### SCHEME OF WORK ON ALL THE SUBJECTS IN SS 2

### **COMPULSORY SUBJECTS**

#### ENGLISH LANGUAGE SS II 1st TERM

WEEK	TOPIC	CONTENT	ACTIVITIES
1	Speech	Listening comprehension: listening to answer questions on a given passage or recorded tapes on HIV/AID, drug abuse or real life situation	The teacher presents an interesting passage to students and asks the students to listen and identify main points/ideas discusses the passage with students while they respond appropriately.
	Vocabulary	Words associated with the human internal body system and function	The students should be able to mention the human internal body systems and list their functions.
	Structure	Noun phrases: position and functions	Identify features or functions of noun phrases and use noun phrases in sentences.
2	Speech	Listening comprehension: Listening to recorded speeches/teachers model speech for comprehension	Students should listen attentively to the speeches for comprehension and also plan their speeches before delivery.
	Vocabulary	Words associated with health; sickly, well, condition, diagnoses, casualty, emergency etc	Mention words association with health and use these words freely.
	Structure	Pronouns: relative and demonstrative pronouns: functions and position	Identify relative and demonstrative pronouns and use them freely in sentences.
	Continuous writing	Expository essay: eg a. Controlling HIV/AIDS in Nigeria b. Managing population explosion in Nigeria	Discuss the style/format of expository essay and write expository essay
3	Speech	Making a toast: a. Meaning of a toast	Define a toast, prepare a toast and deliver a toast

		b. Occasions for a toast	appropriate to a given occasion
	Reading Comprehensi on	Reading for implied meaning	Read to grasp the main points, extract points from the passage and write the difference between stated and implied meaning.
	Structure	Nominalization	Identify words that are nominalized in passages, turn adjectives and verbs to nouns and use them in sentences appropriately.
	Continuous writing	Writing speeches for specific purposes. Introduction, purposes and features of speeches	Discuss the various purposes of speech, features and write a speech on a given topic.
4	Speech	Unstressed vowel sounds e.g /a/	Identify the unstressed vowels sounds, pronounce them and use them appropriately.
	Structure	Pronouns: Other types of pronouns	Identify the other types of pronouns, give examples and use them in sentences.
	Reading Comprehensi on	Reading for critical evaluation	Read a passage carefully and detect in various reading materials evidence of illogicality, inconsistency, faulty reasoning etc.
	Continuous writing	Argumentative essay: Introduction; definition and features	Define argumentation essay and explain the features
5.	Speech	Consonant clusters: two consonants in initial position e.g slice, troupe, scalp, cloud, crush etc	Pronunciation drills, give examples of two consonant clusters at the initial position and use them in sentences.
	Vocabulary	Modifiers [word modifiers] adjectives of colour and small, adverbs of manner, rate of occurrence and degree	Explain how a modifier adds more meaning to a word, identify the modifiers and use them in sentences

	Summary writing	Reading to summarize longer sentences into a specified number of sentences	Read the passage identify topic sentences and write out the sentences using their own words
	Continuous writing	Argumentative essay a. Should female circumcision be abolished b. Military rule in better than certain rule	Write a well composed argumentative essay
6	Speech	Three consonants in initial position E.G Sprint, splash strong, shrike, spray e.t.c	Pronounce correctly the three consonants Chester at initial position and use them in sentences.
	Reading comprehensi on	Reading for main gist in a prose passage	Indentify the main ideas, keys sentences and answer question on the given passage.
	Structure	Adjectival phrases and their grammatical function in a sentence.	Identify adjectival phrases, say their function and use them in sentence
	Continuous writing	Creative writing {i} features of a short story e.g plot, characters, action, style, setting, theme etc. [2] features of a person eg high, concise language,	Discuss the features of a short story, poem and be able to write a short story and poem
7	Speech	Listening comprehension: listening for details/examples	Listen attentively to a recorded passage or read, identify the main points and give details of what they have listened to
	Vocabulary	Spelling of words: 1. Treatment of commonly miss pelt words 2. Dictation exercise and corrections. b. Use of dictionary	Explain meaning of words learnt, appreciate the importance of use of dictionary, make a list of commonly miss pelt words, write the dictated words correctly.
	Summary writing	Reading to summarize longer selections into a specific number of sentences	Read materials, identify topic sentences and write the topic sentences using their own words

	Continuous writing	Narrative essay	Discuss the features of a narrative essay and write a well composed narrative essay.
8	Speech	Vowels: /e/ and /3:/ E.g /e/ - set, bread / 3:/ - first, learn	Identify the vowels, /e/ and /3:/, pronounce them in words where they occur, give their own examples of words where they occur and use them in sentences correctly.
	Structure Adverbial phrases	Adverbial phrases and their grammatical functions	Identify the vowels,/e/ and /z:/, pronounce them in words where they occur, give their own examples of words where they occur and use them in sentence correctly.
	Reading Comprehensi on	Reading chapters of books and making notes	{1} Explain note making {2} explain the interrelatedness of listening and reading as receptive language skills. {3} make reference to previous passage relevant to this task. {4} Explain the purpose and approach of note making. {5} Engage in extensive work and practice in within and out side the classroom on note making {6} Explain clearly the difference between note making and reading books.
	Continuous writing: Formal letter	Letter of complaint feature of a formal letter, letter of complaint.	Differentiate between a formal letter and an informal letter. Discuss the features of a formal letter with reference to letter of complaints. Discuss similar WAES, SSCE and NECO past questions and write a well composed letter of complaint.
9.	Speech	Diphthongs; /i/, /ai/, /au/, /ei/, /e/, etc.	Identify the eight diphthongs correctly, pronounce them,

			list of words associated with the diphthongs and use them in sentences.
	Reading comprehensi on	Words substitution in passages {connotation and denotation}	Read passage carefully, Explain meaning of word in context and substitute words according to the contexts of usage answers question on the passages.
	Summary writing	Reading to summarize in a specific number of sentences	Read the passage carefully, identify the topic sentences and rewrite using their own words.
	Continuous writing	Formal letter: Letter of request with particular reference to a. Features of a formal letter b. Language	Discuss extensively past questions from NECO/WAEC examinations. Identify features of a formal letter. Write a well composed formal letter of request.
10	Speech	Vowels /i/ and /i:/ e.g bit and beat, bid and bead	Pronounce the vowels correcting, differentiate between the vowels /i/ and /i:/, list words associated with the vowels and use them in sentences
	Structure	Determiners e.g few, many, some, a little etc	Explain determiner, identify them and give examples. Use them correctly in sentences.
	Reading comprehensi on	Reading for critical evaluation	Read a passage carefully and defect in various reading materials evidence of illogicality, inconsistency, faulty reasoning etc.
	Continuous writing	Formal letter [other types] e.g application, apology, order, etc	Identify features of a formal letter, discuss the features of formal letters, discuss a model formal letter of application apology etc and write a well composed letter of application, apology etc.

11	Speech	Vowels /u/ and /u:/ e.g /u/ - f <u>u</u> ll and w <u>ou</u> ld /u:/ - f <u>oo</u> l and c <u>ou</u> p	Identify the two vowels, pronounce the vowel /u/ and /u:/ correctly, differentiate between the two vowels, list words associated with the vowels, portray many examples and use them correctly in sentences.
	Reading comprehensi on	Word substitution in passages	Read the passage carefully, explain the meaning of words, substitute the underlined words with other words according to the context of usage. Answer question on the passage.
	Continuous writing	Revision [formal letter: Complaints, request, application apology etc]	Identify features of a formal letter, discuss the features, write a formal letter.
12	Speech	Revision of vowels taught [pure vowels and diphthongs]	Pronunciation drills. Practice on exercises.
	Reading comprehensi on	Revision {guidelines on answering comprehension passage using a passage}	
	Vocabulary	Revision: Exercises on lexis.	
	Continuous writing. And narrative essays	Expository and narrative assays.	Discuss and write expositing and narrative essays.
13	General renewal	General renewal	General renewal
	Examination and closing.	Examination and closing.	Examination and closing.

# ENGLISH LANGUAGE SS II SECOND TERM

WEEK	TOPIC	CONTENT	ACTIVITY
1	Reading comprehension	Reading for main gist.	Read the passage carefully identify points and their inter relationship with each other. Answer questions an the passage.

