

SCHEME OF WORK ON ALL THE SUBJECTS IN SS 3

COMPULSORY SUBJECTS

ENGLISH LANGUAGE SS 3 FIRST TERM

WEEK	TOPIC	CONTENT	ACTIVITIES
1	Speech	More on consonant sounds in sentences	Practice of rising and falling tones
	Vocabulary	Words associated with culture, development institutions and ceremonies	Students mention and describe cultural ceremonies in their places.
	Comprehension summary	Silent reading of material that are topical	Students read articles and passages from their textbooks. They answer questions and summarise the points.
	Structure	Revision of nouns and noun phrases	Teacher revises nouns, and students give examples.
	Continuous writing	Expository composition reflecting current issues	Teacher and students discuss the topics; students develop their essays based on points raised.
2.	Speech	More practice with intonation The WH questions	Rising tone is indicated with an arrow while falling tone is marked.
	Vocabulary	Words associated with culture continued	Students discuss religions and marriages rites, burial etc in their culture.
	Comprehension summary	Points to note in writing summary	Student's identity main points from a comprehension

			passage. They phrase them into correct sentences.
	Structure	Functions of noun phrases in sentences – subject of sentences	Students identify noun phrases, using definite articles. Eg. <u>The school, the head boy. Mr. president. The Honourable Minister</u> and their functions as subject sentence.
	Continuous Writing	Exposing essays continued	Students write on electronics, drug abuse, examination malpractice or excursion.
3	Speech	Introduction practice using tag – questions	Students learn how to tag questions in rising and falling tones. Eg. <u>You came late, didn't you? today is October the 6th isn't it?</u>
	Comprehension/Summary	Reading for contextual meaning of words	Students learn to distinguish words in isolation from words in contextual. Eg. <u>Chair + Man</u> is not the same as <u>chairman</u> .
	Vocabulary	Words associated with motor vehicles	Teacher leads students to mention and discuss the parts and functions of a motor vehicle.
	Structure	Verbs and verb phrases	Teacher revises verbs and verb phrases with students.
	Continuous writing	Narrative Essays	Students narrate factual or fictional stories in a coherent order.

4	Speech	Listening to speeches and taking notes	Students listen to the teachers and note rising and falling tones.
	Vocabulary	Words associated with road travel	Students relate their travel experience using appropriate words.
	Comprehension/Summary	Identifying topic sentence in paragraph	Students read a paragraph of about 5 paragraphs and identify the topic sentence for summary.
	Continuous Writing	Descriptive essays	Students write on the recent journey they undertook by.
5	Speech	More on vowel sounds – monotonies and diphthongs	Students practice to contract /ae/ad/a:/; with /a/
	Vocabulary	Words associated with travelling control	Students and teachers discuss words related to road travel – <u>highway patrol</u> , <u>toll gate</u> , <u>vulcamser</u> , <u>mechanic flat tyre</u> , etc.
	Comprehension/Summary	Textbook passage on travelling generally	Students read, discuss and answer comprehension question.
	Structure	Modal auxiliary verbs forms and uses	Words like <u>can</u> , <u>will</u> , <u>shall</u> , <u>would</u> , <u>could</u> , <u>must</u> , <u>may</u> etc are explained by the teacher.
	Continuous writing	Letters – informal letters and features	Address, date, salutation and subscription for informal letters.

6	Speech	Words with 2 consonant dusters occurring or final position	Eg. <u>sports, bags, mops, dolls, tops,</u> etc are practiced aloud.
	Vocabulary	Words associated with government and administration	Students read and pick words from a passage from the textbook on government, or give their own examples of words on administration.
	Comprehension/summary	A passage on government or administration.	Students read and summarize the passage
	Structure	Adjectival clauses	Teacher distinguishes clauses from phrases sentence, etc. student identify main and subordinate clauses, and their functions.
	Continuous writing	Summarizing in a specified number of sentences	Rubrics from examination papers should guide teacher in directing the exercise.
7	Speech	Listening to oral presentation by student on a given topic.	Teacher and students listen and comment on stress and intonation especially rising and falling tones and consonant.
	Vocabulary	Idioma and idiomatic expressions.	Use of phrasal verbs an idiomatic expressions. Eg. <u>take up, take off, take after, take in,</u> etc.
	Comprehension/summary	Reading for implied measuring	Teacher and students read a passage and study the deep meaning.

	Structure	Sentence analysis simple, compound, complex sentences	Students and teachers identify main verbs, finite verbs etc in analysis sentences.
	Continuous writing	Letters-semi-formal letter writing	Address, date, solution and subscription for semi-formal letters.
8	Speech	Test of rhyming	Mineral pairs of homophones, eg. fair/fare/air red/read [pt] maid/made, etcare pronounced alike.
	Vocabulary	Words associated with science and technology	Students mention and discuss current vocabulary <u>cell phone Sms, ping, email browse upload, download,</u> etc.
	Comprehension/summary	Reading to identify the writers purpose	Students read a passage from their text or newspapers, if possible on ICT they summarize the writer's purpose.
	Structure	Identify grammatical names and functions	Teachers demonstrates with ample examples adverbial clauses and their functions in selected sentence
	Continuous writing	Article writing for newspaper and magazines'	Students are shown samples of articles from newspapers they try to write theirs on any topic their interests them.
9	Speech	Words with 3 consonants dusters are the final position	Eg. <u>aunts, crafts shifts, principles, elephant, eagles</u> etc.

	Vocabulary	Foreign elements in English, French words	A list of loan words from French <u>vis-a-vis</u> , <u>genre</u> , <u>sachet</u> , <u>bouquet</u> , <u>abattoir</u> , <u>chef</u> etc.
	Comprehension/summary	Reading and listening for main points	Group reading, one group reads the other listens, vice versa.
	Structure	Grammatical names and functions commands	Adverbial clauses underlined in reading passages for identification.
	Continuous writing	Reading and summarizing selected passage	Points in summary writing – paraphrasing, no detrain punctuation etc.
10	Speech	Word stress	Two syllable words stressed on the first syllable, table, comfort, export, import, tailor etc.
	Vocabulary	Identification of more two syllable words stressed on the first syllable	A text book passage for students to read and underline the expected words for oral practice.
	Comprehension/summary	Reading and answer questions on a given passage	Appropriate textbook passage to read and answer questions on.
	Structures	Subjects + verb agreement	Ample examples with present simple tense.
	Continuous writing	Paraphrasing a prose passage	Students paraphrase a textbook passage.
11	Speech	Sentence stress-emphatic stress	Differentiation between normal stress and emphatic stress with ample example.

	Vocabulary	Collocations eg whims and caprices, hook, line and sinker	Teacher lists such collocations as <u>hue</u> and <u>cry</u> , <u>ups</u> and <u>down</u> , <u>pros</u> and <u>cons</u> etc and explains their uses to the students.
	Comprehension/summary	Reading argumentative passage	Students summarize an argumentative passage.
12	Speech	Word-stress on 3 syllable words on the first syllable	Eg Policy, monitor, embassy, argument, interim, analyst, AB domen etc.
	General Revision	Revision	Revision
13	Examination	Examination	Examination

**ENGLISH LANGUAGE
SS III 2nd TERM**

WEEK	TOPIC	CONTENT	ACTIVITIES
1	Revision	Revision of WAEC, NECO, SSCE general instructions and requirement	Sample or past question papers on English language are reviewed
2.	Speech	Vowels consonant in minimal pairs /i/aw/i:, /ae/aw/a:/	Teacher draws up minimal pairs and drills the students consonant to them eg bit/beat, fit/feet, wick/weak, back/bark, fat/fart, cat/cart.
	Vocabulary	Words associated with law and order	The registers of crime and criminality, law and order are studied, words like <u>accused</u> , <u>suspect</u> , <u>arrest</u> , <u>counsel</u> , <u>prosecutor</u> , <u>defence</u> , <u>lawyer</u> etc.

	Comprehension summary	Reading a passage on law and order	Students read selected passages and answer questions.
	Structure	Revising pronouns and their uses	Subject and object pronouns are consonant and practiced eg I/me, we/us, they/them, he/him, and she/her.
	Continuous writing	Argumentative, Essay, Debates	Features of both forms of writing are treated. Students write according to the form.
3	Speech	Four consonant words occurring at the final position	Ample examples of such words, e.g <u>sixths</u> , <u>glimpsed</u> , <u>prompt</u> , <u>tempts</u> , etc.
	Vocabulary	Register of law and order control	More examples of words from the law – <u>judge</u> , <u>magistrate</u> , <u>bailiff</u> , <u>remand</u> , <u>acquitted</u> , <u>sentence</u> , etc.
	Comprehension/Summary	Guidelines on answering questions on a given passage	Points to note in answering comprehension questions are highlighted. Students summarize the passage.
	Structure	Adjuncts forms and functions	Teacher and students identify and explain the forms and functions of adjuncts in clauses of <u>time</u> , <u>place</u> , <u>manner</u> , <u>comparison</u> , <u>result</u> , etc from sentences.
	Continuous writing	Report writing	Teacher helps to distinguish report from minutes so that students can write each well.

4	Speech	Consonant contrasts	Minimal pairs of the words that high light the different sounds. eg kits/kids, feats/feeds, ferry/very, leaf/leave etc.
	Vocabulary	Registers for ICT	Words such as microchip, data, processing, bytes and software, etc are discussed.
	Comprehension/Summary	Differentiating phrases from clauses	Teacher revises finite and non-infinite verbs, main and subordinate clauses as well as punctuation marks.
	Continuous writing	Writing speeches	Students are guided to write valedictory speeches, welcome address or keynote address.
5	Examination		

**GENERAL MATHEMATICS
SS 3 FIRST TERM**

WEEK	TOPIC / CONTENT	ACTIVITIES
1	MATRICES I i. Definition of matrix ii. Order and notation of matrix iii. Types of matrices (null, unit etc.) iv. Addition and subtraction of matrices v. Scalar multiplication of two by two matrices (2x2) and three by three (3x3) matrix	Teacher: Leads students to define a matrix. Leads students to understand the notations of matrices - identifies the different t types of matrices and performs the addition and subtraction operation - perform scalar multiplication of two by two matrices and three by three matrices. Students: Define matrix, identify matrix notation, identify different types of matrices, perform the operation of addition and subtraction of matrices. Perform the scalar multiplication of 2x2 and 3x3 matrices. Instructional Resources:

		Matrix charts, matrix addition charts, subtraction charts, determinant charts, computer assorted instructional material.
2	MATRICES II i. Transpose of a matrix ii. Determinant of a matrix (2x2) and (3x3) iii. Solution of simultaneous equations using determinant method (two equations in two unknown and three equations in three unknowns). iv. Inverse of 2 x2 matrix.	Teacher: Leads students to find transpose of a matrix by interchanging the rows with column -calculates the determinant of a matrix or matrices -applies determinant of matrices to solutions of simultaneous equations in two unknown and three unknowns Students: Find the transpose of a matrix and calculate the determinant of matrices. -applies determinant of matrices to solutions of simultaneous equations. Instructional Resources: Matrix charts, matrix additions charts, subtraction charts, determinant charts, computer assorted instructional material.
3	ARITHMETIC OF FINANCE i. Revision of simple interest ii. Compound interest including arithmetic of finance iii. Definition and calculation of depreciation iv. Definition and determination of annuity.	Teacher: Guides students to recall formula for calculating interest and derive the formula for computing compound interest and use of table in compound interest. Guides students to define and compute depreciation value of an item. Guides students to define and determine the annuity. Students: Calculate the simple interest and compound interest with the given formula. And table of logarithm in compound interest. Define and compute the value, compute the annuity. Instructional Resources: Charts, solution charts of logarithm on compound interest, solution chart on bond and debentures, solution charts of rate, taxes and value added tax.
4	ARITHMETIC OF FINANCE II	Teacher: Guides students to define and compute the amortization.

