

**Curriculum Progress Report**  
**SESSION: 2023 – 2024**  
**Month : September - Grade 12**

Subject	Chapter	Topics Covered	Additional Information
English	Child Language Acquisition	Introducing the stages of language acquisition- before birth and babbling	No. of Worksheets and Assignments completed: 3  No. of unit tests/class tests done: 1
		Introducing the stages of language acquisition- holophrastic and telegraphic	
		Introducing the stages of language acquisition- post-telegraphic and beyond	
	Complete practice on CLA		
English In the World	Introducing English in the World- history		
Subject	Chapter	Topics Covered	Additional Information
Accounting	Preparation of financial statements – limited companies: Published Company Account -22	Understand the nature and purpose of the financial statements of limited companies Prepare additional schedules to the income statement and statement of financial position for limited companies	No. of Worksheets and Assignments completed: 3 No. of Math problems / No. of Sums practices / Exercises completed: N/A No of Lab classes held (if applicable): N/A and Topics Covered: No. of unit tests/class tests done: 3
	Statement of Cash Flow - 23	Prepare a statement of cash flows and statement of financial position in line with IAS7	
	Preparation of financial statements: partnerships : 18	Deal with goodwill, revaluation of assets and changes of partnership arising from the introduction of new partners and/or retirement of existing partners or the dissolution of the partnership	
Subject	Chapter	Topics Covered	Additional Information
	Chapter 2 (Normal contact force and motion in a vertical line)	By the end of the lessons students will be able to : (a) solve complicated and few exam type questions	

Mechanics	Chapter 3 (a) Resolving forces (b) Equilibrium problems (c) Non equilibrium problems (d) Resultant forces and direction of acceleration	By the end of the lessons students will be able to : (a) solve problems based on Resolving Forces(b) solve problems based complicated board and text book questions	No. of Worksheets and Assignments completed: 3 No. of Math problems / No. of Sums practices / Exercises completed: N/A No of Lab classes held (if applicable): and Topics Covered: No. of unit tests/class tests done: 2
	Chapter 4 (Only First Exercise)	By the end of the lessons students will be able to : (a) relate friction with contact force (b) solve simple problems based on friction	



Subject	Chapter	Topics Covered	Additional Information
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Statistics 2	Chapter 2 & 3	Poisson Distribution, Continuous random variables	No. of Worksheets and Assignments completed: 3 No. of Math problems / No. of Sums practices / Exercises completed: N/A No of Lab classes held (if applicable): and Topics Covered: No. of unit tests/class tests done: 2
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Subject	Chapter	Topics Covered	Additional Information
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Chemistry	21 Further aspects of equilibrium	21.1 Conjugate acids and conjugate bases 21.2 pH calculations 21.3 Weak acids: using the acid dissociation constant, $K_a$ 21.4 Buffer solutions 21.5 Equilibrium and solubility 21.6 Partition coefficients	No. of Worksheets and Assignments completed: Chapter: 21-3 WS, Chapter: 22-3 WS, Chapter: 23-2 WS No. of Math problems / No. of Sums practices / Exercises completed: N/A No of Lab classes held (if applicable): NA and Topics Covered: No. of unit tests/class tests done: 2
	22 Reaction Kinetics	22.1 Factors affecting reaction rate 22.2 Rate of reaction 22.3 Rate equations 22.4 Which order of reaction? 22.5 Calculations involving the rate constant, $k$ 22.6 Deducing order of reaction from raw data 22.7 Kinetics and reaction mechanisms 22.8 Catalysis	

Entropy and Gibbs free ene	23.1 Introducing entropy 23.2 Chance and spontaneous change 23.3 Calculating entropy changes 23.4 Entropy, enthalpy changes and Gibbs free energy 23.5 Gibbs free energy 23.6 Gibbs free energy calculations		
Subject	Chapter	Topics Covered	Additional Information
	Chapter 9 Corporate plan	6.2.2 Corporate planning and implementation <ul style="list-style-type: none"> <li>• the meaning and importance of corporate planning</li> <li>• the meaning of corporate culture and its impact on business decision-making</li> <li>• the meaning and importance of transformational leadership</li> <li>• the management and control of strategic change</li> <li>• the meaning and importance of contingency planning and crisis management</li> </ul>	

Business Studies

Chapter 13  
Organisational structure  
(A Level)