	Structure	Prefixes as word extension making for new meaning e.g 'un' 'nus' 'il' 'in' 'im' etc healthy – unhealthy, belief – unbelief spell – misspell understand – misunderstand etc	Explain how prefixes can generate new word and meanings from basic root words. Use prefixes to create antonyms and draw up a list of words to give antonyms of the words using prefixes.
	Vocabulary development	Words associated with environment: Meaning, environmental problem e.g; environmental pollution, pest control, bush burning, disposal of refuse, sewage system, smoking, drainages, environmental degradation etc.	Explain meaning of environment, mention types of environmental problems, list the importance of a clean environment and write the environmental problems.
2.	Speech	Listening to poetry for comprehension/pleasure e.g 1. Type dirge, epic, lyric 2. language {a} concise {b} unique {c} high	Read the poems while students listen. Discuss content of the poem, identify different types of poetry, identify the different types of language of poetry, compose a poem of their own.
	Vocabulary Development	Words associated with building with building and building construction {meaning of building, types of words associated with building e.g foundation, walls, land, documents etc.	Define meaning of building, mention types of building, list words associated with building and explain their meanings, use these words in sentences, engage students in spelling drills in words associated with building.
	Structure	Preservative prefixes e.g. 're' as in, work – rework Examine - reexamine Affirm – reaffirm Elect – reelect Form – reform etc.	Explains the meaning of preserve, pronounce the words formed from the suffix, discuss the use of these words and use the words in sentences
	Continuous writing	Free writing: (1) A short write – up such as a story, poem, play on anything of interest or a personal experience (2) Short stories dealing with daily events	

		(3) features of short stories, plays, poems with attention to literacy devices: rhythm, simile, metaphor etc.	
3	Speech	Listening comprehension: listening to summarise speeches, lectures and note making	- Listen attentively, identify the main point, write down key point or main points from the speech or lecture.
	Structure	Figures of speech e.g: Simile, metaphor, personification, hyper-bole, etc	- Explains figures of speech, mention the different figures of speech and explain them with numerous examples, use them in sentences.
	Reading comprehension	Reading for specific structural pattern (selected passages from the main textbook or magazine on topics such as; gender issues, deregulation, religious and ethnic conflicts, human right issues, youth unemployment and restivenss)	- Read passage carefully, discuss the issues in the passage, identify main ideas in the passage, identify the major phrase style and answer questions on the passage.
	Continuous writing	Speech writing: An address given on a prize given day. Features of a speech	- Discuss the features of a speech, discuss model speeches and write a well composed address on a prize given day. Teachers should make available sample of speeches presented on a prize given day.
4	Speech	Oral: argument/debate: debates on the following topics:  1. Capitalism is better than communism  2. We need health education and inspectors not doctors  3. University education should be compulsory	- Students should listen attentively to their class mates during debate. Students should be selected based in the following: a. Persuasiveness b. Grammatical structures and choice of words/vocabulary

		c. Correctness of pronunciation including word stress pattern and d. Fluency students must be encouraged to be observe all these criteria
Structure	Suffixes e.g –able, age, arian, cide, ify etc	- for all Explain the meaning of suffixes, identify suffixes for creation of relevant words, from basic root words, list words with suffixes and explain their meaning. Make use of these words in sentences
Vocabulary development	Words associated with law and order e.g. order in court, legal actions, police turture, judge, defence lawyer, etc.	- Explain laws and order, list/mention words associated with law and order and explain their meanings. Use the words in sentences.
Continuous writing	Argumentative essay:  a. Present a view point b. Prove a point (argue for or against a particular view point) c. Conclude the presentation. Example; a. Military rule is better than civilian rule b. Should female circumcision be abolished or other topics	- Explain argumentative essay. Discuss any argumentative essay, bringing out the validity of their view point in a logical way. Discuss the features of argumentative essay, opening vocatives, introduction, main body, conclusion and also adequate source of information
Summary writing	Reading to pick out topic sentences in paragraphs and longer sentences	- Read the passage carefully, discuss the main ideas in the passage, identify the topic sentences in the paragraphs of the passage and re-write

			them using their own words.
5.	Speech	Words stress (monosyllabic and polysyllabic words)	- Explain word stress. Identify monosyllabic words and polysyllabic words. Give example of words and pronounce the words correctly.
	Vocabulary development	Words associated with medicine, diagnoses, hospital, nurses, doctors, clinics, treatment, etc	<ul> <li>Explain meaning of medicine, list/mention words associated with medicine and explain their meanings. Use these words in sentences.</li> </ul>
	Structure	Verb forms (participation) active and passive forms of verb	- Identify the subject and the predicate in a sentence, change active sentences to passive and vice versa. Construct more sentences in the active and passive form
	Reading comprehension	Reading for specific structural pattern: passage on scientific report or medicine	- Read the passage carefully, discuss the main ideas in the passage explain meaning of key words , answer questions on the passage. Explain and discuss the format for writing a report, identify main and supporting ideas e.g. a. Introduction; date of the experiment b. Purpose, outcome and results of the experiment c. Conclusion, write a report arranging ideas in a logical order

6	Speech	Words of five syllables stressed in the first, second, third and forth syllables e.g.	- Identify words of five syllables, recognize and articulate correctly stress timing in sentences and modulate their voice. Students should be encouraged to use their dictionaries look up stress placement in long words. Cuve more examples of their own correctly.
	Structure	Adjectives: (i) types of adjectives (ii) order of adjectives	- Explain what an adjective is. List and mention the different types of adjectives. Explain the order of adjectives. Use the adjectives in a sentence.
	Reading comprehension	Reading to para-phrase poems and dramatic works.  i. Drama; (a) theme (b) features  ii. Costume  iii. Props  iv. Performance  v. Audience  vi. Play director	- Read the dramatic work carefully, discuss the content of the dramatic work, identify the different types of drama, identify the language features, discuss the story effectively and answer questions on the passage.
	Vocabulary development	Words associated with government e.g. democracy, electoral commission, legislative, executives, etc.	- Explain the meaning of government, list/mention words associated with government and explain their meanings. Use the words correctly in sentences.
7	Speech	Words with six syllables stressed on the fifth syllable e.g	- Identify words with six syllables, recognize and pronounce the words correctly indicating the stressed syllable.

			Give more examples of their own and use the words in sentences correctly.
	Structure	Adverbs (comparison) and functions e.g. much, more, most	- Explain what an adverb is, give examples of adverb of comparison, explain their functions and use them in sentences.
	Summary writing	Reading to summarize a given passage	- Read the passage carefully, identify main points in the passage, summarise the passage in a given number of sentences.
	Continuous writing	Semi – formal letters: (1) features (2) language	- Explain what a semi- formal letter is. Explain the features of a semi-formal letter, discuss the language of semi- formal letters, discuss model semi-formal letter and write a well composed semi — formal letter. The teacher should discuss WAEC and NECO past questions extensively.
8	Speech	Intonation pattern: expressing surprise/disbelief (exclamation) example: (Ade is a witch) reality?! (Musa is a millionaire) you must be joking! (Rechard is a spy) I don't believe it (Ibrahim is dead) is he?	- Act out a dialogue simi- to the examples given
	Vocabulary development	Words associated with traveling e.g. car park, air port, journey, adventure, etc	- Explain travelling. List and mention words associated with travelling and explain their meanings. Use the words correctly in

			sentences. The teacher should also engage the students in spelling drills on words associated with travelling.
	Reading comprehension	Reading to para-phrase a poem (1) types: e.g. dirge, epic, lyric etc. (2) language; concise, unique and high	- Read the poem carefully, discuss the content of the selected poem, identify the different types of poetry, identify the language of the selected poem and answer questions on the passage using their own words
	Summary writing	Reading to summarize an argumentative passage	- Read passage carefully, identify the main point raised and the line of argument, discuss. The issues raised in the given passage and summarize the passage in a given number of sentences
9	Speech	Rising tune. E.g. 1. Will you come home tonight? 2. Can David do this, for me 3. Help me with this, please 4. Do this for me, will you?	- Point out where there should be a rise in tone in a sentence, provide enough exercise in drills and encourage vocal class participation
	Structure	Sequence of tense	- Explain tenses and sequence of tenses. Give examples in sentences correctly. Take note of the existing rules with regards to sequence of tenses
	Reading comprehension	Reading to answer questions	<ul> <li>Read a prose passages that identify different sentence</li> </ul>

			structure that reflect intonation pattern. Discuss the passage, identify main points and answer questions on the passage.
	Continuous writing	Informal letters (1) features (2) language	- Explain what an informal letter is. Explain the features of an informal letter, discuss the language of informal letter, discuss past questions (WAEC and NECO) as many as possible. Read a model informal letter and discuss it. Write a well composed informal letter.
10	Speech	Intonation pattern (falling tone: statement and other types of surfaces) e.g.  1. There will be a match at the National Stadium tomorrow  2. There will be a class quiz tomorrow evening  3. Where are you going?	- Point out to the students where there should be a fall in tone in a sentence and provide enough exercise in drills and encourage vocal class participation
	Structure	Phrasal verbs with more than one particles e.g. cut down on, get away with, stay away from, etc	- Explain what phrase verbs ar. Identify them in sentences, give examples and explain their meaning. Use the phrasal verbs in sentences.
	Vocabulary development	Words related to sports  1. Names of major national games e.g. handball, netball, polio, cricket, football, etc.  2. Words for sporting activities: tournament, cantest, championship, round, head bont etc.	- List different kinds of games played in the country, read passages in sports from national dailies or other articles, listen to a live broad cast of a major national football match or other tournament at

		<ol> <li>Venues of sports:         stadium, arena, tennis         court, boxing ring,         football field, race         course, track lane etc.</li> <li>Sports official: umpire,         coach, referee etc</li> <li>Games result: losers,         winning side, state mate,         championship etc</li> <li>Performance: an exciting         match, an uphill task, hat         trick, terrible         performance, brilliant         performance etc</li> </ol>	home, make a list of descriptive match used by the sports commentator, explain meaning of words related to sports and use them in sentences correctly
11	General revision		-
12	Examination/cl osing		-