	<p>i. Definition and computation of amortization.</p> <p>ii. Solving problems in capital market e.g. bonds and debentures, shares, rate, income tax and value added tax.</p>	<p>Guides students to calculate interest on bonds and debentures, shares, rate, income tax and value added tax using logarithm table.</p> <p>Students: Compute amortization Calculate interest on bonds and debentures using logarithm table.</p> <p>Instructional Materials: Solution chart of logarithm on compound interest. Solution charts on logarithm on bond and debentures, logarithm table. Solution charts of rates, taxes and value added tax. (Excursion to stock exchange or inland revenue offices could be an added advantage. Stock exchange expert can also be invited to do simple calculations.</p>
5	<p>APPLICATION OF LINEAR AND QUADRATIC EQUATION</p> <p>i. Revision of solution of simultaneous linear equations and quadratic equations.</p> <p>ii. Word problem on linear equations.</p> <p>iii. Word problem on simultaneous linear equations.</p> <p>iv. Word problem on simultaneous equations one linear one quadratic</p> <p>v. Application to capital market.</p>	<p>Teacher: Displays chart of simple linear and quadratic equation. -revises the solution of simultaneous linear and quadratic equations. -guides students to discover how word problems can be interpreted into: linear, quadratic, simultaneous equation and quadratic equations one linear one quadratic.</p> <p>Students: Study the chart; solve the solution of simultaneous linear and quadratic equation. Use steps given by the teacher to solve word problems.</p> <p>Instructional Resources: Solution chart of simultaneous linear and quadratic equation.</p>
6	<p>TRIGONOMETRY</p> <p>i. Graph of trigonometric functions (sine and cosine graph for angles $0 \leq x \leq 360^\circ$)</p> <p>ii. Interpretation of graphs of trigonometric functions.</p>	<p>Teacher: Guides students to construct tables of values for sine and cosine. Plots graphs of sine and cosine for $0^\circ \leq x \leq 360^\circ$ Interprets the graph and read out given values.</p> <p>Students: Construct table of values for $0^\circ \leq x \leq 360^\circ$. Plot the graphs of the tables of values. Interpret and read out given values.</p>

		<p>Instructional Resources: Graph board, graph books, pencil, ruler, broom stick/twine. (graph board and books mandatory)</p>
7	<p>SURFACE AREA AND VOLUME OF SPHERE</p> <p>i. Volume of a sphere ii. Surface area of a sphere iii. Volume of hemisphere (half of sphere) iv. Surface area of hemisphere.</p>	<p>Teacher: Brings cylinders, cone and spheres to the class. Determines the volume of a sphere practically by filling a cone and a cylinder with water/sand and then pouring them in the sphere. Notes the height of the cylinder and the diameter of the sphere. Leads students to find the volume of the sphere by formula and apply to solve problems. Brings a sphere to class and explain the concept of surface area, find the formula and solve problems.</p> <p>Students: Study the cylinder, cone and sphere. -participate in finding the volume of the sphere practically. -Find the formula for volume and apply it to solve problems Note the concept and find the surface area.</p> <p>Instructional Resources: Cylinder tin, sphere, cone, spherical globe etc.</p>
8	<p>THE EARTH AS A SPHERE</p> <p>i. Describe the earth as a sphere and identification of the line of longitude (meridian), latitude, equator, north pole and south pole, small circle and great circle. ii. Distance along the great circle iii. Radius of parallel of latitudes iv. Distance along the parallel of latitudes. v. Mathematical problems on earth as sphere.</p>	<p>Teacher: Guides students to revise the concepts of circles and spheres. Describes the earth a sphere. Brings skeletal and real globe to class. Leads students to identify the following North and South, Poles, Lines of longitudes and latitude, small circles and great circles, meridian and equator, parallel of latitude, radius of parallel of latitude. Radius of Earth, Deduce the formula for distance along great circle, distance along parallel of latitude. Leads students to solve problems on longitude and latitude.</p> <p>Students: Study the skeletal and the real globe;, participate in identification and locations. Solve given problems on longitude and latitude.</p> <p>Instructional Resources:</p>

		Circles, spheres, real globe, skeletal globe, charts, charts of problems on longitude and latitude.
9	CO-ORDINATE GEOMETRY I i. Identification of Cartesian rectangular coordinate (x, y). ii. Drawing and interpretation of linear graph iii. Distance between two points iv. Mid- point of line joining two points v. Practical application of coordinate geometry.	Teacher: Leads students to understand the relative positions of a point in the (x-y) plane. The abscissa (x-axis), ordinate (y-axis) and origin (O) of x-y plane. -plots linear graph in the (x-y) plane -determines the distance between two coordinate points -calculates the midpoint of the line joining two points. Students: Plot linear graph in the x-y plane. Determine the length and midpoint of a line using the coordinate system. Instructional Resources: Graph board, graph books, and coordinate graph charts. Graph board line, mathematical instrument.
10	COORDINATE GEOMETRY II 1. Gradient of a straight line and y-intercept. 2. Equation of a straight line 3. Angle between two intersecting lines 4. Condition for parallel line and perpendicular line 5. Practical application of coordinate geometry.	Teacher: Leads students to define gradient and intercept of lines and determine them -writes equation of a straight line. -calculates the angle between two intersecting straight lines -leads students to appreciate the application of linear graphs to real life situation. Students: Define and determine gradient and intercepts. -write the equation of a straight line and calculate the angle between the intersection of two straight lines. -apply the concept of linear graphs to real life situation. Instructional Resources: Graph board, graph books, graph charts etc.
11	DIFFERENTIATION I 1. Meaning of differentiation 2. Differentiation from first principle	Teacher: Leads students to define differentiation and explain the meaning of derived function, -

	<p>3. Technique of differentiation (General rule) 4. Standard derivative 5. Differentiation of polynomials 6. Rules of differentiation (sum and difference) 7. Differentiation of trigonometrically functions.</p>	<p>Differentiates functions from first principles for functions like $y=x$, $y=x^2$, $y=x^3$, $y = x^2+5x+7$, etc. -interprets the standard derivatives of some basic functions. -solves problems on differentiation using the sum and difference rule. Students: Define and explain the differentiation and the meaning of derived function -perform differentiation from first principles -apply the rules of differentiation. Instructional Resources: Standard derivative charts, computer assisted instructional materials.</p>
12	<p>DIFFERENTIATION II 1. Rule of differentiation of sum, difference product, quotient and function- of- function (composite function) 2. Application of differentiation in determining maximum and minimum point. Acceleration, velocity and rate of change.</p>	<p>Teacher: Leads students to solve problems on differentiation using the rules of differentiation i) $\frac{d(u+v)}{dx} = \frac{du}{dx} + \frac{dv}{dx}$ ii) $\frac{d(u-v)}{dx} = \frac{du}{dx} - \frac{dv}{dx}$ iii) $\frac{d(uv)}{dx} = v\frac{du}{dx} + u\frac{dv}{dx}$ iv) $\frac{d\left(\frac{u}{v}\right)}{dx} = \frac{v\frac{du}{dx} - u\frac{dv}{dx}}{v^2}$ v) If $y = U^n$ $\frac{dy}{dx} = \frac{dy}{du} \times \frac{du}{dx}$ e.g. If $y = (3x^2+5)^6$ let $3x^2 + 5;$ $\frac{du}{dx} = 6x$ $y = u^6; \frac{du}{dx} = 6x$ $\frac{dy}{dx} = \frac{dy}{du} \times \frac{du}{dx}$ $= 6(3x^2 + 5)^5 \times 6x$</p>

		<p>Students: Apply the rules of differentiation to solve related problems. -apply differentiation in solving life problems and in capital market issues.</p> <p>Instructional Resources: Standard derivative charts, computer assisted instructional materials.</p>
13	Revision	Revision
14	Examinations	Examinations

**GENERAL MATHEMATICS
SS 3 SECOND TERM**

WEEK	TOPIC / CONTENT	ACTIVITIES
1	<p>INTEGRATION I</p> <ol style="list-style-type: none"> 1. Integration as anti-differentiation 2. Techniques of integration (standard intergral) 3. Integration of algebraic functions 4. Special integrals 5. Integration by substitution 	<p>Teacher: Guides students to understand that integration is the reverse of differentiation. Leads students to integral functions using (a) Substitution method, (b) integration by parts (c) Integration by partial fractions.</p> <p>Students: Perform differentiation of a function and integrate the same function to show the reversed forms of differentiations and interpretation. Leads students to integrate functions using a. Substitution method b. Integration by partial fractions.</p> <p>Instructional Resources: Integration charts, standard integral charts etc.</p>
2	<p>INTEGRATION II</p> <ol style="list-style-type: none"> i. Integration of trigonometric functions ii. Integration by part iii. Integration by partial fraction iv. Application of integration – the use of Simpson’s rule to find area under the curve. v. Integration of exponential function. 	<p>Teacher: Guides students to integrate trigonometric functions like sine, cosine, and tangents. Leads students to integrate functions using i. Substitution method ii. Integration by part iii. Integration by partial functions.</p> <p>Students: Solve problems on integration using: -substitution method -integration by part method</p>

		<p>-integration by partial functions method -should apply integration to real life situation and capital market issues. Instructional Resources: Integration charts, standard integral charts etc.</p>
3	<p>LOGARITHMS ai) Revision of law of indices ii) Revision of the use of logarithm table to calculate logarithm of numbers bi) Theory of logarithm ii) Rules connecting logarithm $\text{Log}(pq) = \log p - \log q$ $\text{Log}(p/q) = \log p - \log q$</p> <p>$\text{Log}_a x^n = n \log_a x$ etc.</p>	<p>Teacher: Brings the logarithm rules chart and solution chart of logarithm to the classroom Guides students to revise the use of logarithm rules. - revises the use of logarithm table in problems involving calculations</p> <p>Students: Study the two charts. Deduce laws of logarithm especially $\text{Log}_{10}(pq) = \log_{10} p + \log_{10} q$ $\text{Log}_{10}(p/q) = \log_{10} p - \log_{10} q$ $\text{Log}_{10} p^n = n \log_{10} p$ Verify logarithm laws with simple exercise. Revise the use of logarithm table to solve problems involving calculations. Instructional Resources: Logarithm law chart, solution chart of logarithm, logarithm table.</p>
4	Revision	Revision
5	Examinations	Examinations

**CIVIC EDUCATION
SS 3 FIRST TERM**

WEEK	TOPIC/ CONTENT	ACTIVITIES
1	POPULAR PARTICIPATION Types of popular participation – political, economic	Teacher: Identify the various types of popular participation. Explain and discuss the popular participation to the students.
2	POPULAR PARTICIPATION CONT. Need for popular participation in the society.	Teacher: Explain the meaning of popular participation to the student.
3	POPULAR PARTICIPATION Traditional and modern mode of popular participation.	Teacher: Explain the meaning of popular participation.
4	DEMOCRACY Meaning and definition of Democracy.	Teacher: Define and explain the meaning of democracy. Demonstrate how election is conducted.
5	DEMOCRACY CONTINUED Importance and problems of Democracy	Teacher: Define and explain the meaning of democracy. Demonstrate how election is conducted.
6	DEMOCRACY CONTINUED Process of Democracy.	Teacher: Define and explain the meaning of democracy. Demonstrate how election is conducted.
7	CONSTITUTIONAL DEMOCRACY i. Meaning and types of constitutional democracy ii. Concepts of constitutional democracy.	Teacher: Lead discussion on the meaning of democracy. Lead students to identify the importance and problems of democracy. Guide students to enumerate and explain the process of democracy.
8	CONSTITUTIONAL DEMOCRACY i. Features of constitutional democracy e.g. popular sovereignty, majority rule and minority rights	Teacher: Lead discussion on the meaning of democracy. Lead students to identify the importance and problems of democracy. Guide students to enumerate and explain the process of democracy.

9	CONSTITUTIONAL DEMOCRACY CONT. Advantages of constitutional Democracy.	Teacher: Lead discussion on the meaning of democracy. Lead students to identify the importance and problems of democracy. Guide students to enumerate and explain the process of democracy.
10	CONSTITUTIONAL DEMOCRACY CONT. Disadvantages of constitutional Democracy	Teacher: Lead discussion on the meaning of democracy. Lead students to identify the importance and problems of democracy. Guide students to enumerate and explain the process of democracy.
11	Revision	Revision
12	Examination	Examination

**CIVIC EDUCATION
SS 3 SECOND TERM**

WEEK	TOPIC/ CONTENT	ACTIVITIES
1	RULE OF LAW i. Meaning and definition of Rule of Law. ii. Importance of Rule of Law	Teacher: Explain the meaning and importance of rule of law
2	RULE OF LAW CONTINUED Process of Rule of Law	Teacher: State the process of rule of law
3	RULE OF LAW CONTINUED Problems of rule of Law	Teacher: Identify and explain the problems of rule of law.
4	Revision	Revision
	Examination	Examination

ASỤSỤ IGBO

SS THREE TAM NKE MBỤ

IZUỤKA	ISIOKWU /NDỊNISIOKWU	IHE OMUME NA NGWA NKỤZI
1.	<p>ỤTỌASỤSỤ: EKWUMEKWU – Nkọwa ihe bụ nzikọrịtaozi keteknọlọji.</p> <p>OMENALA: Ikwugharị ihe bụ agụmagu ọdinala, nkenụdị na uru ya</p> <p>AGỤMAGU: Nkọwa nsọala/ibeene, ịmaatụ akụkọ na-akọ etu ụfọdụ nsọala siri bido.</p>	<p>IHE ỤMỤAKWỤKWỌ GA-EME:</p> <ol style="list-style-type: none"> 1. Ige ntị 2. Ịkọwa nzikọrịtaozi keteknọlọji 3. Ịkọwa agụmagu ọdinala na nkenụdị ya 4. Ikwu uru dị ịgụ agụmagu ọdinala 5. ịkwu ihe nsọala na ibeene pụtara <p>NGWA NKỤZỊ Akwụkwọ ọgụgụ, ụgbọ ojii, tepaurekọda, redio, chaatị, dgz.</p>
2.	<p>ỤTỌASỤSỤ: Uru na ọghom dị na nzikọrịta ozi keteknọlọji</p> <p>OMENALA: Ịgụ agụmagu ọdinala dị iche iche ndị a họtara</p> <p>AGỤMAGU: Ọrụ dị iche iche nsọala na-arụ n’obodo, ntaramaahụhụ dīrīrī ndị mebiri iwu nsolala , uru idebe nsọala obodo bara.</p>	<p>IHE ỤMỤAKWỤKWỌ GA-EME:</p> <ol style="list-style-type: none"> 1. Ikwu uru na ọghom dị na nzikọrịta ozi keteknọlọji 2. Ịgụ agụmagu ọdinala ndị a họtara 3. Ikwu ọrụ nsọala na-arụ n’obodo 4. Ịkposịta ntaramaahụhụ a na-enye ndị mebiri nsọala. 5. Ikwu uru idebe nsọala na-abara obodo . <p>NGWA NKỤZỊ Ụgbọ ojii, akwụkwọ ọgụgụ, chaati, foto/eserese, tepau rekọdụ, redio,dgz.</p>
3.	<p>ỤTỌASỤSỤ: Omumu chaatị ụdaume, ebe mkpọpụta dị iche iche.</p> <p>OMENALA: Mmugharị echichi ọdinala dika nkọwa njirimara onye chiri echichi ọdinala dk. Eze, nze, ọzọ na lọlọ.</p> <p>AGỤMAGU: Inyocha na itule ndina na njirimara agụmagu ọdinala.</p>	<p>IHE ỤMỤAKWỤKWỌ GA-EME:</p> <ol style="list-style-type: none"> 1. Ige ntị 2. Ịrụgosi n’eserese ebe mkpọpụta dị iche iche 3. Ịkwuputa ihe ụfọdụ e ji ama onye chiri echiche 4. Ịtule ndina na njirimara agụmagu ọdinala <p>NGWA NKỤZỊ Chaati, akwụkwọ ọgụgụ, ugbo ojii, redio, tepu rekọda,dgz.</p>

