TECHNICAL SCIENCES

Dear Grade 12 learner

Welcome to Technical Sciences. By now you know that Technical Sciences supports learners in the three focus areas of technology, namely Mechanical, Electrical and Civil Technology. You also know that you have to understand, remember and practice what is taught each day. The purpose of this guide is to show you what you have to learn and do in your preparation for your Final Examination.

CONTENT CHECKLIST

A summary of the prescribed content is provided below.

Paper 1

From Grade 12 only

- Newton's 1st, 2nd and 3rd laws of Motion
- Momentum and Impulse
- Work, Energy and Power
- Elasticity
- Viscosity
- Hydraulics
- Electrostatics
- Electric circuits
- Electromagnetism
- Waves, Sound and Light

Paper 2

From Grade 12 only

- Organic chemistry
- Plastics and polymers
- Electronic properties of matter
- Electrochemical cells
- Alternate energies

ASSESSMENT REQUIREMENTS

School Based Assessment

TERM 1

- PAT Experiment 1
- Control test

TERM 2

- PAT Experiment 2
- June Examination

TERM 3

- PAT Experiment 3
- Trial Exam

One control test, the June examination and the September examination make up the **SBA** mark which is 25% of the final mark.

The **PAT** consists of three experiments which make up 25% of the final mark.

The rest of the marks viz. 50% are allocated to the **Final Examination.**

Telematics Videos
https://qrgo.page.link/XqcTF

Final Examination

You will write two question papers:

- **Paper 1:** Physics — **150 marks - 3hrs**
- **Paper 2:** Chemistry — **75 marks - 1.5hrs**
- The content that will be assessed in each paper is listed in the content checklist.
  Each question paper consists of:
- Multiple choice questions section and
- Structured question section

Tips For Success

1. Teaching time is 4 hours per week. Ensure that you exploit it optimally to learn!
2. Be ahead always. Research, read and calculate daily to know the content and the experiment before the lesson is taught on a daily basis.
3. The building blocks of science knowledge are definitions, laws, principles and concepts. Know and understand them first, before you try to remember and apply them.
4. The subject Technical Sciences uses mathematical functions, concepts, operations and calculus in its definitions, laws and principles. Ensure that you know the basic operations of addition, subtraction, multiplication, division and factorisation in order to work with numbers and variables.
5. In Technical Sciences you are expected to do science and technology experiments.
6. You need to be able to make drawings and graphical representation of your understanding of the concepts.
7. Reading is essential to help formulate a deeper understanding of the subject.
8. Teaching and assessment will be based on technology examples.

SCAN ME!
Technical Sciences Overview

Revision Material Term Three

Revision Material Term Two

Revision Material Term One