### ENGLISH LANGUAGE SS II THIRD TERM

WEEK	TOPIC	CONTENT	ACTIVITY
1	speech comprehension	Listening comprehension: listen to speeches and other oral presentations for critical evaluation  1. Listen carefully to a given speech 2. Meaning of critical evaluation 3. Aspect of critical evaluation 4. Essence of critical evaluation 5. Listen to selected passages on critical work 6. Highlighting a. Facts b. Opinions c. deductions	Explain what is required of critical evaluation in speeches, listen to practice critical evaluation of the speeches through extensive discussion either in groups or as a whole class. Different facts from opinions in the speeches

	Structure	Introduction to clauses  1. features of a clause 2. types of clauses i. dependent ii. independent clauses	Explain what a clause is. List and explain the features of a clause. Explain the types and give examples of clauses
	Vocabulary development	Words associated with agric and horticulture e.g. livestock and domestic animals, dairy products, land, flowers, plants, farming animal disease, types of food produce, vetenary medicine farm manager	Explain agriculture and horticulture. Mention and write words associated with agriculture and horticulture. Explain their meanings and use them correctly in sentences. Teachers should encourage students to mention as many words as possible, and use them to make correct sentences and engage students in spelling drills.
2.	Speech	Listening comprehension: listening to debates for main points and passing judgment  1. Tape – recorded debates  2. Radio broadcast 3. Short debates between two selected members of the class as selected topics such as; rejection of fraud, cheating, bribery and corruption, economy etc.	Explain what a phrase is and what a clause is. Differentiate between a phrase and a clause using examples. Identify phrases and clauses in sentence
	Reading comprehension	Reading to answer question on a given passage	Read the passage carefully, identify difficult words, explain their meanings and answer questions on the passage.
	Vocabulary development	Words associated with commerce e.g. good/services,	Explain commerce. Mention words associated with commerce. Explain their

		price index, market, buyer, seller, industry etc.	meaning, engage students in spelling drills. Use the words in sentences correctly.
3	Speech	(oral) giving clear, concise and correct directions. Relevant textbooks and passages that have to do with new locations e.g. travelling to a new town, village, market, ways to cities	Explain what road sign boards are. Read posters and charts. Listen attentively to discussion in class and exchange views on the signs. Use these signs to give clear, concise and correct directions in sentences. Put these directions down in writing.
	Structure	Noun clause: types and functions. E.g.  1. Noun clause  a. Noun clause as subject  b. Noun clause object etc  2. Grammatical function	Explain Noun clause. Cite many examples. Mention and explain the different types of Noun clauses. Explain their functions and identify them in sentences and passages in reading comprehension. The teacher is advised to expose students to as many exercises as possible on noun phrases to make them conversant with the grammatical structure.
	Summary writing	Reading to summarize in a specific number of sentences	Read the passage carefully. Identify topic sentences and main ideas. Summarize in a given number of sentences.
	Continuous writing	Expository essay. E.g.  1. Explain a process 2. An idea 3. Give directions a. Features; topics such as b. How to prepare a favourite meal, societal ills and diseases	Explain expository essay. Read and discuss model expository essay. Identify features of an expository essay. Write a well composed expository essay

4	Speech	Sentence stress: emphatic stress. E.g.  JAMES borrowed the novel (James and not anybody else borrowed the novel)	Explain what emphatic stress is. Answer exercises on emphatic stress. Make sentences using emphatic stress
	Structure	Adjectival clauses:  1. Position in sentences and grammatical functions  2. Relative pronouns used to introduce Adjectival clauses. E.g. who, which, whom etc	Explain what an Adjectival clause is. Cite many examples using sentences. Engage in as many exercises as possible and state the functions. Identify Adjectival clauses in sentences and passages in reading comprehension. Make use of Adjectival clauses in sentences.
	Reading comprehension	Reading for implied meaning	Read carefully to grasp main points extract main points from the passage and write the difference between stated and implied meaning. Answer questions on the passage.
	Continuous writing	Article writing (introduction, illustration and practice)	Discuss the format for writing articles, expose students many illustrations read and discuss a mode. Discuss past questions (WAEC and NECO) on article writing. Write a well composed article
5	Speech	Consonant sounds: plosives; b/and/pl, it/and /d/, /k/ and /g/	Identify the sounds pronounce the sounds correctly, mention words with the Consonant sounds. Expose students to letters represented by these sounds, use the words where they occur in sentences. Students should be encouraged to mention as many words as possible, words with these Consonant sounds.

	Structure	adverbial clauses: types and functions	Explain what an adverbial clause is. Mention different types of adverbial clauses. Identify the adverbial clauses in sentences and passage in reading comprehension. State the functions of adverbial clauses. Use the adverbial clauses in sentences correctly.
	Reading comprehension	Reading for meaning in context	Read the passage carefully, bring out difficult words or key words, explain their meaning according to context of usage in passage substitute the words with another suitable words.  Answer questions on the passage read.
	Continuous writing	Informal letter: features and language	Explain what an Informal letter is. Explain the features and language of an Informal letter. Read and discuss a model Informal letter. Discuss past questions (WAEC and NECO) an Informal letters and write well composed Informal letter.
6	Speech	Speaking to persuade, convince and sway opinion on topics like; a. Cultism b. Population/family life education c. Environmental issues	Listen attentively to any of the topics discussed by the teacher. List key words in the discussion, identify sentences types used for persuasion and give their opinions and any of the treated topics.
	Structure	Auxiliary verbs e.g. modal Auxiliary and primary Auxiliary verbs	Explain what Auxiliary verb is. Mention and explain the types of Auxiliary verbs. Identify them in sentences and use them to construct correct sentences.

	ocabulary evelopment	Words associated with plumbing e.g. pipes, plumber, connect, plumb line, sink, tap etc.	Explain plumbing' mention words associated with plumbing. Spelling drills on words associated with plumbing. Explain the meaning of the words and use them in sentences.
	iting	Semi – formal letter  1. Features 2. Language 3. Difference between Semi – formal letter and informal letter	Explain what a Semi – formal letter is. Explain the features of a Semi – formal letter. Read a comprehension Semi – formal letter and discuss the features and context in relation to language. Differentiate between a Semi – formal letter and informal letter. Discuss WAEC and NECO past questions on Semi – formal letters. Write a well composed Semi – formal letter.
7 Sp	peech	Consonant sound; nasal: /n/, /m/ and /g/	Identify the sounds in words. Pronounce the words correctly. Mention words with the nasal sounds. Identify the letters represented by the nasal sounds, give more examples of words and use the words in sentences.
Sti	ructure	Concord (agreement between subject and verb)	Explain Concord between subject and verb in a sentences. Give examples in sentences and explain the various ways of showing Concord between subject and verb
Su	ımmary writing	Summarizing a given passage in a specific number of sentences	Read the passage carefully.  Mention and discuss the main ideas in summarise the

			passage in a specific number of sentences.
	Continuous writing	Formal letter 1. Types 2. Features of Formal letters 3. Language	Explain what a Formal letter is. Mention the various types and discuss them. List and explain the features of a Formal letter. Read a sample of a Formal letter in class. Discuss the content, features and language of a Formal letter with regards to the letter read. Discuss more past questions on Formal letters and write a well composed Formal letter. Students should be exposed to the differences between the different types of letters (formal, semi-formal, informal letter)
8	Speech	Rhymes e.g. obtain – detain	Explain rhymes, give examples of rhyming words. Engage students in pronunciation drills.
	Structure	Adjuncts	Identify Adjuncts. Explain what Adjuncts are. Give examples of Adjuncts and use them in sentences
	Continuous writing	Exposition on scientific facts	Explain Exposition and scientific facts. List and explain the features of Expository essay. Read and discuss a model Expository essay on scientific facts. Write a well composed expository essay.
	Reading comprehension	Reading to answer questions on a given passage	Read passage carefully.  Mention and discuss main ideas. Identify and explain meaning of key words. Answer questions on the passage.