<p>4.</p>	<p>ỤTỌASỤSỤ: Ọmụmụ Chaati Mgbochiume – Ebe Mkpọpụta OMENALA: Uru na ọghọm dijiri onye e chiri echichi. AGUMAGỤ: Nnyocha akwụkwọ agumagụ ọdinala ndị a họtara.</p>	<p>IHE ỤMỤAKWỤKWỌ GA-EME: 1. Ige ntị 2. Iru gosị ebe mkpọpụta ụda dị iche iche 3. Ikwu uru na ọghọmdijiri onye e chiri echichi 4. Nnyocha na itule ndina akwụkwọ agumagụ ọdinala ha gụrụ NGWA NKỤZI Akwụkwọ ọgụgụ, akwụkwọ agumagụ ọdinala hooro, ụgbọ ojii, tiivi, redio, tepurekoda, dgz.</p>
<p>5.</p>	<p>ỤTỌASỤSỤ: Mmughari chaati mgbochiume - Udi mkpọpụta OMENALA: Ikowaputa mgbanwe ndi batara n'echichi na echimechi ufodu AGUMAGỤ: Mmughari ihe bu agumagụ ederede, nkenudi na uru ikowaputa ya.</p>	<p>IHE ỤMỤAKWỤKWỌ GA-EME 1. Ige ntị 2. Iza ajuju gbasara udi mkpọpụta mkpuruuda ufodugasi 3. Ikwu mgbanwe ndi batara nechichi ufodu. 3. Ikwu ihe bu agumagụ ederede 4. Ikewaputa agumagụ ederede na nkenudi ya 5. Ikwu uru di n'agumagụ ederede. NGWA NKỤZI Akwụkwọ ọgụgụ, ụgbọ ojii, foto/eserese</p>
<p>6.</p>	<p>ỤTỌASỤSỤ: Nkwa na omumu nkeji okwu, nkewasi mkpuruokwu na nkeji na nkeji tinyere mkpuruokwu nwere myiriudaume OMENALA: Mmughari ihe gbasara alumdina nwunye. AGUMAGỤ: Nchikota na ntuleghari iduuzi niile a guru</p>	<p>IHE ỤMỤAKWỤKWỌ GA-EME 1. Ikwa ihe bu nkejiokwu 2. Ikewa mkpuruokwu n nkeji na nkeji 3. Ikwa ihe bu alimdi na nwunye 5. Iza ajuju gbasara alimdi na nwunye 6. Ituleghari iduuzi ha guru NGWA NKỤZI Akwụkwọ ọgụgụ klasi, akwụkwọ iduuzi, ụgbọ ojii, kaadi mgbubam, dgz.</p>
<p>7.</p>	<p>ỤTỌASỤSỤ: Mmughari ahirjokwu mfe na nkenudi OMENALA: Omumu ihe gbasara inu iyi maabu idu isi AGUMAGỤ: Ntuleghari na nchikota akwukwo abu ederede a guru</p>	<p>IHE ỤMỤAKWỤKWỌ GA-EME 1. Imebe ahiri mfe 2. Ikewa ahirimfe na nkenudi ya 3. Ikwa ihe inu iyi /idusi putara 4. Igu abu ederede na iza ajuju sitre na ya NGWA NKỤZI</p>

		<p>Akwkwọ ọgụgụ na akwkwọ abụ, ụgbọ ojii, kaadi mgbubam, dgz.</p> <p>IHE ỤMỤAKWỤKWỌ GA-EME</p> <ol style="list-style-type: none"> 1. Imebe ụdiri ahiriokwu di iche iche 2. Irugosi ụdiri ahiriokwugasi 3. Ikowa akpalaokwu 4. Igu na itule abụ ndi ha gurụ <p>NGWA NKỤZI</p> <p>Akwkwọ ọgụgụ klasi na akwkwọ abụ a hooro, ụgbọ ojii, kaadi mgbubam, dgz.</p> <p>IHE ỤMỤAKWỤKWỌ GA-EME</p> <ol style="list-style-type: none"> 1. Imebe ahirinha di iche iche 2. Ideputa nkenudi ahiriokwu gasi 3. Ikowa otu n'usoro abamaba ya 4. Ikwu uru na oghom di n'iba n'otu ogo 5. Itu na ikowa ilu Igbo di iche iche <p>NGWA NKỤZI</p> <p>Akwkwọ ọgụgụ klasi, ụgbọ ojii, kaadi mgbubam, dgz.</p> <p>IHE ỤMỤAKWỤKWỌ GA-EME</p> <ol style="list-style-type: none"> 1. Igu aghotaazaa na iza ajuju so ya 2. Ikparitauka gbasara onodu otu ogo n'oge ugbu a. 3. Itu ilu na ikowa ilu ndi metutara alimdi na nwunye 4. Iju na iza ajujuju <p>NGWA NKỤZI</p> <p>Akwkwọ ọgụgụ klasi, ụgbọ ojii, tepu rekoda, redio, dgz.</p>
8.	<p>ỤTỌASỤSỤ: Mmughari ahiriokwu ukwu na nkenudi</p> <p>OMENALA: Mmughari akpalaokwu na usoro nkowa ya</p> <p>AGUMAGU: Ntuleghari na nchikota akwkwọ abụ ederede a gurụ</p>	
9.	<p>ỤTỌASỤSỤ: Mmughari ahiri nha na nkenudi ya</p> <p>OMENALA: Mmughari onodu otu ogo /uke/Ebiri, usoro e si aba ya, uru na oghom</p> <p>AGUMAGU: Mmughari itu ilu na nkowa ilu di iche iche.</p>	
10.	<p>ỤTỌASỤSỤ: Ogu na aghotaazaa – Ime mpu ule, mkpatara ya na oghom di n'ime mpu ule n'oge ule</p> <p>OMENALA: Onodu otu ogo n'oge ugbu a</p> <p>AGUMAGU: Omumu ilu gbasara alimdi na nwunye dika :Ogori luo di abuo, o mara nke ka ya mma.</p>	
11.	<p>MMUGHARI IHE A KUZIRI NA UIE</p>	
12.	<p>ULE</p>	
13.	<p>ULE/MMECHI</p>	

ASỤSỤ IGBO
SS THREE TAM NKE ABỤỌ

IZUỤKA	ISIOKWU / NDỊNISIOKWU	IHE OMUME NA NGWA NKỤZỊ
1.	<p>ỤTỌASỤSỤ: Ọgụgụ na aghọtaazaa “Agụmakwụkwọ dika ihe na-eme ụzọ agamnihu”, uru na ọghọm dị n’agụghị akwụkwọ.</p> <p>OMENALA: Aha na ụdị chi dị iche iche dk. Amadiọha, Ibiniukpabị, dgz. Ndị Igbo nwere. Ọrụ chi ndị a na-arụrụ ndị Igbo</p> <p>AGỤMAGỤ: Mmugharị na ileba anya n’akwụkwọ e weputara n’ule</p>	<p>IHE ỤMỤAKWỤWỌ GA-EME:</p> <ol style="list-style-type: none"> 1. Igu aghọtaazaa na iza ajụjụ na-esote ya 2. Ikpọsịta aha na ụdị chi dị iche iche 3. Ikwu ọrụ ụmụ chi ndị a na-arụgasi 4. Ijụ na iza ajụjụ sitere n’akwụkwọ ule, akwụkwọ ule <p>NGWA NKỤZỊ Akwụkwọ ọgụgụ, ụgbọ ojii, kaadị mgbubam, dgz.</p>
2.	<p>ỤTỌASỤSỤ: Mmugharị tensi na aspekti na nkenudị ha</p> <p>OMENALA: Nkọwa echichi ndi Igbo gbasara ndụ na-esote ọnwụ dika ọgbanye na ọnwụ</p> <p>AGỤMAGỤ: Mmugharị na ileba anya n’akwụkwọ agụmagụ e weputara n’ule.</p>	<p>IHE ỤMỤAKWỤKWỌ GA-EME:</p> <ol style="list-style-type: none"> 1. Ikwu nkenudị tensi na aspekti 2. Imebe ahiriokwu ndi na-eziputa tensi na aspekti 2. Ikwaputa echiche ndi Igbo gbasara ọgbanye na ọnwụ 3. Ikwu uche ha gbasara ndụ na-esote ọnwụ 4. Ijụ na iza ajụjụ sitere n’akwụkwọ ule <p>NGWA NKỤZỊ Ụgbọ ojii, akwụkwọ ọgụgụ, chaati, kaadị mgbubam, foto/eserese, dgz.</p>
3.	<p>ỤTỌASỤSỤ: Mmugharị nka edemede na ụdị edemede dijiche iche ọkachaị leta anamachoihe</p> <p>OMENALA: Nkọwa echiche ndi Igbo gbasara ndụ na-esote ọnwụ “ilọ ụwa”.</p> <p>AGỤMAGỤ: Mmugharị na ileba anya n’akwụkwọ ụlọ e weputara.</p>	<p>IHE ỤMỤAKWỤKWỌ GA-EME:</p> <ol style="list-style-type: none"> 1. Ikwu ụdị edemede dijiche iche 2. Ikwọwa nkwenye ndi Igbo gbasara ilọ ụwa 3. Ileba anya n’akwụkwọ ụlọ e weputara 4. Ide ihe edemede leta anamachoihe <p>NGWA NKỤZỊ akwụkwọ ọgụgụ, ugbo ojii, tepu rekoda, redio, dgz.</p>

SENIOR SECONDARY SCIENCES

BIOLOGY

SS 3 FIRST TERM

WEEK	TOPIC	CONTENT	ACTIVITIES
1	REPRODUCTIVE SYSTEM AND REPRODUCTION IN HUMAN	i). Parts and functions of reproductive part of human ii). Structure of male sperm cell and female egg cell	i). Show charts of male and female reproductive system ii). Show charts of male sperm and female gamete iii). Students should identify and observe them.
2	REPRODUCTIVE SYSTEM IN HUMANS CENTNUES	(i) fertilization – fusion of gametes implantation (ii) development of embrayo – selective exchange between mother and child – removal of excretory products feotus.	i). Show photograph or chart of a developing feotus ii). Show the specimen i.e. Developing feotus in the laboratory.
3	DEVELOPMENT OF SEEDS AND FRUITS	(i) Process of development of Zygote in flowering plants – pistil, stem, fertilization ii). Germination of seeds iii). Types of germination iv). Conditions necessary for germination v). Fruits – structure of fruits – types of fruits and seed – agents of dispersal –differences between fruits and seeds	i). Provides students with dissected flowers to show the parts involved in fertilization ii). Guides students to soak seeds in water and plants some in milk tin to observe types of germination and conditions necessary for germination iii). Show different types of fruits and seeds and let students know their differences
4	REPRODUCTIVE BEHAVIORS	Courtship behaviors in animals pairing – territoriality, display of colours and body parts, seasonal migration – muptical flight e.g. termites	(i) shows students pictures of colorful birds and preserved specimen of Agama lizard ii). Take students to where lizards, cocks, turkey bask to note the courtship behaviors

5	BIOLOGY OF HEREDITY	<ul style="list-style-type: none"> i). Definition of heredity ii). Transmission and expression of characters in organisms iii). Variation – Definition iv). Chromosomes – Location and structures v). Process of transmission of heredity tracts from parents to offspring vi). Probability in genetics 	<ul style="list-style-type: none"> i). Discusses with students Mandels experiments with red and white flowered peas ii). Show students a chart depicting products of cross fertilization and self fertilization.
6	BIOLOGY OF HEREDITY CONTINUES	<ul style="list-style-type: none"> i). Mendels work in genetics ii). Application of the principles of heredity <ul style="list-style-type: none"> - In agriculture for seed improvement, and disease resistance. - In medicine e.g. sickle cell management. - compatibility of blood groups. iii). Explain the terms - Gross fertilization self fertilization – out breeding and in breeding using crosses. 	<ul style="list-style-type: none"> i). Carry out mendelian cross to explain offspring's genotypes ii). Students carry out mendelian cross to explain offspring's genotypes.
7	VARIATION IN POPULATION	<ul style="list-style-type: none"> i). Morphological variation (physical appearance of individuals) <ul style="list-style-type: none"> a). size, height, weight, b) colour (skin hair, eyes, coat of animals) c). finger print ii). Physiological variation <ul style="list-style-type: none"> a). Behaviour b). Ability to roll tongue c). Ability to taste phenyl thiocarba mide (PTC) iii). Application of variations <ul style="list-style-type: none"> (a) Crime detection b). Blood transfusion c). Determination of paternity. 	<ul style="list-style-type: none"> i). Teacher measures the height of students of the same age group e.g. 13-15 and 16-17 year ii). Teacher ask students to roll their tongues iii). Ask students if they know their blood group iv). Demonstrates the making of finger prints and identify the different patterns made e.g. Whorl, Arch, loop.