7.1.1 The relationship between business objectives and organisational structure

- the purpose and attributes of an organisational structure such as flexibility, meeting the needs of the business, allowing for growth and development and encouraging intrapreneurship,

7.1.2 Types of structure: functional, hierarchical (flat and narrow), matrix

- the advantages and disadvantages of the different types of structure
- why some organisations are structured by product and others by function or geographical area
- the reasons and ways structures change e.g. due to growth or delayering
- the features of a formal structure: levels of hierarchy, chain of command, span of control, responsibility, authority, delegation, accountability, centralised, decentralised

7.1.3 Delegation and accountability

- the relationship between delegation and accountability
- the processes of accountability in a business
- the impact of delegation on a business

7.1.4 Control, authority and trust

- the relationship between span of control and levels of hierarchy
- the difference between authority and responsibility
- the conflicts between control and trust that might arise when delegating

7.1.5 Centralisation and decentralisation

- the impact of centralisation and decentralisation on a business

7.1.6 Line and staff

- examples of and distinctions between line and staff functions and the conflicts between them

No. of Worksheets and Assignments completed:  
3  
No. of Math problems / No. of Sums practices /  
Exercises completed: N/A  
No of Lab classes held (if applicable): and  
Topics Covered:  
No. of unit tests/class tests done: 2

Chapter 14 Business communication	<p>7.2.1 Purposes of communication</p> <ul style="list-style-type: none"> <li>• situations in which communication is essential</li> </ul> <p>7.2.2 Methods of communication</p> <ul style="list-style-type: none"> <li>• the standard methods of communication used in business: spoken, written, electronic, visual</li> <li>• the strengths and weaknesses of the different methods of communication, </li></ul> <p>7.2.3 Channels of communication</p> <ul style="list-style-type: none"> <li>• how communication works within a business</li> <li>• the difference between one- and two-way communication; the difference between vertical and horizontal communication</li> <li>• problems associated with different channels of communication</li> </ul> <p>7.2.4 Barriers to communication</p> <ul style="list-style-type: none"> <li>• barriers to communication and how to overcome them</li> </ul> <p>7.2.5 The role of management in facilitating communication</p> <ul style="list-style-type: none"> <li>• the role of informal communications within a business</li> <li>• ways in which communication can influence the efficiency of a business</li> <li>• ways of improving communication in a given situation</li> </ul>		
Chapter 15 Leadership (A Level)	<p>7.3.1 Leadership</p> <ul style="list-style-type: none"> <li>• the purpose of leadership</li> <li>• leadership roles in business (directors, managers, supervisors)</li> <li>• the qualities of a good leader</li> </ul> <p>7.3.2 Theories of leadership</p> <ul style="list-style-type: none"> <li>• key leadership theories: trait, behavioural, contingency</li> </ul> <p>7.3.3 Emotional intelligence/emotional quotient (EQ)</p> <ul style="list-style-type: none"> <li>• Goleman's four competencies of emotional intelligence and social skills,</li> </ul>		
Subject	Chapter	Topics Covered	Additional Information

Pure Maths 3	Chapter 4 - Differentiation (The product rule, The quotient rule, Derivatives of exponential, natural logarithmic and trigonometric functions)	"Learners will be able to differentiate products, quotients and exponential functions, e.g. $e^x$ , together with constant multiples, sums, differences and composites"	No. of Worksheets and Assignments completed: 3 No. of Math problems / No. of Sums practices / Exercises completed: N/A No of Lab classes held (if applicable): and Topics Covered: No. of unit tests/class tests done: 2
	Chapter 4 - Differentiation (Implicit differentiation, Parametric differentiation)	Find and use the first derivative of a function which e.g., $x^2 + y^2 = x + y + 7$ , e.g., $x = t - e^{2t}$ , $y = t + e^{2t}$ , including use in problems involving tangent and normal	



Subject	Chapter	Topics Covered	Additional Information
		* Describe how to investigate the effect of light intensity and light wavelength on chloroplast suspension	
	13.5 Photosynthesis	Class Test	
	14.1- Homeostasis	* Explain principles of homeostasis * Explain how negative feedback is involved in homeostasis * Describe deamination	
	14.2 Homeostasis	* Describe the structure of human kidney and identify parts of nephron in diagrams * Describe and explain urine formation * Describe detailed structure of Bowmans capsule and PCT and their adaptation for ultrafiltration and selective reabsorption	
	14.3- 4 Homeostasis	* Describe how kidneys control water potential in blood * Explain how osmoregulation is coordinated	