	Speech	Consonants /s/and /z/, /s/ and /z/, /ts/ and /dz/	Pronounce the Consonants. Identify the Consonants in words. Identify their differences and give examples of letters represented by the sounds. Give examples of words with the Consonants and use them in sentences
	Structure	Tag questions. e.g. this is your book. Isn't it?	Identify Tag questions in sentence structures. Explain what they are. Give examples of Tag questions in sentences
	Summary writing	Using simple sentences in summary writing	Read passage carefully, identify the main points in the passage. Write out the main points using simple sentences.
	Continuous writing	Argumentative essay (debate)	Explain features of debate in writing with reference to opening vocatives, body and conclusion. Discuss debate topics and write a well composed debate.
10	Speech	Sibilants and the 's'/'es' suffixes	Identify these Sibilants. Pronounce them correctly and identify the changes in pronunciation as these suffixes are added to the root words.
	Structure	Complex, compound, compound complex sentences	Explain the different sentence structure and give examples of each.
	Reading comprehension	Reading to answer questions on a given passage	Read the passage carefully, bring out the main points and answer questions on the passage.
11	Speech	Revision of consonants	Identify the twenty-four consonants. Engage students in pronunciation drills. Give

			examples associated with the sounds.
	Structure	Idiomatic expressions e.g. under a cloud, take heart, hold your head high, etc.	Explain the meaning. Give examples of Idioms and explain their meanings and use them in sentences correctly.
	Reading comprehension	Revision on guide lines to answering comprehension exercises	Practice on reading comprehension exercise
	Summary writing	Guidelines to answering summary writing exercise.	Practice on summary writing exercise
12	General revision	General revision	General revision
13	Examination	Examination	Examination

### GENERAL MATHEMATICS SS TWO FIRST TERM

WEEK	TOPIC / CONTENT	ACTIVITIES
1	LOGARITHMS	Teacher:
	i. Revision of logarithm of	Guides students to:-
	numbers greater than one.	-Revises laws of logarithm
	ii. Characteristics of logarithm of	-Reads logarithm table and does calculation
	numbers greater than one and	involving multiplication, division, power and
	less than one and standard form	roots of numbers greater than 1.
	of numbers.	-Shows the relationship between the
	iii. Logarithm of numbers less	characteristics of logarithms and standard
	than one, multiplication, division,	form of numbers.
	power and roots.	-Calculation involving multiplication, roots of
	iv. Solution of simple logarithmic	number less than 1 and less than 1.
	equations	Students:
	v. Accuracy of results of	Study the solution chart of logarithm.
	logarithm table and calculator.	State laws of logarithm, read logarithm table
		and use logarithm table in calculation
		involving multiplication, division powers and
		roots of numbers greater than 1.
		Given a set of number, write them in
		standard forms and compare the
		characteristics of such numbers with the
		standard forms.
		Solve simple equations involving logarithms.
		Instructional Resources:

		Logarithm table, booklet, solution chart of logarithm etc flex banner showing logarithms and antilogarithm of numbers).
2	i. Rounding up and down of numbers to significant figures, decimal places and nearest whole numbers. ii. Application of approximation to everyday life. iii. Percentage error.	Teacher: Guides the students to -approximate given data to hundred, thousand, billion and trillionssolution using logarithm tables and calculator -make comparison between results obtained from solution with logarithm table and calculatorcalculate percentage errorsolve examples of approximation in schools, health sector and social environment etc. Students: Approximate to hundred, thousand, million, billion and trillion. Solve problems in approximation solve problems using logarithm table and calculatorscompare the result obtained from the two calculations. Calculate percentage error of a given instrument. Instructional Resources: Financial reports and budget population figures logarithm table, calculators data from school records, health sector, economy etc.
3	i. Simplification of fractions ii. Addition, subtraction, multiplication and division of algebraic fractions.	Teacher: Guides students to: -determining the L.C.M. of the denominators of the fraction and simplify the fractionsperform addition, subtraction, division and multiplication on the fractions. Students: Simplify a given algebraic fraction using the LCM Perform addition, subtraction, division and multiplication on algebraic fractions. Instructional Resources: Chart showing LCM, addition, subtraction, multiplication and division etc.
4	ALGEBRAIC FRACTIONS (II) i. Equation involving fractions ii. Substitution in fractions iii. Simultaneous equations involving fractions.	Teacher: Guides students to: -solve equation involving fraction -substitute for a given value in a fraction.

iv. Finding the value of unknown to make a fraction undefined.

- -solve simultaneous equation involving fractions
- -guides students to determine undefined value of a fractions.

#### Students:

Follow the procedures for solving equations involving fraction.

Perform substitution in a given fraction. Solve simultaneous equation, involving fraction.

Determine undefined value of a fraction.

#### **Instructional Resources:**

Oranges, apple, rule, sticks etc.

## 5 SEQUENCE AND SERIES 1 Arithmetic Progression (AP)

- i. Meaning of sequences indicating first term (a) common difference (d) and the n<sup>th</sup> term of an Arithmetic Progression (A.P) and calculating the n<sup>th</sup> term of an A.P.
- ii. Arithmetic mean and sum of an A.P.
- iii. Practical problem solving involving real life situation on arithmetic mean of an A.P. iv. Practical problem solving involving real life situation on sum of A.P.`

#### Teacher:

Guides students to:

- -discover the meaning and types of sequences.
- -identify examples of Arithmetic Progression (A.P.)
- -derive the formula for the n<sup>th</sup> term of an A.P. -define and use the formula for the sum of an A.P.

Gives exercises on A.P.

#### Students:

State the rule that gives a sequence.

Define and give an arithmetic progression. Participate in deriving the formula for the n<sup>th</sup> term.

Calculate the n<sup>th</sup> term and sum of an A.P. Solve problems on arithmetic progression.

#### **Instructional Resources:**

Ages of students, poles and pillars of different height, other objects of different sizes, numbers, etc.

# 6 SEQUENCE AND SERIES (II) Geometrical Progression (G.P)

- i. Meaning of Geometry Progression (G.P.) indicating first term (a), common ratio (r) and nth term of a G.P and calculation of n<sup>th</sup> term of G.P.
- ii. Geometric mean and sum of terms of G.P.
- iii. Sum of infinity of G.P.
- iv. Practical problem involving real life situation on G.P.

#### Teacher:

Guides students to:

- -define and give examples of geometric progression.
- -leads students to derive and use the formula for the n<sup>th</sup> term of a G.P, calculate the sum of G.P.

#### Students:

Define and give examples of geometric progression, participate in deriving the formula for the nth term.

Calculate the sum of G.P when n>1and n<1 Solve problems on geometric progression, including practical problems.

#### **Instructional Resources:**

		As in week 5 above.
7	i. Revision of factorization ii. Finding what should be added to an algebraic expression to make it a perfect square. iii. Quadratic equation using completing the square method. iv. Deducing the quadratic formula from completing the square and its application to solving problems.	Teacher: Revise factorization of perfect squares i.e. x²+2ax+a² as (x+a)(x+a) Leads students to realize that all perfect squares are factorizeable. Guides students in the steps involved in solving quadratic equation using completing the square method. Leads students' to deduce the completing the square method and solve some problems. Students: Expands and factorize perfect squares such as (x+3)². Use quadratic box to expand quadratic equations. Follow the teacher's examples to find constant k that makes quadratic expression a perfect square. Participate in solving quadratic equations by completing the square. Deduce quadratic formula from the method of completing squares. Instructional Resources: Quadratic equation box, completing the squares sheet
8	QUADRATIC EQUATION (II)  1. Word problem leading to quadratic equation  2. Application of quadratic equation to real life situation.	Teacher: Guide students in steps involved in the formation of quadratic equation using sum and product of roots. Transforms a word problem into quadratic equation. Obtains quadratic equation given roots of the equation using sum and product of the given roots. Transform a word problem into quadratic equation. Solve students' activities; quadratic equation formed from word problem. Attempt the exercises given with the roots supplied. Instructional Resources: As in week 7 above.
9	SIMULTANEOUS LINEAR AND QUADRATIC EQUATION (I) i. Revision of simultaneous linear equations	<b>Teacher:</b> Guides students to solve simultaneous linear equations using elimination, substitution, graphical methods.

	ii. Simultaneous linear and	-Solves linear and quadratic equation using
	quadratic equation by elimination method.	substitution method, to construct tables of values of y given the values of x.
	iii. Simultaneous linear and	-finds the solution of other related equation.
	quadratic equations by substitution method.	Students: Solve problem in simultaneous linear
	iv. Graphical method v. Word problem leading to	equation using elimination, substitution and graphical method.
	simultaneous linear and quadratic equation.	Solve simultaneous linear and quadratic equation.
		Construct tables of value.  Instructional Resources:
		Graph, chart showing how to find roots of
		graph y=ax²+bx+c. Graph board, graph book, mathematical sets.
10		
10	SIMULTANEOUS LINEAR AND QUADRATIC EQUATION (II)	Teacher: As in week 9 above
	1. Revision of linear and	Students:
	quadratic graph	As in week 9 above
	2. Simultaneous linear and	Instructional Resources:
	quadratic equations by graphical method.	As in week 9 above.
11	GRADIENT OF A CURVE	Teacher:
	<ol> <li>Revision of a straight line graph</li> </ol>	Identifies x- intercept and y- intercept of linear graph.
	2. Gradient of a straight line.	Draw the graph
	<ul><li>3. Drawing tangent to curve</li><li>4. Determination of gradient of a curve.</li></ul>	Guides students to: - discover the meaning of gradient of a line - find the gradient of a straight line.
		- form straight line equation
		-draw tangents to a curve at a given point.  Students:
		Draw a straight graph of a given function, determine the gradient, determine gradient of a straight line give -2points on the line
		A point and the gradient of the line.
		-draw tangents to a curve at a given point.  Instructional Resources:
		Graph board, graph book, ruler. (Mandatory)
12	Revisions	Revisions
13	Examinations	Examinations