8	EVOLUTION	<p>i). Progressive change in structures and anatomy of organism using example or features from water to land</p> <p>ii). Structural adaptation:- Adaptive coloration and their functions e.g. Camouflage in leopards, green snake, in green grass bright colour of flowers to attract pollination</p> <p>iii). Structural adaptation for obtaining food e.g. Proboscis for sucking cell sap insects mimicry colours for security mates for regulating temperature etc.</p> <p>iv). Different castes of termites and their roles.</p>	<p>i). Teacher show life specimens of tadpoles in the external gill stage, fish with internal gills and toad with lungs</p> <p>ii). Provides male Agama Lizard to show colours</p> <p>iii). Discusses with students the reality of the law of use and discuses by referring to boxers or athletes</p> <p>iv). Show termites soldiers king, queen and reproductive males and females. Teacher show a broken pieces of castes of termites to the students</p>
9	THEORY OF EVOLUTION	<p>i). Theories of evolution (Darwins)</p> <p>ii). Larmaks evolutionary law</p> <p>iii). Modern evolution theory</p> <p>iv). Evidence of evolution – fossil record, - Embryology</p> <p>v). forces responsible for evolution, - mutation, gene flow and genetic drift</p>	<p>i). Discusses the possibility of transfer of such acquired characteristics e.g. Can a footballers child have big and developed leg even without training?</p>
10	PRACTICAL ON FOOD TEST	<p>i). Test for presence of starch</p> <p>ii). Test for presence of protein</p> <p>iii). Test for the presence of simple reducing sugar.</p> <p>iv). Test for a complex sugar.</p>	<p>i). Teacher set up the experiment in the laboratory.</p> <p>ii). Allow the students to participate.</p> <p>iii). Students write and draw the inference.</p>
11	PRACTICAL OF FLOWERS AND FRUITS	<p>i). Arrangement of floral parts, placentation, types of ovary conditions necessary for photosynthesis e.g. Pride of Barbados, flame of the forest, Hibiscus</p>	<p>i). Show the life flower</p> <p>ii). Show the floral part of the flower</p>
12	Revision		
13	Examination		

BIOLOGY
SS 3 SECOND TERM

WEEK	TOPIC	CONTENT	ACTIVITIES
1	REVISION	i). Revision of all relevant topic in national examination ii). Revision of past WAEC NECO and UME Questions	Teachers using the past questions booklets and other relevant text books to revise with the students.
2	REVISION ON PRACTICAL'S	Revision of past practical questions alternative to practical	Teacher using some relevant practical books, past questions and other relevant specimens.
3	Revision	Revision	Revision
4	Examinations	Examinations	Examinations

CHEMISTRY
SS 3 FIRST TERM

WEEK	TOPIC / CONTENT	ACTIVITIES
1	METALS AND THEIR COMPOUNDS 1. Metals: - chemical characteristics - relative abundance 2. Compounds of metals 3. Principles of extraction of metals: - electrolysis - reduction of oxides - reduction of chlorides - reduction of sulphates 4. The alkali metal (General properties) 5. Sodium: - extraction of sodium - properties of sodium - uses of sodium.	Teacher: i. Explains the general characteristics of metals. ii. Lead the students to identify parts of the periodic table containing metals. iii. Show on charts the relative abundance of metals in nature with emphasis on the occurrence of certain metals as minerals in Nigeria (i.e. Tin, iron etc). iv. Discuss using diagrams the principles of extraction of metals with tin-mining and iron and steel as examples (emphasis on Nigeria). Instructional Resources: i. samples of metals and their compounds. ii. periodic table of elements. iii. charts of mineral ore distribution in Nigeria.
2	METALS AND THEIR COMPOUNDS	Teacher: v. list and explain the general properties of alkali and alkali earth metals.

	<p>6. The alkali earth metals (general properties)</p> <p>7. Calcium:</p> <ul style="list-style-type: none"> - extraction of calcium - properties of calcium - compounds of calcium - uses of calcium <p>8. Aluminium:</p> <ul style="list-style-type: none"> - extraction of aluminium - uses of aluminium 	<p>vi. Discuss the extraction, properties and uses of sodium, calcium, aluminium and tin.</p> <p>Instructional Resources: list of mining and metal-related industries in Nigeria.</p>
3	<p>METALS AND THEIR COMPOUNDS</p> <p>9. Tin:</p> <ul style="list-style-type: none"> - extraction of tin - uses of tin <p>10. Transition metal</p> <ul style="list-style-type: none"> - properties of transition metals <p>(the first transition series only)</p>	<p>Teacher:</p> <p>vii. Explains the general properties of transition metals: list the 1st transition series and explain their electronic configuration. – discuss the oxidation states and complex formation for the 1st transition series.</p>
4.	<p>METALS AND THEIR COMPOUNDS</p> <p>11. Copper:</p> <ul style="list-style-type: none"> - extraction of copper - uses of copper 	<p>Teacher:</p> <p>viii. Discuss the extraction and uses of copper and iron.</p> <p>ix. explain the rusting of iron and methods of its prevention.</p> <p>x. Discuss the general reaction of metals.</p> <p>xi. Show samples of various metal ores to the students.</p>
5.	<p>IRON</p> <ol style="list-style-type: none"> 1. Extraction 2. Uses 3. Rusting of iron and methods of prevention 	<p>Teacher: perform experiment to show:</p> <ol style="list-style-type: none"> i. brown ring test ii. rusting of iron iii. corrosion of iron nails iv. Take students to visit the iron and steel industry at Ajaokuta, Nigeria if possible. <p>Instructional Resources:</p> <ol style="list-style-type: none"> i. iron ii. water iii. paint or oil, grease iv. Rusted nails, keys, spoons, etc.
6	<p>FATS & OIL</p> <ol style="list-style-type: none"> 1. Sources 	<p>Teacher:</p> <ol style="list-style-type: none"> i. guides students to identify the sources of fats and oils

	<p>2. Physical and Chemical properties</p> <p>3. Reactions of fats and oil, (saponification)</p> <p>4. Uses</p>	<p>ii. perform simple demonstrations to show the properties of fats and oils.</p> <p>iii. takes students on visit to a local vegetable industry.</p> <p>Instructional Resources:</p> <p>i. samples of fats and oils</p> <p>ii. paper.</p>
7	<p>SOAP AND DETERGENTS</p> <p>1. Soap:</p> <ul style="list-style-type: none"> - preparation - structure <p>2. Action of soap as an emulsifying agent.</p>	<p>Teacher:</p> <p>i. demonstrates the preparation of soap</p> <p>ii. explain the cleansing action of soap.</p> <p>Instructional Resources:</p> <ul style="list-style-type: none"> - Vegetable oil - Caustic soda or potash - Wood ash - Containers/reaction vessels.
8	<p>SOAP AND DETERGENTS</p> <p>3. Detergents:</p> <ul style="list-style-type: none"> - Preparation - Mode of action of detergents <p>4. Differences between soap and detergents.</p>	<p>Teacher:</p> <p>i. explains the cleansing action of detergents</p> <p>ii. takes students on a visit to a local soap factory and guide them to identify the raw materials and process for making soap and detergents.</p> <p>iii. assign students in groups to make soaps from locally available materials.</p> <p>Instructional Resources:</p> <ul style="list-style-type: none"> - Water - Thermometer - NaCl
9	<p>GIANT MOLECULES</p> <p>Sugars:</p> <p>1. sources</p> <p>2. classification as:</p> <p>a. monosaccharide</p> <ul style="list-style-type: none"> - disaccharides - polysaccharides. <p>b. as reducing and non-reducing sugars.</p>	<p>Teacher:</p> <p>i. guides students to:</p> <ul style="list-style-type: none"> - identify sources of sugar and starch - classify sugars as mono-, di-and polysaccharides. - differentiate between reducing and non-reducing sugars. - state the uses of sugar and starch. <p>Instructional Resources:</p> <p>i. samples of glucose</p> <p>ii. starch</p> <p>iii. sugarcane</p> <p>iv. dilute acids</p> <p>v. Source of heat</p>
10	GIANT MOLECULES	Teacher:

	3. Hydrolysis of sucrose and starch.	<ul style="list-style-type: none"> i. performs simple experiments to demonstrate the hydrolysis of starch and sucrose to produce glucose. ii. takes students on a visit to a local sugar factory. iii. guides students to test for sugars and starch. <p>Instructional Resources:</p> <ul style="list-style-type: none"> i. containers e.g. beaker ii. iodine iii. Fehlings solution iv. Benedict's solution v. Concentrated H₂SO₄
11	<p>GIANT MOLECULES</p> <p>4. Test for starch and sugars</p> <p>5. Uses of starch and glucose:</p> <ul style="list-style-type: none"> - proteins - sources - structure and properties - test for protein - uses of proteins 	<p>Teacher:</p> <ul style="list-style-type: none"> i. Guides students to: <ul style="list-style-type: none"> - list sources of protein - give examples of proteins - state the uses of proteins ii. Explains the structure of proteins to students iii. Performs simple experiments to: <ul style="list-style-type: none"> - Illustrate the chemical and physical properties of proteins - Test for proteins. <p>Instructional Resources:</p> <ol style="list-style-type: none"> 1. Samples of food containing protein 2. Test reagents: <ul style="list-style-type: none"> - million's reagent - HNO₃ 3. Biuret 4. Test – tubes 5. Source of heat etc.
12	Revision	Revision
13	Examinations	Examinations
14	Examinations	Examinations

CHEMISTRY
SS 3 SECOND TERM

WEEK	TOPIC / CONTENT	ACTIVITIES
1	<p>ETHICAL, LEGAL AND SOCIAL ISSUES</p> <ol style="list-style-type: none"> 1. Chemical wastes 2. Industrial pollutant 3. Roles of governments in preventing chemical degradation: 	<p>Teacher:</p> <ul style="list-style-type: none"> i. Name some chemical industries in Nigeria. ii. Teach students about the adverse effects of chemical waste on the environment. iii. Sensitize the students about the hazards of working in chemical industries.

	<ul style="list-style-type: none"> - legislation - setting of minimum standard - Enforcement of stand. 	<ul style="list-style-type: none"> iv. Take students on a visit to chemical industry. v. Guide the students to discuss: <ul style="list-style-type: none"> - ways of preventing chemical degradation - The role of government in preventing chemical degradation.
2	<p>QUANTITATIVE AND QUALITATIVE ANALYSIS</p> <ol style="list-style-type: none"> 1. Acid/Base titrations (neutralization) continued. 2. Redox titrations involving KMnO_4, Fe^{2+}, C_2O_4, I_2, KI, $\text{S}_2\text{O}_3^{2-}$ 3. Test for oxidants and reductants. 	<p>Teacher:</p> <ol style="list-style-type: none"> i. Carry out titration to determine: <ul style="list-style-type: none"> - percentage purity - heat of neutralization - water of crystallization etc. ii. Guide students to test for oxidants in redox reactions. <p>Instructional Resources:</p> <ol style="list-style-type: none"> i. Indicator extract from flowers ii. Bomb calorimeter iii. Relevant acids and bases.
3	<p>QUANTITATIVE AND QUALITATIVE ANALYSIS</p> <ol style="list-style-type: none"> 4. Identification of ions (Fe^{2+}, NH_4^+, Fe^{3+}, Cu^{2+}, Pb^{2+}, etc); chlorides, nitrates, sulphates, sulphide, bicarbonates, carbonates, sulphate etc. 5. Test for hydrogen NH_3, HCl, NO_3, Oxygen, CO_2, Cl (bleaching action). 	<p>Teacher:</p> <ol style="list-style-type: none"> i. Guides students to identify ions (cations and anions) ii. Guides students to test for simple sugars, fats and oils, proteins, starch, etc. iii. Identification of fats & oils, simple sugar, proteins, starch. <p>Instructional Resources</p> <ol style="list-style-type: none"> i. Relevant salts ii. Relevant acid and bases <ol style="list-style-type: none"> iii. Starch, fats and oils, protein etc. iv.
4	Revision of SS 1 work	
5	Revision of SS 1 work	
6	Revision of SS 1 work	
7	Revision of SS 1 work	
8	Revision of SS 2 work	
9	Revision of SS 2 work	
10	Revision of SS 2 work	
11	Revision of SS 2 work	
12	Examinations	
13	Examinations	