Biology	14.4 Homeostasis	<ul style="list-style-type: none"> <li>* Describe the principles of cell signalling as applied to control of blood glucose concentration</li> <li>* Explain how blood glucose concentration is regulated</li> <li>* Explain how test strips and biosensors are used to measure concentration of glucose in blood and urine and explain the role of glucose oxidase and peroxidase enzymes</li> </ul>	No. of Worksheets and Assignments completed: 4 No. of Math problems / No. of Sums practices / Exercises completed: N/A No of Lab classes held (if applicable): 1 and Topics Covered: Kidney Dissection No. of unit tests/class tests done: 2
	14.5 Homeostasis	<ul style="list-style-type: none"> <li>* Describe the structure and function of guard cell and explain how they regulate the width of the stomatal aperture</li> <li>* Explain that stomata have daily rhythms and respond to changes in the environmental conditions</li> <li>* Describe how abscisic acid is involved in the closure of stomata during water stress</li> </ul>	
	14 Homeostasis: Class test	Review the learning objectives from homeostasis <ul style="list-style-type: none"> <li>* Solve questions from past papers</li> </ul>	
	15.1 Control and coordination	<ul style="list-style-type: none"> <li>* Describe the features of endocrine system with reference to insulin, glucagon and ADH</li> <li>* Compare the ways in which mammals coordinate response using endocrine and nervous system</li> </ul>	
	15.2 Control and coordination	<ul style="list-style-type: none"> <li>* Describe the structure and function of sensory and motor neurones</li> <li>* State the function of intermediate neurones</li> </ul>	
	15.2 Control and coordination	<ul style="list-style-type: none"> <li>* Describe and explain changes to the membrane potential of neurones</li> </ul>	
Subject	Chapter	Topics Covered	Additional Information

CSc	14 Communication and Internet Technologies	<p>Explain why a protocol is essential for communication between computers.</p> <p>Describe protocol implements as a stack, with each layer having its own functionality.</p> <p>Describe the TCP/IP protocol suite.</p> <p>Describe the purpose of the protocols HTTP, FTP, POP3, IMAP, SMTP, BitTorrent.</p> <p>Explain the purpose, benefits and drawbacks of circuit switching and packet switching.</p> <p>Justify the use of packet and/or circuit switching in a scenario.</p>	<p>No. of Worksheets and Assignments completed: 3</p> <p>No. of Math problems / No. of Sums practices / Exercises completed: N/A</p> <p>No of Lab classes held (if applicable): and</p> <p>Topics Covered:</p> <p>No. of unit tests/class tests done: 2</p>
	15.1 Processors, Parallel Processing	<p>Describe Reduced Instruction Set Computers (RISC) and Complex Instruction Set Computers (CISC) processors.</p> <p>Explain the importance and use of pipelining and registers in RISC processors.</p>	
	20.1 Programming Paradigms (OOP)	<p>Use the terminology associated with OOP.</p> <p>Write program code to solve problems by designing appropriate classes and making use of OOP techniques.</p>	



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IT	Ch 16: Graphics Creation (Vector Images)	(Vector Images) create a vector image that meets the requirements of its intended application and audience	<p>No. of Worksheets and Assignments completed: 3</p> <p>No. of Math problems / No. of Sums practices / Exercises completed: Past paper practice of P3 &amp; P4</p> <p>No of Lab classes held (if applicable): All Lab class and Topics Covered:</p> <p>No. of unit tests/class tests done: 2</p>
	Ch 13 : New Emerging technologies	( biometrics, cloud computing, computerassisted translation, Holographic and 4th generation optical data storage,)	
	Ch 19: Animation	Types of Animation, Stage, Importing and creating vector objects, Library and symbols, Importing an image, Text, Layers, Timeline, Key frame, Timings and frame rate, inbetween animation, Motion tween, Bezier Morphing, Breakdown frames, Exporting	