# GENERAL MATHEMATICS SS 2 SECOND TERM

WEEK	TOPIC / CONTENT	ACTIVITIES
1	LOGICAL REASONING:	Teacher:
	Simple and compound statement     Logical operation and truth tables     Conditional statements and indirect proofs.	Gives collection of simple and compound statement and guides students to distinguish them.  -Leads students to construct truth table chart for each of the given logical operations.  -Guides students to state the converse, inverse and contra positive operation of a given conditional statement.  Students:  Write examples of simple and compound statements:  -construct truth table chart for each of the five logical operations -prove the converse, inverse and contra positive of a given conditional statement.  Instructional Resources:
	I NIEAD NIEGUALIEU	Truth tables.
2	LINEAR INEQUALITIES  1. Linear inequalities in one variable 2. Linear inequalities in two variables 3. Range of values of combined inequalities 4. Graph of linear inequalities in two variables. 5. Maximum and minimum values of simultaneous linear inequalities and application of linear inequalities in real life situation.	Teacher:  - Uses scale balance to introduce inequality, and illustrate further using number line.  -leads students to solve problem on inequalities in one variable and two variables.  -guides students to combine the solution of two inequalities  -guides students to construct the table of values, plot the values and highlight the region that satisfies the inequality.  -locates the highest value and the lowest value.  Students  Follow teacher illustration and find what should be added or subtracted to make the scale balance.  -combine the solutions of two inequalities -construct the table of values, plot the values, highlight the region that satisfies inequalities and locate the maximum and minimum values.  Instructional Resources:  Scale balance, number line chart, graph board, mathematical sets.
3	CHORD PROPERTIES	Teacher:

- 1. Angles suspended by a chord in a circle.
- 2. Angles subtended by chord at the centre.
- 3. Perpendicular bisectors of chords.
- 4. Angles in alternate segment
- 5. Cyclic quadrilaterals
- Leads students in constructing models to show angles subtended at the centre, perpendicular bisectors of chord and angles alternate segments.
- -leads students in carrying out the formal proof of each one.
- -leads students in solving practical problems using the models.

#### Students:

Participate in constructing models using cardboard paper

- -draw diagrams of models and write down their observations against each model -follow the teacher in deductive proof
- -solve problems using the models.

#### **Instructional Resources:**

Card board, cardboard showing chords and segments of a circle.

#### 4 CIRCLE THEOREMS

- 1. Proof of the theorem: the angle which an arc suspend at centre is twice the angle subtended at the circumference.
- 2. Proof of the theorem: the angles in same segment are equal.
- 3. Proof of the theorem: the angles in a semi-circle is one right angle.
- 4. Proof of the theorem: the opposite angles of a cyclic quadrilateral are supplementary.
- 5. Proof of the theorem: the tangent to a circle is perpendicular to the radius.

#### Teacher:

Leads students to review the format for proving Euclidean Geometry such as: Given: Required to prove: Construction, Proof, and Conclusion.

- -leads students to prove the theorem by asking them to suggest reasons why certain conclusions should hold.
- -demonstrates the solution of practical problems leading to the theorem.

#### Students:

Participate in the revision by mentioning the format along with the teacher.

- -suggest reason for the conclusions arrived at each point in the process.
- -solve problems given by the teacher.

#### **Instructional Resources:**

Models of circle theorem.

### 5 CALCULATION ON CIRCLE THEOREM

- 1. Angle at centre is twice angle at the circumference of circle
- 2. Angles in the same segments are equal.
- 3. Angles in a semi-circle is 90°
- 4. Opposite angles of a cyclic quadrilateral are supplementary (i.e. when the opposite angles are added, they give 180°)
- 5. Tangent to a circle (i.e. Radius of a circle is perpendicular to the tangent of a circle).

#### Teacher:

Leads students to construct model showing two triangles circumscribed in a circle with their base on the same segment.

- -leads the students to measure the angles on the circumference and draw the diagram that represents their model.
- -leads students to carry out the formal proof using the model to explain the steps involved.

#### Students:

Construct the models, measure, the angles on the circumference, draw the diagram and

		participate in the formal proof using inference from the drawing.  Instructional Resources: Cardboard.
6	TRIGONOMETRY (I)  1. Derivation of sine rule and its application  2. Derivation of cosine rule and its applications.	Teacher:  Shows the chart of acute and obtuse angle -leads students to use the charts to explain conventional methods of denoting vertices of triangles -guides students to match corresponding sides to the corresponding angle of the triangleleads students to identify angle 90° and proves the sine rule to arrive at the expression  a = b = c  SinA SinB SinC -applies the sine rule in solving problems -shows students cosine rule chart -guides students to derive the expression for the cosine rule and apply the rule in solving problems. E.g. (c²=a²+b²-2abCosC) and the likes  Students: Study the two charts and follow teacher's explanation on deriving the sine and the cosine ruleapply the rules in solving problem. Instructional Resources: Acute angle chart and obtuse-angled triangle chart.
7	THE RIGHT- ANGLE TRIANGLE Angles of elevation and depression.	Teacher: Guides students on how to draw angles of elevation and depression. Leads students to apply trigonometric ratio, sine and cosine rules to solve problems on angles of elevation and depression. Students: Draw the diagrams. Solve problem on angles of elevation and depression. Instructional Resources: Tree in the school compound, a student standing on a desk.
8	BEARING  1. Definition and drawing of 4 cardinal, 8 cardinal points and 16 cardinal points	Teacher: Leads students to define bearing and draw 4, 8 and 16 cardinal pointsleads students to mention the two types of bearing notation giving examples of each.

2. Notation for bearings cardinal -leads students to do exercise on writing notations N30°E, S45°N, 3 digits bearings. notations e.g. 075°, 350° etc. -quides students to represent problems on 3. Making sketches involving bearing with diagram. -leads students to use Pythagoras theorem, lengths and angles/bearing 4. Problem solving on lengths, trigonometric ratios, sine and cosine rules etc angles and bearing. to solve problems on bearing. Students: Mention the two types of notations and state their own examples -draw diagram on word problem on bearing -use the Pythagoras theorem, trigonometric ratios, sine and cosine rules to solve the problem. Instructional Resources: Charts illustrating cardinal points, ruler, pencil, protractor, computer assisted instructional resources. PROBABILITY (I) Teacher: 9 1. Throwing of dice, tossing of Leads students to examine the coin, die and coin and pack of playing cards pack of cards, identify the number of faces of 2. Theoretical and experimental the coin, die and number of cards. Ask students to throw or toss the coin/die and probability. 3. Mutually exclusive events. note the outcome. -Leads students to identify the die, the card and coin, pack of card as instruments of chance. -Teacher explains theoretical and experimental probabilities and mutually exclusive events. Students: - Examine the coin, die and pack of cards. -identify the number of faces of the coin and die and number of cards. -throw or toss die/coin and record outcome and consequently define theoretical, experimental probabilities and mutually exclusive events. Instructional Resources: Ludo, die, park of playing cards. 10 PROBABILITY (II) Teacher: i. Independent events Leads students to define mutually exclusive ii. Complementary events independent and complementary events. iii. Outcome tables -Asks students to derive other examples on iv. Tree diagram/practical those types each. application of probabilities in -leads them to evolve the rules using the health, business and population. chart.

		-to use the rule to solve problems on independent events and complementary eventsto draw questions on probability etc.  Students: Solve problems on selection with or without replacement -study and copy the derived questions and approaches relevant to probabilities in practical situationsstudents solve the derived questions.  Instructional Resources: Cut a newspaper of stock market reports. Annual reports of shares, published statistics on capital market.
11	Revisions	Revisions
12	Examinations	Examinations
13	Examinations	Examinations

### GENERAL MATHEMATICS SS 2 THIRD TERM

WEEK	TOPIC / CONTENT	ACTIVITIES
1	STATISTICS I	Teacher:
	Meaning and computation of	Revises mean, median, mode of set of
	mean, median and mode of	numbers with students.
	ungrouped /discrete data	-leads students to calculate mean, mode of
	2. Explain meaning of dispersion	ungrouped frequency tables manually and
	and define-range, variance and	with calculator.
	standard deviation for ungrouped	-On computation of these measures
	data.	-determine class boundaries, class interval,
	3. Presentation of grouped	mid-value etc.
	figures	Students:
	4. Class interval	Revise measures of central tendency
	5. Determination of class	calculate mean, median, mode under
	boundaries from class interval	supervision of teacher.
	and class mark.	-write scores of 50 students
		-appreciate need for grouping
		-calculate class boundaries, class interval
		and class mark.
		Instructional Resources:
		Ages of students, poles of different height,
		different objects, and score chart showing
		grouped frequency table.
2	STATISTICS (II)	Teacher:
	Grouped data (drawing and	Asks students to suggest and write possible
	reading of histogram)	scores of 50 students in mathematics

		-leads students to see need for grouping -constructs grouped frequency table using specified intervals Teaches the steps for calculating class boundaries, class interval and class mark.  Students: - Suggest and write scores of 50 students and record the scoresappreciate need for grouping -calculate class boundaries, class internal and class marks.  Instructional Resources: Poles of different heights, ages of large number of students, prices of goods in the market, objects etc.
3	STATISTICS (III) Massura of	Teacher:
3	STATISTICS (III) Measure of Central Tendency  1. Mean of grouped data 2. Median of grouped data 3. Mode of grouped data	Shows score charts that will lead to grouped frequency distribution to the studentsguides students to identify the highest and lowest marks and construct class interval -constructs grouped frequency table by using class interval calculates the mean, median, mode of grouped data.  Students: Study the score charts, -identify the highest and lowest score -follow the teacher's guide to calculate the grouped frequency table.  Instructional Resources: Score chart containing marks of 50 students in a class ranging from 5 to 92, computer will be relevant software.
4	STATISTCIS (IV) Measures of	Teacher:
	dispersion  1. Mean deviation of grouped data  2. Standard deviation of grouped data.  3. Variance of grouped data and range  4. Calculation of standard deviation by using assumed or working mean (A).	Explains concept of variability or dispersion to the studentsleads students on computation of these measuressolves problems -explains terms including secondary market transaction.  Note: (The Secondary market also known as the aftermarket, is the financial market where previously issued securities and financial instruments such as stock, bonds, debentures are bought and sold)  Students: Solve problems with the help of the teacher in groups, identify areas of application.  Instructional Resources:

		Posters containing some data from published
		statistics.
		Posters showing areas of application of
		measure of dispersion.
5	CUMULATIVE FREQUENCY I	Teacher:
	i. Construction of cumulative	Suggests 30 quantitative values less than
	frequency table to include class	100. Writes down the values on board, leads
	intervals, tally, frequencies, class boundaries.	students to construct cumulative frequency tables.
	ii. Drawing of histogram and	constructs class boundaries of the
	frequency polygon	cumulative frequency curve.
	iii. Deduce frequency polygon	-draws the cumulative frequency curve using
	from histogram	the upper class boundaries and the
	iv. Drawing of frequency polygon	cumulative frequencies
	using mid-value and the	-draws histogram and read from the graph.
	frequency.	Students:
	v. Review of (i-iv) by engaging the students with various class	Suggests values to teacher
	work.	-copy suggested values -construct grouped frequency table
	WOIK.	-construct cumulative frequency under
		teacher's supervision
		Instructional Resources:
		Cumulative frequency curve chart, graph
		board, graph book, pencil etc. (graph board
		is mandatory)
1		
6	CUMULATIVE FREQUENCY II	Teacher:
6	1. Cumulative frequency	Guides students to plot the points of class
6	<ol> <li>Cumulative frequency curve (ogive) or of graph</li> </ol>	Guides students to plot the points of class boundaries and cumulative frequency on the
6	<ol> <li>Cumulative frequency curve (ogive) or of graph</li> <li>Plotting of cumulative</li> </ol>	Guides students to plot the points of class boundaries and cumulative frequency on the graph.
6	<ol> <li>Cumulative frequency curve (ogive) or of graph</li> <li>Plotting of cumulative frequency curve/graph</li> </ol>	Guides students to plot the points of class boundaries and cumulative frequency on the graph.  -Uses free hands to join the points.
6	<ol> <li>Cumulative frequency curve (ogive) or of graph</li> <li>Plotting of cumulative frequency curve/graph (ogive)</li> </ol>	Guides students to plot the points of class boundaries and cumulative frequency on the graph.  -Uses free hands to join the pointsshows students various ways of locating the
6	<ol> <li>Cumulative frequency curve (ogive) or of graph</li> <li>Plotting of cumulative frequency curve/graph</li> </ol>	Guides students to plot the points of class boundaries and cumulative frequency on the graph.  -Uses free hands to join the points.
6	<ol> <li>Cumulative frequency curve (ogive) or of graph</li> <li>Plotting of cumulative frequency curve/graph (ogive)</li> <li>Definition of median,</li> </ol>	Guides students to plot the points of class boundaries and cumulative frequency on the graph.  -Uses free hands to join the pointsshows students various ways of locating the points -guides students to read quartiles, percentiles, deciles from the ogive
6	<ol> <li>Cumulative frequency curve (ogive) or of graph</li> <li>Plotting of cumulative frequency curve/graph (ogive)</li> <li>Definition of median, quartiles, percentiles</li> <li>Using the curved to find median, quartiles</li> </ol>	Guides students to plot the points of class boundaries and cumulative frequency on the graph.  -Uses free hands to join the pointsshows students various ways of locating the points -guides students to read quartiles, percentiles, deciles from the ogive  Students:
6	<ol> <li>Cumulative frequency curve (ogive) or of graph</li> <li>Plotting of cumulative frequency curve/graph (ogive)</li> <li>Definition of median, quartiles, percentiles</li> <li>Using the curved to find median, quartiles interquartile range</li> </ol>	Guides students to plot the points of class boundaries and cumulative frequency on the graph.  -Uses free hands to join the pointsshows students various ways of locating the points -guides students to read quartiles, percentiles, deciles from the ogive  Students: -plot points o the graph with teacher's
6	<ol> <li>Cumulative frequency curve (ogive) or of graph</li> <li>Plotting of cumulative frequency curve/graph (ogive)</li> <li>Definition of median, quartiles, percentiles</li> <li>Using the curved to find median, quartiles interquartile range (quarter) and semi-</li> </ol>	Guides students to plot the points of class boundaries and cumulative frequency on the graph.  -Uses free hands to join the pointsshows students various ways of locating the points -guides students to read quartiles, percentiles, deciles from the ogive  Students: -plot points o the graph with teacher's supervision.
6	<ol> <li>Cumulative frequency curve (ogive) or of graph</li> <li>Plotting of cumulative frequency curve/graph (ogive)</li> <li>Definition of median, quartiles, percentiles</li> <li>Using the curved to find median, quartiles interquartile range (quarter) and semi-interquartile range</li> </ol>	Guides students to plot the points of class boundaries and cumulative frequency on the graph.  -Uses free hands to join the pointsshows students various ways of locating the points -guides students to read quartiles, percentiles, deciles from the ogive  Students: -plot points o the graph with teacher's supervisionjoin points together to have the graph,
6	<ol> <li>Cumulative frequency curve (ogive) or of graph</li> <li>Plotting of cumulative frequency curve/graph (ogive)</li> <li>Definition of median, quartiles, percentiles</li> <li>Using the curved to find median, quartiles interquartile range (quarter) and semi-</li> </ol>	Guides students to plot the points of class boundaries and cumulative frequency on the graph.  -Uses free hands to join the pointsshows students various ways of locating the points -guides students to read quartiles, percentiles, deciles from the ogive  Students: -plot points o the graph with teacher's supervisionjoin points together to have the graph, determine, median, deciles, quartiles and
6	<ol> <li>Cumulative frequency curve (ogive) or of graph</li> <li>Plotting of cumulative frequency curve/graph (ogive)</li> <li>Definition of median, quartiles, percentiles</li> <li>Using the curved to find median, quartiles interquartile range (quarter) and semi-interquartile range</li> </ol>	Guides students to plot the points of class boundaries and cumulative frequency on the graph.  -Uses free hands to join the pointsshows students various ways of locating the points -guides students to read quartiles, percentiles, deciles from the ogive  Students: -plot points o the graph with teacher's supervisionjoin points together to have the graph,
6	<ol> <li>Cumulative frequency curve (ogive) or of graph</li> <li>Plotting of cumulative frequency curve/graph (ogive)</li> <li>Definition of median, quartiles, percentiles</li> <li>Using the curved to find median, quartiles interquartile range (quarter) and semi-interquartile range (quartile deviation).</li> </ol>	Guides students to plot the points of class boundaries and cumulative frequency on the graph.  -Uses free hands to join the pointsshows students various ways of locating the points -guides students to read quartiles, percentiles, deciles from the ogive  Students: -plot points o the graph with teacher's supervisionjoin points together to have the graph, determine, median, deciles, quartiles and percentiles from the graph (ogive)  Instructional Resources: Graph board, graph book, pencil etc.
7	<ol> <li>Cumulative frequency curve (ogive) or of graph</li> <li>Plotting of cumulative frequency curve/graph (ogive)</li> <li>Definition of median, quartiles, percentiles</li> <li>Using the curved to find median, quartile range (quarter) and semi-interquartile range (quartile deviation).</li> </ol> CUMULATIVE FREQUENCY III	Guides students to plot the points of class boundaries and cumulative frequency on the graph.  -Uses free hands to join the pointsshows students various ways of locating the points -guides students to read quartiles, percentiles, deciles from the ogive  Students: -plot points o the graph with teacher's supervisionjoin points together to have the graph, determine, median, deciles, quartiles and percentiles from the graph (ogive)  Instructional Resources: Graph board, graph book, pencil etc.  Teacher:
	1. Cumulative frequency curve (ogive) or of graph 2. Plotting of cumulative frequency curve/graph (ogive) 3. Definition of median, quartiles, percentiles 4. Using the curved to find median, quartiles interquartile range (quarter) and semi-interquartile range (quartile deviation).  CUMULATIVE FREQUENCY III i. Meaning of deciles	Guides students to plot the points of class boundaries and cumulative frequency on the graph.  -Uses free hands to join the pointsshows students various ways of locating the points -guides students to read quartiles, percentiles, deciles from the ogive  Students: -plot points o the graph with teacher's supervisionjoin points together to have the graph, determine, median, deciles, quartiles and percentiles from the graph (ogive)  Instructional Resources: Graph board, graph book, pencil etc.  Teacher: Guides students to calculate deciles,
	1. Cumulative frequency curve (ogive) or of graph 2. Plotting of cumulative frequency curve/graph (ogive) 3. Definition of median, quartiles, percentiles 4. Using the curved to find median, quartiles interquartile range (quarter) and semi-interquartile range (quartile deviation).  CUMULATIVE FREQUENCY III  i. Meaning of deciles ii. Examples showing median	Guides students to plot the points of class boundaries and cumulative frequency on the graph.  -Uses free hands to join the pointsshows students various ways of locating the points -guides students to read quartiles, percentiles, deciles from the ogive  Students: -plot points o the graph with teacher's supervisionjoin points together to have the graph, determine, median, deciles, quartiles and percentiles from the graph (ogive)  Instructional Resources:  Graph board, graph book, pencil etc.  Teacher:  Guides students to calculate deciles, quartiles by formula.
	1. Cumulative frequency curve (ogive) or of graph 2. Plotting of cumulative frequency curve/graph (ogive) 3. Definition of median, quartiles, percentiles 4. Using the curved to find median, quartiles interquartile range (quarter) and semilinterquartile range (quartile deviation).  CUMULATIVE FREQUENCY III i. Meaning of deciles ii. Examples showing median and quartiles from graph	Guides students to plot the points of class boundaries and cumulative frequency on the graph.  -Uses free hands to join the pointsshows students various ways of locating the points -guides students to read quartiles, percentiles, deciles from the ogive  Students: -plot points o the graph with teacher's supervisionjoin points together to have the graph, determine, median, deciles, quartiles and percentiles from the graph (ogive)  Instructional Resources: Graph board, graph book, pencil etc.  Teacher: Guides students to calculate deciles, quartiles by formulareads the values from the graph by writing
	1. Cumulative frequency curve (ogive) or of graph 2. Plotting of cumulative frequency curve/graph (ogive) 3. Definition of median, quartiles, percentiles 4. Using the curved to find median, quartiles interquartile range (quarter) and semi-interquartile range (quartile deviation).  CUMULATIVE FREQUENCY III i. Meaning of deciles ii. Examples showing median and quartiles from graph iii. More examples on	Guides students to plot the points of class boundaries and cumulative frequency on the graph.  -Uses free hands to join the pointsshows students various ways of locating the points -guides students to read quartiles, percentiles, deciles from the ogive  Students: -plot points o the graph with teacher's supervisionjoin points together to have the graph, determine, median, deciles, quartiles and percentiles from the graph (ogive)  Instructional Resources: Graph board, graph book, pencil etc.  Teacher: Guides students to calculate deciles, quartiles by formulareads the values from the graph by writing the y – axis and x-axis.
	1. Cumulative frequency curve (ogive) or of graph 2. Plotting of cumulative frequency curve/graph (ogive) 3. Definition of median, quartiles, percentiles 4. Using the curved to find median, quartiles interquartile range (quarter) and semilinterquartile range (quartile deviation).  CUMULATIVE FREQUENCY III i. Meaning of deciles ii. Examples showing median and quartiles from graph	Guides students to plot the points of class boundaries and cumulative frequency on the graph.  -Uses free hands to join the pointsshows students various ways of locating the points -guides students to read quartiles, percentiles, deciles from the ogive  Students: -plot points o the graph with teacher's supervisionjoin points together to have the graph, determine, median, deciles, quartiles and percentiles from the graph (ogive)  Instructional Resources: Graph board, graph book, pencil etc.  Teacher: Guides students to calculate deciles, quartiles by formulareads the values from the graph by writing