PHYSICS

SS 3 FIRST TERM

WEEK	TOPIC/ CONTENT	ACTIVITIES
1	SIMPLE A.C CIRCUITS -Nomenclature in A.C circuits -Peak and r.m.s values -Resistance in a.c circuit -Capacitance in a.c circuit -Inductance in a.c circuit	The teacher uses vectors to show the directions of resistance, inductance and capacitance in an a.c circuit
2	SIMPLE A.C CIRCUITS -Reactance and impedance -Series circuit containing resistance, inductance and capacitance -Power in a.c circuit.	The teacher leads the students on how to calculate current in a simple a.c circuit
3	MODELS OF THE ATOM -Concept of the atom -The various models of the atom: Thomson, Rutherford, Bohr, Electron cloud models -Limitations of physical models	The teacher leads discussion on the scattering experiment and its analogue using charts etc.
4	NUCLEUS -Radioactivity-natural and artificial: i) Isotopes ii) Radioactive elements iii) Radioactive emission iv) Half-Life and decay constant	The teacher leads discussion on random event and probability of decaying atoms
5	NUCLEUS -Transformation of elements -Nuclear reaction: i) Fission ii) Fusion iii) Nuclear energy -Applications of radioactivity -Nigeria nuclear energy programme.	-The teacher leads discussion on nuclear fission and fusion -The teacher leads discussion on the applications of radioactivity in medicine, agriculture, science, industry, etc
6	ENERGY QUANTIZATION -Energy level in atoms i) Ground state ii) Excited state	

	iii) Emission of light energy on return to ground state(Atomic spectra)	
7	ENERGY QUANTIZATION -Photo-electric effect -Einstein photo-electric equation and its explanation -X-ray: i) Production ii) Characteristics and properties iii) Uses	Excursion to x-ray unit in any hospital or centre for the students to observe the operation of the X-ray equipment
8	DUALITY OF MATTER -Wave nature of matter: i) Electron diffraction -Particle nature of matter: i) Photoelectric effect ii) Compton effect -The uncertainty principle	The teacher leads discussion using simple illustrations, theories of nature of light particle theory and wave theory
9	PHYSICS IN TECHNOLOGY -Constructing a battery -Electroplating	The teacher leads the students to construct a battery of at least 3 cells and use it to light a bulb
10	PHYSICS IN THE REAL WORLD(or Technology) -Application of electromagnetic field i) Construction of a galvanometer, an electric motor and generators	The teacher guides the student s on the construction of any of the following -A galvanometer -An electric motor -D.C and A.C generator.
11	PHYSICS IN THE REAL WORLD(PHYSICS IN TECHNOLOGY) -Construction of a model transmission system using a transformer	The teacher to guides the students to construct a model transmission system using a transformer
12	PHYSICS IN TECHNOLOGY -Need for use of machines in doing work: i) Easier ii) Quicker iii) More conveniently -Instances of the use of machines i) At home	-Teacher leads discussion on the need for the use of machines

	ii) In offices iii) In industry iv) In agriculture v) In transportation, etc -Repairs and maintenance of machines i) Need for repairs of machines ii) Need for regular maintenance of machines iii) Maintenance schedule of machines.	-The teacher leads discussion on various instances for the uses of machines
13	Revision	Revision
14	Examination	Examination

PHYSICS

SS 3 SECOND TERM

WEEK	TOPIC/ CONTENT	ACTIVITIES
1	ENERGY AND SOCIETY -Dams and Energy production i) Location of dams for producing electricity in Nigeria ii) Principle of production of electricity from a dam	Teacher lead discussion on how electricity is produced from a dam
2	ROCKETS AND SATELLITES -Component parts of rockets and satellites -Functions of rockets and satellites -Uses of rockets and satellites	The teacher lead the discussion on the functions of rockets and satellite, using charts
3	NIGERIAN SATELLITE -Nigeria Sat-1 i) Features of Niger Sat 1 ii) Its operation and uses -NICOM-SAT 1 i) Features of NICOM-SAT 1 ii) Its operation and uses	The teacher to provide pictures and charts and watch film on Niger-SAT 1 to facilitate learning
4	Revision and Examination	Revision and Examination

ELECTIVES

FURTHER MATHS SS 3 FIRST TERM

WEEK	TOPIC / CONTENT	ACTIVITIES
1	PARTIAL FRACTIONS i. Basic definition ii. Proper rational function with denominators as linear factors (distinct and repeated) and others.	Teacher: leads students to resolve rational functions into partial fraction. Students: practice and solve different types of partial fractions. Instructional Resources: charts of problems involving partial fractions etc.
2	INTEGRATION i. Understand integration as reverse process of differentiation. ii. Integration of algebraic polynomial iii. Integration of logarithmic functions.	Teacher: guides students to understand integration as the reverse process of differentiation. Students: identify integration as the reverse process of differentiation. Instructional Resources: charts, showing integration as the reverse process of differentiation etc.
3	INTEGRATION i. Definite integrals and application to kinetics ii. Application of definite integral to v-t and s-t graph.	Teacher: guide students to integration algebraic polynomials and logarithmic function. Students: solve problems on integrate of algebraic polynomials and logarithmic function. Instructional Resource: charts of problems on integration of polynomial etc.
4	INTEGRATION i. Area under the curve ii. Trapezoidal rule iii. Volume of solids of revolution	Teacher: guide students to solve problems on area bounded by two curves. Students: Solve problems on integration including areas bounded by two curves Instructional Resources: charts showing integration, including area bounded by curves etc.
5	MATRICES AND DETERMINANTS i. Matrices as linear transformations ii. Determinants	Teacher: leads students to identify concept of matrices as linear transformation Students: Work out examples on matrices Instructional Resources: charts showing different types of matrices etc.

6	MATRICES AND DETERMINANTS i. Solution of 2 simultaneous equation ii. solution of 3 simultaneous equation	Teacher: leads students to solve systems of 2 and 3 simultaneous equations Students: engage in solving systems of 2 and 3 simultaneous equations. Instructional Resources: charts showing 2 and 3 simultaneous equation etc.
7	CONIC SECTION i. Equation of parabola, ellipse, hyperbola in rectangular Cartesian coordinates. ii. Parametric equations	Teacher: introduces the equation of parabola, ellipse and hyperbola. Students: use the equation to solve practical problems Instructional Resources: the solid shapes of parabolic, elliptic and hyperbolic types etc.
8	CORRELATION i. Concept of correlation as measure of relationships ii. Rank correlation iii. Scatter diagrams iv. Product moment v. Tied rank	Teacher: guides the students to identify the concept of correlation from scatter diagram. Students: solve practical problem on correlation Instructional Resources: Real life data i.e. scores, ages etc.
9	PROBABILITY DISTRIBUTION AND APPROXIMATIONS i. Binomial ii. Poisson iii. Binomial approximation by poisson iv. Normal distribution v. Normal approximation by binomial distribution.	Teacher: Exposes students to the shapes and properties of the normal, poisson and Binomial distributions. Students: solve simple problems and apply probability distribution for approximation.
10	VARIANCE OF THE DIFFERENT PROBABILITY DISTRIBUTIONS a. Mean b. Variance c. Coefficient of variance	Teacher: defines the terms under consideration Students: write down mean, variance and coefficient of variance. Instructional Resources: chart showing variance of probability distribution.
11	INEQUALITIES i. Quadratic inequalities ii. Inequalities in two variables	Teacher: guides students to solve quadratic inequalities. Students: solve problems on quadratic inequalities. Instructional Resources: chart showing quadratic inequalities and inequalities in two variables.

12	Revision	Revision
13	Examinations	Examinations
14	Examinations	Examinations

**FURTHER MATHS
SS 3 SECOND TERM**

WEEK	TOPIC / CONTENT	ACTIVITIES
1	<p>STATICS</p> <ul style="list-style-type: none"> i. Forces in equilibrium ii. Resultant of parallel forces (in the same direction) and (in opposite directions) acting on a rigid body iii. Moment of a force (2 and 3 forces) acting as a point. iv. Polygon of forces v. Resolution of forces of friction. 	<p>Teacher: defines forces and their effect on a body leads the students to resolve forces. Students: appreciate the concept of forces and their action on a rigid body. Find the moment of forces. Instructional Resources: chart showing various component of forces.</p>
2	<p>MODELLING</p> <ul style="list-style-type: none"> i. Introduction to modeling ii. Dependent and independent variable in mathematical modeling. iii. Construction of models iv. Methodology of modeling v. Application to physical, biological, social and behavioural services. 	<p>Teacher: explains and gives practical examples of model. Students: construct some simple mathematical models. Instructional Resources: chart showing various types of model, i.e. symbolic, conic, mental models etc.</p>
3	<p>GAMES THEORY</p> <ul style="list-style-type: none"> i. Introduction to games theory ii. Description of types of games iii. Solution of two person, zero sum games using pure and mixed strategies iv. Matrix games. 	<p>Teacher: Represents games in matrix form. Students: describes the various types of games. Instructional Resources: chart of various types of games.</p>
4	General Revision (SS 1 work)	
5	Revision (SS 2 work)	
6	General Revision (SS 3)	
7	Solving past questions I	
8	Solving past questions II	

9	Solving past questions III	
10	Examinations	
11	Examinations	

**AGRICULTURAL SCIENCE
SS 3 FIRST TERM**

WEEK	TOPIC / CONTENT	ACTIVITIES
1	Crop Improvement a. Meaning and aims of crop improvement b. Mendelian Laws	Growing of local and improved (exotic) varieties of crops in the school farm.
2	Crop Improvement continues c. Processes of crop improvement i. Introduction ii. Selection iii. Breeding	Display of pictures of improved varieties of crops and their yield pattern (performance).
3	Principles of Animal Health Management a. Susceptibility and resistance to diseases b. Predisposing factors: i. Health status of the animals ii. Environment iii. Nutrition.	Collection of farm animals and inspection of animal body for lice, ticks etc.
4	Principles of Animal Health Management Continues c. Symptoms, effects and mode of transmission e.g. i. Viral-foot and mouth diseases, rinder pest, new castle disease ii. Bacteria-anthrax, brucellosis, tuberculosis iii. Fungal-scabbies, ringworm iv. Protozoa-trypanosomiasis, coceidiosis.	Display pictures of disease infested animals and visit a veterinary
5	Principles of Animal Health Management Continues d. Ecto-Endo parasites, life cycles and mode of transmission.	Display specimens of common ecto-endo parasites e.g. fleas, ticks, lice, tapeworm, roundworms.

	<p>e. Methods of:</p> <p>i. Preventing – quarantine, inoculation, vaccination, hygiene, breeding.</p> <p>ii. Control – treatment by a veterinary doctor, destruction.</p>	Demonstrate spraying or dipping.
6	<p>Fish Farming and Fishery Regulations</p> <p>a. Establishment and maintenance of fish pond.</p>	An aquarium can be used to demonstrate this or a fish pond.
7	<p>Fishery Regulations</p> <p>b. Fishery regulations.</p>	Excursion to a fish pond
8	<p>Animal Improvement</p> <p>a. Aims and Meaning of animal improvement</p> <p>b. Methods of animal improvement;</p> <p>i. Introduction</p> <p>ii. Selection</p>	Identify the different types of breeds and their similarities and performance.
9	<p>Animal Improvement continues</p> <p>iii. Breeding-inbreeding, line-breeding, cross breeding.</p>	Display pictures on outcomes of cross breeding animals.
10	<p>Irrigation and Drainage</p> <p>a. Importance of irrigation and drainage</p> <p>b. Irrigation system; channel, sprinklers, underground etc.</p> <p>c. Drainage system- channel, underground etc.</p>	<p>Display pictures of Dams, Irrigated fields.</p> <p>Use waste water to demonstrate channel drainages.</p>
11	<p>Irrigation and Drainage continues</p> <p>d. Merit and Demerit of each; irrigation and drainage systems.</p> <p>e. Problems associated with irrigation:</p> <ul style="list-style-type: none"> - High cost of maintenance - Water availability - Build up of pest and diseases 	Display pictures of drainage systems e.g. channels.
12	Revision	Revision
13	Examination	Examination

**AGRICULTURAL SCIENCE
SS 3 SECOND TERM**

WEEK	TOPIC / CONTENT	ACTIVITIES
1	Marketing of Agricultural Produce a. Meaning and importance of marketing b. Marketing agents: i. Marketing Boards.	Display marketing board produce and their structural organization
2	Marketing of Agricultural Produce continues ii. Cooperative societies iii. Middlemen – Wholesalers, Retailers iv. Producers etc.	Excursion to a co-operative society organization.
3	Agricultural Extension a. Agricultural extension as a teaching and learning process. b. Agricultural extension programmes e.g. ADP c. Diffusion of new ideas and techniques (innovations) to farmers.	Display of teaching aids used by Extension workers (agents)
4	Revision	Revision
5	Examination	Examination

COMPUTER STUDIES

SS 3 FIRST TERM

WEEK	TOPIC/CONTENT	ACTIVITIES
1	NETWORK -Definition of networking -Types of networking -Network topology -Network devices -Benefits of networking	-Teacher leads students to define and list types of networking e.g. Ethernet, Token ring, Arcnet. -Displays each network topology in class -Drawing of flow diagram for each network topology in the class -List network devices e.g. (Hubs, Modems, Switches, Router) -State benefits of networking e.g. Sharing resources, easy communication, etc.
2	INTRODUCTION FOR WORLD WIDE WEB	- Teacher leads students to define and gives full meaning of www.