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Law	Chapters: ITCLR, Consideration, Private Nuisance, Rylands v Fletcher	Paper 3: ITCLR, Capacity, Paper 4: Nuisance, Rylands and Vicarious Liability, Past Paper solving	3 Worksheets and 1 Assignment completed
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<p>Chapter 38- Government policies to achieve efficient resource allocation and correct market failure</p>	<ul style="list-style-type: none"> <li>• explain how a range of tools can be used to correct the different forms of market failure including specific and ad vulerum taxes, subsidies, price controls, production quotas, prohibition and licences, regulations and deregulations, direct provision, pollution permits, property rights, privatization. * evaluate the effectiveness of tools used to correct market failure. * define the meaning of government failure in microeconomics intervention. * explain the causes and consequences of government failure.</li> </ul>	
<p>Chapter 39- Equity ans redistribution of income and wealth</p>	<ul style="list-style-type: none"> <li>• explain the difference between equity and equality</li> <li>• explain the difference between equity and efficiency</li> <li>• analyse the distinction between absolute poverty and relative poverty</li> <li>• describe the poverty trap.</li> </ul>	
<p>Chapter 40- Labour market forces and government intervention</p>	<ul style="list-style-type: none"> <li>• define the meaning of marginal revenue product (MRP)</li> <li>• explain why the demand for labour is a derived demand.</li> <li>• analyse factors affecting demand and supply for the labour in a firm or in occupation.</li> <li>• analyse the causes of shifts and movement along the demand curve and supply curve</li> <li>• analyse the wage determination in perfect markets including wage rate and employment in labour market.</li> <li>• explain the determinants for wage differential in labour market. define economic rent and trasfer earnings and also evaluate the factors that affect economic rent and transfer earnings.</li> </ul>	
<p>Chapter 41- The circular flow of income</p>	<ul style="list-style-type: none"> <li>• explain the meaning of multiplier.</li> <li>• calculate the multiplier using formula for closed economy and open market economy.</li> <li>• calculate the average and marginal propensity to consume, save and import, average and marginal rate of tax.</li> <li>• calculate the effect of changing aggregate demad on national income using multiplier.</li> <li>• explain the determinants of investment and difference between autonomous and induced investment.</li> <li>• explain the meaning of accelerator</li> <li>• analyse the determinants of government spending and net exports, inflationary and deflationary gap.</li> </ul>	

Economics

Chapter 34 - Types of cost, revenue and profit, short-run and longrun production

- explain the short-run production function, including: fixed and variable factors of production; total product, average product and marginal product; the law of diminishing returns (law of variable proportions)
- calculate total product, average product and marginal product
- explain the short-run cost function, including: fixed costs (FC) and variable costs (VC); total, average and marginal costs (TC, AC, MC); the shape of short-run average cost and marginal cost curves
- calculate fixed costs and variable costs, and total, average and marginal costs
- explain the long-run production function, including no fixed factors of production and returns to scale
- explain the long-run cost function, including the shape of the long-run average cost curve and the minimum efficient scale
- analyse the relationship between economies of scale and decreasing average costs
- explain internal economies of scale and external economies of scale
- explain internal diseconomies of scale and external diseconomies of scale
- define the meaning of total, average and marginal revenue
- calculate total, average and marginal revenue
- define the meaning of normal, subnormal and supernormal profit
- calculate supernormal and subnormal profit