8	CUMULATIVE FREQUENCY IV  1. Explain the meaning of median on a cumulative frequency curve, percentiles, quartiles, deciles.  2. Determination of median, deciles, quartiles and percentiles, by formula method.	Calculate deciles, quartiles, percentiles, decile etc.  Instructional Resources: Graph board, graph book.  Teacher: Leads students to define median from cumulative frequency curve, deciles, quartiles and percentilesguides students to draw Ogives of data and make interpretation -calculates the mean, median and the mode of the grouped frequency table manually.  Students: Calculate class boundaries
		-plot cumulative frequency curves in graph paper, follow steps for estimated median, quartiles and percentiles from the graph under teacher's supervision.  Instructional Resources:  Graph board, graph book, ruler, pencil, published charts of cumulative frequency curve. Data from capital market, stock market used in previous lessons.
9	i. Rational and irrational numbers revision showing examples of surd. ii. Simplification of surds iii. Addition and subtraction of surds (stating the rule that guides addition and subtraction of similar surds) iv. Multiplication and division of surds to include rationalization.	Teacher: Guides students to: -differentiate between rational and irrational numbersdefines surds -performs the operations of addition and subtraction on surds -conjugates binomial surds using the idea of difference of two squares.  Students: Differentiate between rational and irrational numbers leading to the definition of surds -perform and solve problems on addition, subtraction, multiplication and division of surdsverify the rules of the operation of mathematical operations -apply the principles. Instructional Resources: Charts showing addition, subtraction, multiplication, division and conjugate.
10	i. Conjugate of binomial surds. ii. Simplification of surds including difference of two squares in the denominator.	<b>Teacher:</b> Guides students to conjugate binomial surds using the idea of difference of two squares. Leads students to appreciate the application of surds to trigonometric ratios e.g. $\sin 60^{\circ} = \sqrt{3}/2$

	iii. Application to solving triangles involving trigonometric ratio of special angles 30°, 60° and 45°. iv. Evaluation of expression involving surds.	sin 45° = 1/√2 etc.  Students:  Apply the principles of difference of two squares to the conjugate of surds expressions.  -relate surds to trigonometric ratios.  Instructional Resources:  As in week 9 above.
11	Revisions	Revisions
12	Examinations	Examinations
13	Examinations	Examinations

## CIVIC EDUCATION SS 2 FIRST TERM

WEEK	TOPIC/ CONTENT	ACTIVITIES
1	CITIZENSHIP EDUCATION	Teacher: Define citizenship education.
	i. Meaning/definition of	Mention the duties and obligation of citizens
	citizenship	to their communities.
	Education, duties and	Students: Dramatize their duties and
	obligations of citizens	obligations as citizens to the communities.
	ii. Identify and describe	
	duties and	
	obligations of citizens to their communities.	
2	CITIZENSHIP EDUCATION	Teacher: Demonstrate skills necessary for
	(CONT.)	preservation of traditions, customs, beliefs
	i. List the skills required	etc. list and explain what promotes national
	for the promotion of	consciousness, integrity and unity.
	our tradition, beliefs	and an analysis
	etc.	
	ii. National	
	consciousness,	
	national integrity and	
	unity	
3	CAPITALIST DEMOCRACY	Teacher: Explain the meaning of capitalist
	<ul> <li>Meaning and definition</li> </ul>	democracy and its characteristics. Lead the
	of capitalist democracy	students in seeing how political parties
	<ul> <li>Characteristics of</li> </ul>	compete for power.
	capitalist democracy	
	<ul> <li>Competition for power</li> </ul>	
	among political parties.	
4	CAPITALIST DEMOCRACY	Teacher: Explain to the students how
	CNTINUED	employment can alleviate poverty. Explain
	- Importance of	the importance of responsible governance
	employment in	and popular participation in promoting
	alleviating poverty as	guaranteed employment etc.

	factors in capitalist	
	democracy	
	<ul> <li>Factors which promote</li> </ul>	
	and guarantee	
	employment e.g. free	
	education, medical care,	
	and popular	
	participation.	
5	APATHY	Teacher: Define meaning of apathy and
	i. Meaning of political	explain its forms. Explain reasons for
	apathy and forms of	political apathy.
	political apathy	
	ii. Reasons for political	
	apathy e.g. bad	
	governance,	
	unfulfilled political	
	promises, rigging etc.	
6	REASONS AND EFFECTS OF	Teacher: Explain why leaders fail to protect
	LEADERSHIP FAILURE TO	their followers' interest
	THEIR FOLLOWERS	The followers interest
	i. Reasons for	
	leadership failures	
	•	
	ii. Effects of leadership failure	
7	POPULAR PARTICIPATION	Tanahari Dafina the magning of nanular
1		Teacher: Define the meaning of popular
	i. Meaning/definition of popular	participation. Give reasons why people do
	participation	not participate. Demonstrate how popular
	ii. Reasons why people do not	organizations are formed.
	participate in politics –	
	economics, obstacles,	
	discriminations, illiteracy etc.	
	iii. Describe how	
	popular organisations	
	are formed.	
	LUINAAN DIGUETO	
8	HUMAN RIGHTS	Teacher: Explain the meaning and
	i. Meaning/definition of	characteristics of human rights. Give some
	human rights	examples of human rights limitation.
	ii. Characteristics and	Describe what happens during emergency.
	categories of human	
	rights	
	iii. Limitations of human	
	rights	
	iv. Limitation of	
	movement and lack	
	of freedom of	
	speech.	
9	HUMAN TRAFFICKING	Teacher: Explain the meaning of human
	<ul> <li>Meaning/definition of</li> </ul>	trafficking. Mention the causes of human
	human trafficking	trafficking
1		

	<ul> <li>Causes of human trafficking.</li> </ul>	
10	HUMAN TRAFFICKING CONTINUED - Effects and consequences of human trafficking - Roles of government efforts to stop Human trafficking – enactment of laws etc	Teacher: Identify the effects and consequences of human trafficking.  Mention the efforts of government in stopping trafficking.
11	HUMAN TRAFFICKING CONTINUED  i. Roles of social organisations efforts to stop Human trafficking e.g. NAPTIP, WATCLEF etc ii. Roles of organisations and individuals to stop trafficking.	Arrange a visit to some social organisation centres or rehabilitation centres.
12	Revision	Revision
13	Examination	Examination