	<ul style="list-style-type: none"> -Definitions and full meaning of www -Brief history of www -Introduction to www -Basic terminologies protocols 	<ul style="list-style-type: none"> -Brief history of www in the class -Basic terminologies: www, website, webpage, home page. -Lists the protocols with full meaning, e.g. HTTP, html -Hypertext transfer protocols -Hypertext markup language
3	<p>USES/BENEFIT OF WWW</p> <ul style="list-style-type: none"> -Navigating through websites -Software for web development, cables and connectors -Network cables and connectors 	<ul style="list-style-type: none"> - Teacher leads students to display and demonstrate a website on the internet(H.O.E) -Navigate through websites e.g. finegoving.org -Displaying network cables and connectors in the class, e.g. twisted pair, fiber option, telephone -Displays data cables -Power cables, data cables: Printer, USB, monitor etc. -List types of connectors: e.g. male, female.
4	<p>DATA BASE</p> <ul style="list-style-type: none"> -Definition -Examples of DBMS -Basic technologies -Forms of data base organization 	<ul style="list-style-type: none"> - Teacher leads students to define database and D.B packages -Mention examples of database packages: e.g. DbaseIII, DbaseIV, Foxbase. -Basic technologies: e.g. file, record, field, keys. -List different forms of data base organization -Displays an existing data base (file) in the system and features e.g. file designed as tables -Tables composed of rows and columns (field) contains specific types of information.
5	<p>DATABASE</p> <ul style="list-style-type: none"> -Creating database -Basic operations 	<ul style="list-style-type: none"> - Teacher guides students to create a database in the system(H.O.E) -Define the structure -Indicate field type -Enter and save data -Basic operations: <ul style="list-style-type: none"> i) Searching ii) Sorting iii) Modifying

		iv) Generating report
6	GRAPHICS(INTRODUCTION TO COREL DRAW) -Definition of graphics, examples of graphics -Features in CorelDraw e.g. environment: tools, color pallets.	- Teacher leads students to define graphics -Examples of graphics packages: i) Paint ii) Harvard graphics iii) Photoshop iv) Corel draw, etc -Features: Tools, and color pallets -Opening Corel; draw from programs(H.O.E)
7	GRAPHICS (COREL DRAW) -Simple design -Basic programming III (one-dimensional array) -DIM statement	-Application to make simple design e.g. i) Complimentary card, Business card ii) Birthday and congratulatory cards iii) School logo, Nigeria flag. -Guide students to close and exit Corel draw -Define one dimensional array (i.e. using DIM statement) -Operations on array: input of an array, output of an array, arithmetic array.
8	BASIC PROGRAMING III -Review of the for next statement, while end statement -Write BASIC program	- Teacher guides students to write simple program segments on each operation and program using FOR-NEXT and WHILE-END statement. -State data in vector of 10 integer with and without a FOR-NEXT statement -Calculate the average of one dimensional array with 100 numeric value.
9	BASIC PROGRAMMING III -Calculate the area of 10 different rectangles with and without while-end statements. - High Level Language (HLL) Definition of HLL Examples:- BASIC, FORTRAN, ALGOL etc.	- Teacher guides students to calculate area of 10 different rectangles with and without the WHILE-END statement -Output the sum of the first 100 integers -Output the value elements of a given array -Define high level language(HLLs) -BASIC, FORTRAN, ALGOL, C, PASCAL, P/I, PROLOG, COBOL, as given examples

		-BASIC, FORTRAN, ALGOL(scientific)
10	HIGH LEVEL LANGUAGE -Classification of (HLLs) -Features of BASIC, C, PASCAL, COBOL. -Advantages of HLL over ML, LLL	- Teacher leads students to classify HLLs based on suitable application of C, PASCAL, P/I (General Purpose), LISP, PROLOG(Artificial Intelligent AI), SNOBOL(Special Purpose Programming Language), COBOL(Business) -Interpreted Language: BASIC -Compiled Language: PASCAL, COBOL, FORTRAN -State the advantages of HLLs over ML, LLL -State features of HLLs, BASIC, C,L PASCAL, COBOL, etc
11	OVERVIEW OF NUMBER BASES -Review of number bases: decimal, hexadecimal. -Conversion in number bases	-List digits in each number bases: i) Binary-2, Octal-8, Decimal-10, Hexadecimal-12 ii) Leads students to carry out conversion of a given number to another number base. E.g. 8_{10} to binary number $=8_{10}=1000_2$
12	OVERVIEW OF NUMBER BASES -Basic arithmetic in number bases -Addition and subtraction	-Carry out simple arithmetic operation using each number bases. i) Addition operation e.g. $110_2 + 111_2, 004_5 + 234_5$ ii) Subtraction operation e.g. $122_4 - 032_4, 1110_2 - 0101_2$ etc.
13	Revision	Revision
14	Examination	Examination

COMPUTER STUDIES

SS 3 SECOND TERM

WEEK	TOPIC/CONTENT	ACTIVITIES
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1	DATA REPRESENTATION -Definition of data representation. -Description of data representation. -Character set.	-Teacher leads students to define and list methods of data representation. -Description of data representations method: Bits, BCD, EBCDIC, -ASCII -Display character sets. ASCII: American Standard Code for Information Interchange.
2	SECURITY AND ETHICS -sources of security breaches -virus, worm and Trojan horse. -Poorly implemented or lack of ICT Policy.	Teacher leads students to list out the sources of security branches. E.g Virus, worms and Trojan horse. - Poorly implemented or lack of ICT Policy -poorly implemented network -careless giving out of personal and vital information on the net without careful screening.
3	SECURITY AND ETHICS - Preventive measures - Legal issues - Web content - Piracy - Cyber-Crime - Hacking. - Crime, etc	Leads students to list preventive and discuss preventive measures against security breaches: -use of anti-virus software -use of fire fox -exercising care in giving out personal and vital information -encryption, proper network, implementation and policy, using sites with web certificates, exercising care in opening e-mail attachments.
4	SECURITY AND ETHICS -legal issue -web content -piracy -cyber crimes Hacking	legal issues: -Copy right -Ownership right to: text, image, audio, video -Web content. Subject to existing laws of host country -piracy: software, audio, video -Cyber crimes: identify theft, internet fraud. -Hacking: gaining authorized access to resources with the intention to cause harm.
5	Revision	Revision
6	Examination	Examination

GEOGRAGHY

SS 3 FIRST TERM

WEEK	TOPIC / CONTENT	ACTITIVIES
1	<p>Earth Internal Process (Earth's Quakes)</p> <ul style="list-style-type: none"> - Definition of earth quakes and explanation of terms (origin, tremor, epicenter, and shock waves) - Causes and region of earthquakes - Effects of earthquakes (displacement of earth's crust, rising and lowering of coastal rocks, rising and lowering of ocean flows, landslides and cracks, etc 	<p>Teacher :</p> <ul style="list-style-type: none"> - Use elementary films to guide discussions on (meaning, origin/focus of earthquakes, causes of earthquake, earthquake regions and their characteristics features, effects of earthquakes on earth's environment - Supervise and guide student to visit earthquake regions <p>Students:</p> <ul style="list-style-type: none"> - Watch documentary films - Listen attentively to teachers explanation, ask questions and answer questions - Draw and insert earthquake regions on a world map <p>Instructional Material :</p> <ul style="list-style-type: none"> - Documentary, Video films, world Map, Diagrams and sketches, Drawing paper, Tracing Paper, stencil.
2	<p>Volcanicity:</p> <ul style="list-style-type: none"> - Meaning, processes (crystal disturbances, Intrusion and extrusion, eruption and emission,etc) and regions of occurrence. - Characteristic features of landform in regions: Intrusive features/landforms - Extrusive features /landform 	<p>Teacher :</p> <ul style="list-style-type: none"> - Use documentary films to guide discussions on (volcanicity processes, volcanic regions of the world - Intrusive features/landforms in volcanic regions, extrusive features and effect of volcanicity - Supervise and guide the students <p>Students :</p> <ul style="list-style-type: none"> - Watch documentary films - Listen attentively to teachers explanation, ask questions and answer questions - Draw and insert volcanic regions on a world map. <p>Instructional Material :</p>

		- Documentary, Video films, world Map, Diagrams and sketches, Drawing paper, Tracing Paper.
3	Karst (Limestone) Topography <ul style="list-style-type: none"> - Meaning and characteristics of karst topography - Surface features of karst regions - Underground features and importance of karst topography 	Teacher : <ul style="list-style-type: none"> - Takes students for field experience of karst regions (where possible) - Use simple experiments, pictures, maps and documents - Helps and guides discussion on surface and underground water Students : <ul style="list-style-type: none"> - Go on field experience where possible - Watch documentary films - Listen attentively to teacher's demonstration, explanation, ask questions and answer questions - Draw diagrams of karst regions Instructional Material : <ul style="list-style-type: none"> - Samples of limestone - Documentary, Video films, pictures, Map,
4	Denudational Process <ul style="list-style-type: none"> - Meaning , types (weathering and mass movement) sequence and factors affecting denudation. - Weathering: Definition and factors affecting it. - Types of weathering, physical and mechanical weathering 	Teacher : <ul style="list-style-type: none"> - Uses pictures, films and models to explain the meaning of denudation. - Takes students on field work - Guide class discussions on denudational processes and factors affecting it. - Guide and supervise students on field work. Students : <ul style="list-style-type: none"> - Watch documentary films - Participate in class discussion and guided field work Instructional Materials : <p>Films, pictures, models, diagrams and sketches. Quarry sites</p>
5	Denudational Processes Cont. <ul style="list-style-type: none"> - Weathering : Chemical weathering - Mass movement or mass wasting. 	Teacher : <ul style="list-style-type: none"> - Takes students on field work to observe weathering effects - Use pictures, films and models to explain the meaning of weathering

	<ul style="list-style-type: none"> - Definition and factors affecting it - Types and effects of mass movement - 	<ul style="list-style-type: none"> - Guide and supervise students <p>Students :</p> <ul style="list-style-type: none"> - Participate in field work - Watch documentary films, ask and answer questions. - Draw sketch diagrams showing effects of weathering in landforms <p>Instructional Materials : Films, pictures, models, diagrams and sketches. Drawing paper.</p>
6	<p>Climatic Change</p> <ul style="list-style-type: none"> - Meaning and causes(human and natural causes); human causes/green house effect, ozone layer depletions, chloro-floro carbon (CPC) gasses, carbon emission and deforestation and gas flaring - Natural causes: movement of continents(plate tectonics, solar output of radiation, variation in the orbit of the earth, volcanism, ocean variability, etc) - Consequences (effects) of climatic change. Melting of ice carps, high rain fall, increasing temperature, submergence of coastal cities - 	<p>Teacher :</p> <ul style="list-style-type: none"> - Use documentary /pictures to explain climatic changes on human environment. - Discuss causes and consequences of changes on human environment. - Give examples of observed consequences (Lagos and Port-Harcourt etc) - Guide students to identify preventive measures/remedies to the problem <p>Student :</p> <ul style="list-style-type: none"> - Watch documentary films - Listen to teacher, ask and answer questions - Participate in class discussion <p>Instructional Materials :</p> <ul style="list-style-type: none"> - Documentary films, posters, photographs, model, government publications e.g environmental protection laws.
7	<p>Climate change Contd.</p> <ul style="list-style-type: none"> - Consequences (effects) of climate change; desertification, flooding, drought, eye contacts, etc - Solutions (Remedies) to climatic change: afforestation, re afforestation, zero carbon emission 	“

	<ul style="list-style-type: none"> - Solution to climate change: population reduction, legislation etc. 	
8	<p>Satellites Remote sensing</p> <ul style="list-style-type: none"> - Definition of the concepts ' Remote Sensing, satellite (Nigeria's Sat 1, 1 KONOS, SPDT, RADAR, NICON, SAT 1, ERs- 1, etc) and satellite remote sensing - Application of satellite remote sensing; forest environment, agriculture, telecommunication, transportation, emergency responses, etc - Relationship between GIS and remote sensing. 	<p>Teacher :</p> <ul style="list-style-type: none"> - Explains the following with examples- Remote sensing, satellite e.g Nigeria Sat1, IKONOS, SPOT, Radar, NICOM SAT 1, ERs -1, etc. satellite remote sensing - Takes students on field work - Supervising students on field work - Guide discussion on application of remote sensing and the relationship between GIS <p>Students :</p> <ul style="list-style-type: none"> - Go on field work - Listen to the teacher, ask and answer questions - Participate in class discussions - Write reports <p>Instructional Materials: Slides, satellite images, multimedia CD on satellite, posters etc.</p>
9	<p>Geographic Information system (GIS)</p> <ul style="list-style-type: none"> - Areas of use: defence and agriculture <ul style="list-style-type: none"> - Area of use: Urban development and mapping - Area of use: surveying, transportation and census 	<p>Teacher :</p> <ul style="list-style-type: none"> - Explain the applications of GIS in various activities like agriculture, defence, mapping, urban development, etc. - Initiates and guides class discussion on problems militating against implementation in Nigeria <p>Students :</p> <ul style="list-style-type: none"> - Listen to the teacher, ask questions and answer questions - Participate in class discussion <p>Instructional Materials: Slides, satellite images, multimedia CD on GIS published materials.</p>
10	<p>Problems with GIS Implementation in Nigeria</p> <ul style="list-style-type: none"> - Power problem 	“