No. of Worksheets and Assignments completed:  
2

No. of unit tests/class tests done: 2

	Chapter 42- Economics growth and sustainability	<ul style="list-style-type: none"> <li>• explain the difference between actual and potential economics growth in national output.</li> <li>• explain the causes and consequences of positive and negative output gap.</li> <li>• describe the phase of business cycle.</li> <li>• analyse the causes of business cycle</li> <li>• explain the role automatic stabilizers</li> <li>• evaluate the effectiveness of policies to promote economic growth.</li> <li>• explain the meaning of inclusive economic growth, meaning of sustainable economic growth</li> <li>• explain the difference between using and conserving resources</li> <li>• analyse the impact of economic growth on the environment and climate change.</li> </ul>	
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Psychology			No. of Worksheets and Assignments completed: 3 No. of Math problems / No. of Sums practices / Exercises completed: N/A No of Lab classes held (if applicable): and Topics Covered: No. of unit tests/class tests done: 2
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Chapter	Chapter	Topics Covered	Additional Information
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	<p>6 Oscillations</p>	<p>To be able to understand and use the terms displacement, amplitude, period, frequency, angular frequency and phase difference in the context of oscillations</p> <p>Use <math>a = -\omega^2 x</math> and recall and use, as a solution to this equation, <math>x = x_0 \sin \omega t</math></p> <p>Use the equations <math>v = v_0 \cos \omega t</math> and <math>v = \pm \omega (x_0^2 - x^2)</math>.</p> <p>Analyse and interpret graphical representations of the variations of displacement, velocity and acceleration for simple harmonic motion</p> <p>Describe the interchange between kinetic and potential energy during simple harmonic motion</p> <p>To be able to understand that a resistive force acting on an oscillating system causes damping.</p> <p>To be able to understand and use the terms light, critical and heavy damping and sketch displacement–time graphs illustrating these types of damping</p> <p>To be able to understand that resonance involves a maximum amplitude of oscillations and that this occurs when an oscillating system is forced to oscillate at its natural frequency</p>	<p>No. of Worksheets and Assignments completed: 3</p> <p>No. of Math problems / No. of Sums practices / Exercises completed: N/A</p>
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Physics

3. Temperature	<p>To be able to understand that (thermal) energy is transferred from a region of higher temperature to a region of lower temperature</p> <p>To be able to understand that regions of equal temperature are in thermal equilibrium</p> <p>Understand that a physical property that varies with temperature may be used for the measurement of temperature and state examples of such properties</p> <p>Understand that the scale of thermodynamic temperature does not depend on the property of any particular substance.</p> <p>Convert temperatures between kelvin and degrees Celsius and recall that <math>T / K = \theta / ^\circ C + 273.15</math>.</p> <p>Understand that the lowest possible temperature is zero kelvin on the thermodynamic temperature scale and that this is known as absolute zero</p> <p>To be able to define and use specific heat capacity</p> <p>To be able to distinguish between specific latent heat of fusion and specific latent heat of evaporation</p> <p>To be able to understand that amount of substance is an SI base quantity with the base unit mol</p>	<p>No of Lab classes held (if applicable):    and Topics Covered: No. of unit tests/class tests done: 2</p>
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<p>4 Ideal gases</p>	<p>To be able to use molar quantities where one mole of any substance is the amount containing a number of particles of that substance equal to the Avogadro constant <math>N(A)</math></p> <p>To be able to make understand that a gas obeying <math>pV \propto T</math>, where <math>T</math> is the thermodynamic temperature, is known as an ideal gas.</p> <p>Recall and use the equation of state for an ideal gas expressed as <math>pV = nRT</math>, where <math>n</math> = amount of substance (number of moles) and as <math>pV = NkT</math>, where <math>N</math> = number of molecules</p> <p>To be able to recall that the Boltzmann constant <math>k</math> is given by <math>k = R / N_A</math></p> <p>To be able state the basic assumptions of the kinetic theory of gases</p> <p>To be able explain how molecular movement causes the pressure exerted by a gas and derive and use the relationship <math>pV = 1/3Nm\langle c^2 \rangle</math>, where <math>\langle c^2 \rangle</math> is the mean-square speed</p> <p>To be able understand that the root-mean square speed <math>c</math> (r.m.s.) is given by <math>\langle c^2 \rangle</math></p> <p>To be able compare <math>pV = 1/3Nm\langle c^2 \rangle</math> with <math>pV = NkT</math> to deduce that the average translational kinetic energy of a molecule is <math>3/2 kT</math></p> <p>To be able to understand that internal energy is determined by the state of the system and that it can be expressed as the sum of a random distribution of kinetic and potential energies associated with the molecules of a system</p> <p>To be able relate a rise in temperature of an object to an increase in its internal energy</p>	<p>No. of Worksheets and Assignments completed: 3</p> <p>No. of Math problems / No. of Sums practices / Exercises completed: N/A</p> <p>No of Lab classes held (if applicable): and</p> <p>Topics Covered:</p> <p>No. of unit tests/class tests done: 2</p>
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5 Thermodynamics

To be able recall and use  $W = p\Delta V$  for the work done when the volume of a gas changes at constant pressure and understand the difference between the work done by the gas and the work done on the gas.

To be able recall and use the first law of thermodynamics  $\Delta U = q + W$  expressed in terms of the increase in internal energy, the heating of the system (energy transferred to the system by heating) and the work done on the system.