaal	Mathematics & AP Maths	odendaalj@parktownboys.com
Mr L Le Roux	Mathematical Literacy	lerouxl@parktownboys.com
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