	<ul style="list-style-type: none"> - Personal problem - Capital (cost of software and hardware) 	
11	<p>Economic Community of West African States (ECOWAS)</p> <ul style="list-style-type: none"> - Meaning, member countries and purpose/mandate of ECOWAS - Achievements/advantages of ECOWAS - Problems of ECOWAS and their solutions. 	<p>Teacher :</p> <ul style="list-style-type: none"> - Explain the meaning of ECOWAS - Gives students assignment on the internet to obtain information on ECOWAS member states purpose and mandate, merits and problems of ECOWAS - Guide class discussion and supervise students visit to internet cafe <p>Students :</p> <ul style="list-style-type: none"> - visit internet café, write reports of their findings - Participate in class discussion. - Draw a map of West Africa and insert the countries on the map <p>Instructional Materials: Slides, diagrams and sketches, internet, documentaries, drawing paper tracing.</p>
12	Revision	Revision
13	Examination	Examination
14	Examination	Examination

GEOGRAGHY

SS 3 SECOND TERM

WEEK	TOPIC/CONTENT	ACTITIVIES
1	<p>Trade :</p> <ul style="list-style-type: none"> - Definition and types of trade (national and International) - Reasons for trade - Importance of trade (social, political and economics. 	<p>Teacher :</p> <ul style="list-style-type: none"> - Takes students to visit places where trading of different types take place - Uses documentaries , illustrations, pictures and photographs - Guide class discussions <p>Students :</p> <ul style="list-style-type: none"> - Watch films on world trade centres - Listen to teacher ask and answer questions

		<ul style="list-style-type: none"> - Participate in class discussions <p>Instructional Materials :</p> <ul style="list-style-type: none"> - Documentary films, markets, banks, maps etc.
2	<p>Tourism (World)</p> <ul style="list-style-type: none"> - Meaning of tourism /tourist centers - Justification for tourism (leisure, recreation and education) and importance of tourism. - Problems of tourism and their solutions. 	<p>Teacher :</p> <ul style="list-style-type: none"> - Takes students to visit recreational facilities in the locality. - Uses documentaries , illustrations, pictures and photographs to explain - Helps students to locate world tourist centres - Guide class discussions <p>Students :</p> <ul style="list-style-type: none"> - Visit recreational centres, watch films, listen to teachers, ask and answer questions. - Participate in class discussions, locate tourist centres on maps. <p>Instructional Materials :</p> <ul style="list-style-type: none"> - Documentary films, diagrams pictures, maps etc.
3	<p>Agriculture in Nigeria:</p> <ul style="list-style-type: none"> - Cattle rearing in Nigeria: Areas of cattle rearing, consumption areas, factors that favour cattle rearing, importance and problems. - Fishing : Meaning, fishing areas, methods of fishing and types of fishes caught. - Importance of fishing, problems of fishing in Nigeria and their solutions 	<p>Teacher :</p> <ul style="list-style-type: none"> - Takes students on field work to observe Fulani cattle rearers where possible. - Uses maps, pictures, documentaries, films and slide to guide class discussion. - Guide and supervise students as they draw the map of Nigeria - Asses students field work reports. <p>Students :</p> <ul style="list-style-type: none"> - Participate in outdoor activities - Make reports/record of observations - Identify and classify various items - Participate in class discussions - Draw maps of Nigeria and insert the major area of production <p>Resources; maps, illustrative diagrams and sketches, pictures and slides, documentaries etc.</p>
4-13	Revision and Examinations	

CHRISTIAN RELIGIOUS STUDIES

SS 3 FIRST TERM

WEEK	TOPIC	CONTENT	ACTIVITIES
1.	The Baptism of Jesus Christ	<p>a) Meaning and purpose of baptism.</p> <p>b) Purpose of Jesus' baptism.</p> <p>c) Synoptic account of the baptism of Jesus. Matt. 3:13-17, Mk. 1:9-11, Luke 3:21-22.</p> <p>d) Significance of the baptism of Jesus Christ.</p>	<ul style="list-style-type: none"> • Guide the students to clarify the meaning and purpose of baptism. • Explain the purpose of Jesus' baptism since Jesus had no sin. • Meaning and types of baptism though they have the same purpose. • Pictorial chart showing Jesus' baptism by John the Baptist.
2.	Temptation of Jesus	<p>a) Synoptic account of the temptation of Jesus. Matt. 4:1-11, Mk. 1:12-13, Lk. 4:1-13.</p> <p>b) Significance of each of the three temptations.</p> <p>c) Temptations in the world today.</p> <p>d) Ways of overcoming temptation to sin today – prayer, self control, etc.</p> <p>e) Means Jesus used to overcome three temptations – by using words of God.</p>	<ul style="list-style-type: none"> • Compare and contrast the different accounts of the temptation of Jesus Christ in the synoptic. • Suggest ways of overcoming temptations in the world today. • Picture of Jesus being tempted by Satan.
3.	Call to Discipleship	<p>a) Importance of call of disciples to Jesus' ministry. Matt. 28:19-20, Mk. 16:15-19, Lk. 5:10.</p>	<ul style="list-style-type: none"> • Guide the students to read the reference passages. • Discuss what their reactions should be if God calls them.

		<p>b) Attitude of Christians today to God's call.</p> <p>c) Call of the disciples and their responses. Matt. 4:18-25, 9:9-13, 10-14, Mk. 1:16-20, 2:13-17, Lk. 5:1-11.</p> <p>d) Factors that militate against discipleship. Matt. 8:18-22, Lk. 9:51-63, 14:25-33.</p>	<ul style="list-style-type: none"> • Lead them to discuss the different responses some gave to Jesus and how Jesus reacted to them. E.g. "Lord let me first go and bid my people bye", Lord let me first go and bury my father".
4.	Mission of the Twelve and the Seventy	<p>a) Mission of the Twelve. Matt. 10:1-15, Mk. 6:7-13, Lk. 9:1-16.</p> <p>b) Achievement of the Twelve Disciples.</p> <p>c) Mission of the Seventy. Lk. 10:1-20.</p> <p>d) Achievement of the Seventy Disciples.</p> <p>e) Differences in the Synoptic Accounts of The Mission of the Twelve: Mathew had The Jewish audience in mind. Luke had a more universal outlook.</p> <p>f) Differences and similarities in the mission of the twelve and seventy disciples.</p> <p>g) Significance of each mission.</p>	<ul style="list-style-type: none"> • Guide the students to read the gospel passages. • Note the instructions Jesus gave to each group. • Discuss the report of the group. • Outline the differences in the synoptic accounts concerning the instructions given to the disciples. • Lead the students to discuss the similarities and differences between the mission of the twelve and the seventy.

5.	Trial of Jesus Christ and His Death.	<p>a) Jesus before the high priest. Math. 26:36-75, Mk. 14:53-75, Lk. 22:66-71.</p> <p>b) Jesus before pirate. Math. 27:11-31, Mk. 23:1-25, Lk. 23:1-5.</p> <p>c) Jesus before Herod. Lk. 23:6-12.</p> <p>d) The crucifixion and burial of Jesus.</p> <p>e) The significance of Jesus' death on the cross for the salvation of human beings.</p>	<ul style="list-style-type: none"> • Guide the students to read the reference passages. • Guide the students to watch the video clip on the trials and temptations of Jesus Christ. • Pause at intervals to explain the topic and salient points.
6.	The Resurrection of Jesus Christ.	<p>a) The accounts of the resurrection of Jesus. Math. 28:1-8, Mk. 16:1-8, Lk. 24:1-11.</p> <p>b) Women activities in the story of resurrection.</p> <p>c) Compare and contrast the three accounts of resurrection in the synoptic.</p> <p>d) Importance of the resurrection of Jesus to Christian faith</p>	<ul style="list-style-type: none"> • Discuss the activities of women in the resurrection. • Compare and contrast the synoptic accounts of resurrection. • Explain the importance of resurrection. • Pictorial charts showing the empty tomb, the women at the tomb, the angels watch the tomb, etc.
7.	Communal Living in the Early Church.	<p>a) Election of the successor of Judas Iscariot. Acts 1:15-26.</p> <p>b) Characteristics of the early Christian community. Acts</p>	<ul style="list-style-type: none"> • Explain the differences between the Hellenistic and native Hebrew/Jews. • Guide the students to read the reference passages.

		<p>2:41-47, 4: 32-37.</p> <p>c) Problems of the early Christian community. Acts 5:1-11, 6:1.</p> <p>d) Solutions to the problems of the early church community.</p>	<ul style="list-style-type: none"> • Lead the students to relate the problems of early Christians to the problems of discrimination in our contemporary world.
8.	Holy Spirit and the Mission to the Gentiles.	<p>a) The promise of the Holy Spirit. Jn. 14:15-31.</p> <p>b) The coming of the Holy Spirit. Acts 2:1-13.</p> <p>c) Peter's speech. Acts 2:14-41.</p>	<ul style="list-style-type: none"> • Lead the students to read Acts 2:1-13. • Note the vital points in Peter's speech.
9.	Mission to the Gentiles and Opposition to the Gospel Message.	<p>a) Saul's conversion. Acts 9:1-19.</p> <p>b) Damascus and Jerusalem. Acts 9:20-30.</p> <p>c) Peter's ministry in Lydda and Joppa. Acts 10:44-48, 11:1-18.</p> <p>d) Arrest and imprisonment of the Apostles. Acts 4:1-31, 5:17-42.</p> <p>e) Opposition against Stephen. Acts 6:8, 7:10.</p> <p>f) Saul's opposition to the gospel. Acts 12:1-24.</p>	<ul style="list-style-type: none"> • Discuss the conversion of Saul. • Identify the key points in Peter's mission to Lydda and Joppa. • Outline the charges against Stephen. • Discuss Saul's and Herod's opposition to the early church.
10.	Paul's Missionary Journey.	<p>a) Paul and Barnabas are called by the Holy Spirit. Their missionary journey activities in the first missionary journey. Acts 13.</p>	<ul style="list-style-type: none"> • Lead the students to discuss the biblical references with aid of map. • Note the important events that took place at any place they visited.

		b) Paul's activities at Macedonia in second missionary journey. Acts 15:40-41, 16:1-9, Acts 16:10-40.	
11.	Revision		
12-13	Examination		

CHRISTIAN RELIGIOUS STUDIES
SS3 SECOND TERM

WEEK	TOPIC	CONTENT	ACTIVITIES
1.	The need for order in the society.	a) Submission to those in legitimate authority. b) People in authority to serve with the fear of God. Rom. 13:1-7. Discuss the meaning of "civic responsibilities", "constitution", "charter" and human right. c) The constitution of Nigeria. d) The African charter on human and people's rights.	<ul style="list-style-type: none"> • Guide the students to discuss the meaning of "civic responsibilities", "constitution", "charter" and "human rights".
2.	Civic Responsibilities	a) The U.N. declaration on human rights – Good citizenship. b) Peter's message on the duties of a good citizen. 1Pet. 2:13-17. c) Definition of HIV/AIDs. d) Different ways of contracting	<ul style="list-style-type: none"> • List the characteristics of a good citizen and guide the students to enumerate ways of maintaining law and order. • Lead students to define HIV/AIDs. • Guide students to identify ways of

		<p>HIV/AIDs and the symptoms.</p> <p>e) Prevention of HIV/AIDs.</p> <p>f) People were sick and Jesus care for them and healed them. Jn 4:46-54, Jn. 5:1-8, Jn. 9:1-7.</p>	<p>contracting HIV/AIDs and the symptoms and lead the students to describe how HIV/AIDs can be prevented.</p> <ul style="list-style-type: none"> • Pictures of those infected by HIV/AIDs in a hospital with people sitting beside. • Guide students to narrate the love and compassion of Jesus to the sick using biblical passage.
3.	Dignity of Labour	<p>a) The obligation to work.</p> <p>b) Enumerate different types of labour. Thess. 3:6-15, 2:9, Col. 3:23-25, Eph. 6:5-8, Titus 3:1.</p> <p>c) Jesus the carpenter's son. Math. 13:55, Mk. 6:3.</p> <p>d) The Apostles as fishermen. Jn. 21:1-8.</p> <p>e) Discussion on the concepts of skill acquisition "empowerment and creativity".</p>	<ul style="list-style-type: none"> • Guide the students to enumerate different types of labour and lead students to study the biblical passages. • Video films of people at their different work places. • Guide students to list things they can do with their hands, pictures of farmers, fishermen, etc. • Lead discussions on the concepts of "skill acquisition and empowerment and creativity".
4.	Revision/Mock Examinations.	•	

ENTREPRENEURSHIP (TRADE SUBJECTS)

CATERING CRAFT

SS 3 FIRST TERM

WEEK	TOPIC/CONTENT	ACTIVITIES
1	ACCOMPANIMENTS Definition of Accompaniments <ul style="list-style-type: none"> • Types of accompaniments • Food accompaniments • Soup accompaniments • Table accompaniments • Functions of accompaniments to various covers 	Teacher: Explain the meaning of accompaniments. Enumerate the different types of accompaniments. State the uses and importance of accompaniments. Explain the various functions of accompaniments to food cover. Students: Participate in the discussion and answer questions. Materials: Samples of different types of accompaniments. A chart showing different accompaniments.
2	FOOD ACCOMPANIMENTS Types of Food Accompaniments <ul style="list-style-type: none"> • Garlic sauces • Salad dressing • Vinegar dressing • Ketchup etc Advantages and disadvantages of food accompaniments.	Teacher: Explain food accompaniments. Enumerate the various types of food accompaniments. Explain the advantages and disadvantages of food accompaniments Students: Participate in the discussion Material: picture showing food accompaniments
3	SOUP ACCOMPANIMENTS Types of Soup Accompaniments <ul style="list-style-type: none"> • Bread roll • Croutons etc Advantages and disadvantages of soup accompaniments	Teacher: Explain soup accompaniments. Enumerate the various types of soup accompaniments. Explain the advantages and disadvantages of soup accompaniments Students: participate in the discussion and ask questions.
4	TABLE ACCOMPANIMENTS Types of table accompaniments <ul style="list-style-type: none"> • Cruet set • Table number • Flower vase • Napkin pad • Tooth pick 	Teacher: List table accompaniments Students: Participate in the discussion and ask questions Materials: Soup Accompaniments

5	BEVERAGES Types Of Beverages <ul style="list-style-type: none"> • Alcoholic beverages • Non-alcoholic beverages Bar Services <ul style="list-style-type: none"> • Bar service/origin of bar • Types of bar • Functions of bar • Bar service personnel • Bar service equipment 	Teacher: Explain the meaning of Alcoholic and non-alcoholic beverages. Explain bar services. Discuss the origin. Enumerate the functions of bar service personnel and equipment. Students: participate in the discussion, ask and answer questions. Materials: Charts of different types of drinks. Alcoholic and non-alcoholic drinks.
6	NON-ALCOHOLIC BEVERAGES Definition of Non-Alcoholic Classes of Non-Alcoholic Drinks <ul style="list-style-type: none"> • Aerated • Natural spring water • Mineral water • Squashes • Juices • Syrups • Tea/coffee and cocoa drinks etc 	Teacher: Explain the meaning of non-alcoholic drinks. Enumerate the various types of non-alcoholic drink. (practical demonstration) Students: Participate in the discussion, ask and answer questions. Practice in the production of non-alcoholic drinks/beverages Materials: display of different types of non-alcoholic beverages
7	ALCOHOLIC BEVERAGES Definition of alcoholic drinks Classes of alcoholic drinks <ul style="list-style-type: none"> • Beer • Spirit etc 	Teacher: Explain the meaning of alcoholic drinks. Enumerate the various types of alcoholic drink. (practical demonstration) Students: Participate in the discussion, ask and answer questions. Materials: Display of different types of alcoholic drinks
8	ALCOHOLIC BEVERAGES Definition of alcoholic drinks Classes of alcoholic drinks <ul style="list-style-type: none"> • Beer • Spirit etc 	Teacher: Explain the meaning of alcoholic drinks. Enumerate the various types of alcoholic drink. (practical demonstration) Students: Participate in the discussion, ask and answer questions. Materials: Display of different types of alcoholic drinks
9	TEST INTERPRETATION OF FOOD AND BEVERAGES (SERVICE)	Teacher: Explain the processes and methods of various services in food and beverage area. <ul style="list-style-type: none"> - Table of order - Writing of docket

		<ul style="list-style-type: none"> - Serving of water - Serving of food - Clearing away of dishes (used plates) <p>Students: participate in the test interpretation Material: samples of questions</p>
10	FLOWER AND CONFECTIONARIES Dough product: <ul style="list-style-type: none"> - Chin-chin - Egg roll 	<p>Teacher: Explain the process of dough preparation. Demonstrate the preparation of chin-chin and egg-roll</p> <p>Students: participate in the preparation and frying of flour products</p> <p>Material: Ingredients for pastry</p>
11	Revision	Revision
12	Examination	Examination

CATERING CRAFT

SS 3 SECOND TERM

WEEK	TOPIC/CONTENT	ACTIVITIES
1	SPECIAL MEAL <ol style="list-style-type: none"> i. Cookery for invalids and convalescents ii. Factors to consider when planning invalid and convalescent diets. iii. Recipe for invalid and convalescent iv. Practical 	<p>Teacher: Explain the meaning of invalid and convalescent. Enumerate the factors to consider when planning a meal for invalid and convalescent. Suggest meals for invalid and convalescent (practical demonstration)</p> <p>Students: Participate in the discussion, ask and answer questions. Participate in the preparation of meals</p> <p>Material: A chart showing different groups. Ingredients for types of dishes</p>
2	SPECIAL MEAL Meals for: <ul style="list-style-type: none"> - Infants - Adolescents - Pregnant mothers - Lactating mothers 	<p>Teacher: Explain the different groups in relation to food cookery.</p> <p>Students: Participate in class discussion. Copy board summary</p> <p>Material: Charts and pictures showing types of meals.</p>

3	SPECIAL MEAL Vegetarian Meals - Types of vegetarian meals - Practical	Practical demonstration Students: Participate in the practical demonstration Materials: Ingredients for the cooking of vegetarian meals.
4-5	MOCK EXAMINATION	
6-10	REVISION	
11-12	WASSCE EXAMINATION	

DATA PROCESSING

SS 3 FIRST TERM

WEEK	TOPIC / CONTENT	ACTIVITIES
1	Indexes -index architecture -types of indexes -primary and secondary indexes -indexes using composite search keys.	-Defines indexes -explains index' architecture clustered and non – clustered -lists and explains types of indexes e.g. pritmap, dense etc with their differences -explains how data entries are organized in order to support efficient retrieval of data -explains features of primary and secondary indexed Students to listen and participate actively. Instructional Resources: Computer sets, library card.
2	Data Base Security -introduction to db security -access control -methods of access control	-leads the students to define data security -leads the students to define access control. -lost and explains various ways of ensuring access control e.g. password security, authentication etc. students should listen and participate actively Instructional Resources: Computer sets, library cards.
3	Data Base Security -role of the database administrator in security -encryption	-State and explain the roles of database administrator in ensuring security e.g insuring password -leads the students to define encryption and decryption

		-state basic types of encryption (symmetric and public key encryption) students takes note on teachers explanation Instructional Resources: be the internet
4	Crash Recovery Introduction to arise Other recovery Relates date stricture Write ahead log protocol	Leads the student to define Crash recovery Exp lams the functions Uncle pass Explain arias notations E.g. log Seguin number(Isn) Page L.S.N prevlsn etc Explains other recovery Related structures such An data base back up and redo logs Defines write ahead Protocol Students to listen and participate Actively in class Instructional Resources: charts
5	Parallel and Distributed Database -architecture for parallel database -introduction to distributed database	Defines the terms, parallel and distributed databases Explains the architecture for parallel database (systems in parallel shared memory, shared dish etc. Students to listen and participate actively instructional resources chart
6	Parallel and Distributed Databases -Distributed DBMS architecture -Storing data in a distributed DBMS	-States the importance of distributed and parallel DBMS architecture -List distributed DBMS architecture e.g storage devices multiple computers etc Students to listen and participate actively instructional resources chart
7	Networking -Meaning of networking	-Leads the students to define a computer network, internet and intranet -Lists and explains terminologies network modes, topology
8	Networking -Networking topologies	-Leads the students to define network topology -shows illustrations of the different types of topology e.g. bus, starring, mesh, tree, line etc -students should show these topologies using printed components in groups Instructional resources pictures of computer in a network.

9	Networking Types of networking	-Lists and explain the different types of networks – LAN, WLAN, WAN, MAN, SAN, CAN, PAN, and DAN with examples students should listen and make notes Instructional resources pictures of computers in a network
10	Computer Virus -Meaning of computer virus -Examples of virus -Sources -Virus warning signs -Virus detection and prevention	-Leads the students to define computer virus -Give examples of virus (Trojan) -state how they are contacted(internet programs infected flash etc) -leads the students to identify warning signs of computer virus -guide the students to identify anti – virus software (AVAS, AVG, MIFEC etc. Instructional resources pictures of anti virus packages computer system with anti – virus software installed .
11	Maintenance of Computer II -Details of Hardware maintenance	-Explains the process of maintaining computer hardware in detail students to copy board summary in the note books Instructional resources computers scraps in the lab.
12	Maintenance of computer II -details of software maintenance	-guides students on the procedure for software maintenance in details -students should be allowed to format system and install software's . Instructional resources software and hardware computers
13	REVISION	
14	EXAMINATION	

DATA PROCESSING

SS 3 SECOND TERM

WEEK	TOPIC / CONTENT	ACTIVITIES
1	Career Options in It date processing professions in computer	lead students to some computer profession e.g: application analyst Business analyst Data Base administrator Certified Software Manager etc identify computer professions functions Instruction Resource: Charts
2	Career Options in Data Processing qualities of a good professional	leads students and guides them to identify the the qualities of a good professional e.g. responsive knowledgeable, trustworthiness etc
3	career options in it data processing	Enumerates professional computer bodies in Nigerian e.g. computer professionals of Nigeria Nigeria Information Technology Development Agency Nigeria Internet Registration Association etc.

ANIMAL HUSBANDRY

SS 3 FIRST TERM

WEEK	TOPIC	CONTENT	ACTIVITIES
1	Animal improvement	i. Definition of animal improvement ii. Aims/importance of animal improvement	i. Teacher guides the classroom discussion ii. Students participate actively in the discussion
2	Animal improvement	i. Methods of farm animal improvement - Introduction, advantages and disadvantages - Selection, advantages and disadvantages	i. Teacher guides the classroom discussion ii. Students participate actively in the discussion
3	Animal improvement	i. Methods of farm animal improvement - Breeding, advantages and disadvantages	i. Teacher guides the classroom discussion ii. Students participate actively in the discussion

		- Hybridization, advantages and disadvantages	
4	Artificial insemination	i. Meaning of artificial insemination ii. Methods of artificial insemination <ul style="list-style-type: none"> - Artificial vagina - Massage method - Electro-ejaculation - Recovery of semen from vagina after service 	i. Teacher guides the classroom discussion ii. Teacher demonstrates semen collection
5	Practical on artificial insemination	i. The teacher organizes visit to an established farm ii. The teacher displays artificial insemination equipment/tools.	i. The teacher provides videos of artificial insemination for students to watch
6.	Advantages and disadvantages of artificial insemination	i. Advantages of artificial insemination ii. Disadvantages of artificial insemination	i. Teacher directs classroom discussion ii. Students participate actively iii. Teacher displays pictures/charts.
7	Farm animal diseases and agents	i. Define disease ii. State the disease causing organisms iii. Discuss factors that predispose farm animals to diseases iv. Basic symptoms of farm animal diseases.	i. Teacher directs classroom discussion ii. Students participate actively iii. Teacher displays pictures/charts.
8	Disease causing agents	Discuss the disease causing agents and their mode of transmission <ul style="list-style-type: none"> i. bacteria ii. virus iii. fungi iv. protozoa 	i. Teacher directs classroom discussion ii. Students participate actively

9	Livestock parasites and pests	<ul style="list-style-type: none"> i. Meaning of livestock parasites/pests ii. Classes of livestock parasites e.g. ectoparasite, endoparasite iii. Effects of parasites on farm animals 	<ul style="list-style-type: none"> i. Teacher displays live parasites ii. Displays pictures of farm animals affected by parasite
10	Practical on farm animal disease	<ul style="list-style-type: none"> i. Visit to a veterinary clinic to observe live sick farm animals ii. Observation of and collection of ecto parasites of farm animals iii. Observation of and collection of endo parasites of farm animals 	<ul style="list-style-type: none"> i. Students to watch videos of sick farm animals ii. Students to make collection of animal parasites in the laboratory
11	Practical on farm animal disease	<ul style="list-style-type: none"> i. Visit to an established poultry farm. ii. Students to observe the school poultry birds for symptoms of disease and write report on them. 	<ul style="list-style-type: none"> i. The teacher demonstrates control measures of farm animal parasites
12	Revision		
13	Examination		

ANIMAL HUSBANDERY

SS 3 SECOND TERM

WEEK	TOPIC	CONTENT	ACTIVITIES
1	Prevention and control of farm animal diseases	I). Methods of disease control <ul style="list-style-type: none">- Quarantine- Vaccination- Inoculation- Hygiene- Good feeding- Rotational grazing etc.	I). The teacher directs the classroom discussion II). The students participate actively in the class
2	Prevention and control of livestock parasites	i). Methods of parasites control <ul style="list-style-type: none">- Isolation- Hygiene- Use of chemicals- Rotational grazing	I). The teacher directs the classroom discussion II). The students participate actively in the class
3	Practical on livestock disease and parasite control	i). Demonstration of various disease and pest control methods in the school farm ii). Visit to a veterinary clinic to observe the animal health workers	Students are assigned to control disease in the school farm animals
4-12	REVISION/MOCK/WASSCE/SSCE		