# CIVIC EDUCATION SS 2 SECOND TERM

WEEK	TOPIC/ CONTENT	ACTIVITIES
1	INTERPERSONAL RELATIONS  i. Meaning/definition of interpersonal relationships, individuals, state and international relationships.	Teacher:  i. Explain the meaning of interpersonal relationships.  ii. Mention types of interpersonal relationship e.g. relationship between man and woman
2	INTERPERSONAL RELATIONS  i. Types of interpersonal relationship  ii. Skills that promote interpersonal relationship	Teacher:  i. Identify the relationships that exist.  ii. State skills that promote interpersonal relationships

	1			
3	INTER-C	OMMUNAL	Teacher:	
	RELATIC		i.	Define inter-communal
	i.	Meaning/definition of		relationship
		inter-communal	ii.	Lead students to state the
		relationships		importance inter-communal
	ii.	Importance of inter-		relationship
		communal	iii.	Resource person to explain the
		relationship e.g.		different skills in resolving inter-
		promote		communal conflicts.
		development		
	iii.	Skills for resolving		
		inter-communal		
		conflicts – e.g. dialogue, mediation.		
4	DRUG AI		Teacher:	
	i.	Meaning and types of	i.	Explain Meaning and types of
		drug abuse		drug abuse
	ii.	Symptoms of drug	ii.	Identify symptoms of drug abuse
		abuse e.g. violence,	iii.	Show pictures of symptoms of
		depression etc.		drug abuse
	iii.	Prevention of drug	iv.	Illustrate ways of preventing drug
	55.10.4	abuse		abuse
5	_	BUSE CONTINUED		Bring resource person from drug
	i.	Government agencies that are		ent agency e.g. NDLEA. Explain gainst drug abuse.
		working to prevent	lile law a	gainst drug abuse.
		drug abuse e.g.		
		NDLEA, NAFDAC etc		
	ii.	Activities of drug		
		enforcement		
		agencies e.g. burning		
		of fake drugs or		
	District	of fake drugs or expired drugs.	· ·	
6		of fake drugs or expired drugs. SERVICE		Explain the meaning of public
6	PUBLIC S	of fake drugs or expired drugs. SERVICE Meaning and	service. N	Mention and explain the
6		of fake drugs or expired drugs. SERVICE Meaning and definition of public	service. N	·
6	i.	of fake drugs or expired drugs. SERVICE Meaning and definition of public service	service. N	Mention and explain the
6		of fake drugs or expired drugs. SERVICE Meaning and definition of public service Characteristics of	service. N	Mention and explain the
6	i.	of fake drugs or expired drugs. SERVICE Meaning and definition of public service	service. N	Mention and explain the
7	i. ii.	of fake drugs or expired drugs. SERVICE Meaning and definition of public service Characteristics of	service. N character	Mention and explain the
	i. ii.	of fake drugs or expired drugs. SERVICE Meaning and definition of public service Characteristics of public service. SERVICE	service. No character  Teacher: coming in	Mention and explain the ristics of public service.  Identify reasons for the short at the public service.
	i. ii. PUBLIC :	of fake drugs or expired drugs.  SERVICE  Meaning and definition of public service  Characteristics of public service.  SERVICE  JED  Reasons for the short	service. No character  Teacher: coming in	Mention and explain the ristics of public service.  Identify reasons for the short
	i. ii. PUBLIC S CONTINI	of fake drugs or expired drugs. SERVICE Meaning and definition of public service Characteristics of public service. SERVICE JED Reasons for the short coming in the public	service. No character  Teacher: coming in	Mention and explain the ristics of public service.  Identify reasons for the short at the public service.
	i. ii. PUBLIC S CONTINI	of fake drugs or expired drugs. SERVICE Meaning and definition of public service Characteristics of public service. SERVICE JED Reasons for the short coming in the public service e.g. colonial	service. No character  Teacher: coming in	Mention and explain the ristics of public service.  Identify reasons for the short the public service. Mention ways
	i. ii. PUBLIC S CONTINI	of fake drugs or expired drugs. SERVICE Meaning and definition of public service Characteristics of public service. SERVICE JED Reasons for the short coming in the public	service. No character  Teacher: coming in	Mention and explain the ristics of public service.  Identify reasons for the short the public service. Mention ways

8	RESPONSIBLE PARENTHOOD  i. Meaning and definition of parenthood ii. Roles of responsible parenthood	Teacher: Explain and define parenthood. Explain the roles of responsible parents e.g. providing for household needs, caring, education, good home training etc.
9	RESPONSIBLE PARENTHOOD  - Importance of responsible parenthood. E.g. responsible citizenry, reduction in crime rate, healthy nation etc.	Teacher: Lead the students in enumerating the importance of responsible parenthood
10	i. Meaning of traffic regulation ii. Traffic regulations e.g. obeying traffic officials and signs, avoiding over speeding.	Teacher: Explain the meaning of traffic regulations. Identify some traffic regulations to the students.
11	TRAFFIC REGULATION CONTINUED Roles of individuals and government in maintaining traffic regulation e.g. FRSC.	Teacher: Invite a resource person to explain the roles of individuals and government in maintaining traffic regulations.
12	Revision	Revision
13	Examination	Examination

# CIVIC EDUCATION SS 2 THIRD TERM

WEEK	TOPIC/ CONTENT	ACTIVITIES
1	HUMAN RIGHTS Meaning/definition of Human rights	Teacher: Define Human Rights
2	HUMAN RIGHTS Characteristics of Human Rights e.g. universality of Human rights, inalienability of Human rights etc.	Teacher: Mention the characteristics of human rights. Invite a resource person to discuss with the students in the human rights.
3	HUMAN RIGHTS Categories of Human right e.g. civic and political rights, economic and social rights, environmental rights.	Teacher: Identify the categories of Human Rights.
4	FIGHTING POLITICAL APATHY Meaning and definition of political apathy and characteristics	Teacher: Explain political apathy.  Mention various characteristics of political apathy.
5	FIGHTING POLITICAL APATHY CONT. Ways of fighting apathy e.g. knowing and defending our rights, participation in elections, joining popular organisations.	Teacher: explain ways of fighting political apathy.
6	PUBLIC SERVICE Meaning/definition of public service.	Teacher: Explain the meaning of public service. Mention and explain the characteristics of public service.
7	WAYS OF IMPROVING THE PUBLIC SERVICE IN NIGERIA.  i. Recourse and training programme ii. Teaching of political education in schools iii. Use of code of conduct bureau and public complaint commission.	Teacher: Invite a resource person to discuss about code of conduct to the students
8	CIVIL SOCIETY  Meaning and definition of civil society	Teacher: Explain and define the meaning of civil society.
9	CIVIL SOCIETY CONTINUED Functions and needs for civil society.	Teacher: Identify some qualities and problems of civil society.
10	CIVIL SOCIETY CONTINUED  Qualities and problems of Civil  Society	Teacher: Explain and define the meaning of civil society.

11	POPULAR PARTICIPATION Meaning/definition of popular participation	Teacher: Explain the meaning of popular participation.
12	Revision	Revision
13	Examination	Examination

## ASŲSŲ IGBO SS TWO TAM NKE MBŲ

IZUŲKA	ISIOKWU / NDĮNISIOKWU	IHE OMUME NA NGWA NKŲZI
1.	UTOASUSU: Ekwumekwu: Nkowa ihe bu ubiam na aguu, ihe ndi na-ebute ha OMENALA: Nkowa ihe bu otu nzuzo na udi ya gasi n'ala Igbo AGUMAGU: Agumagu Odinala – Mmughari nkenudi ya	IHE UMUAKWUKWO GA-EME:  1. Ige nti 2. Ikowa ihe ubiam putara na ihe ndi na-ebute ya 3. Ikparitauka gbanyere ihe ndi na-ebute ubiam na aguu. 4. Ikwu ihe bu otu nzuzo na udi ya gasi 5. Ikowa agumagu odinala 6. Ikwuputa nkenudi agumagu odinala NGWA NKUZI Akwukwo ogugu, ugbo ojii, kaadi mgbubam, umuaka n'onwe ha,dgz.
2.	UTOASUSU: Ekwumekwu: Uzo di iche iche a ga-esi gbochie ubiam na aguu.  OMENALA: Omumu ndiiche di n'otu nzuzo na otu nkiti.  AGUMAGU: Omumu Akuko Ifo: Mbido na uru ya, iko otu akuko na klasi tinyere ihe mmuta ya.	IHE UMUAKWUKWO GA-EME:  1. Ige nti 2. Ikparitauka gbasara uzo a ga-esi gbochie aguu na ubia 3. Ikwuputa ndiiche ato di n'etiti otu nkiti na nke nzuzo e nwere ike isi 4. Iko otu akuko ifo na ikwu ihe mmuta so ya 1. Ideputa uru ato di n'iko akuko ifo  NGWA NKUZI

3. **UTOASUSU:** Nkowa Edemede Leta na Udi Ya – Nkeonye na anamachoihe

**OMENALA:** Omumu "Ekpe" na "Mmonwu", Obuba ha, oru na oghom ha

**AGUMAGŲ:** Ogugų na Ntule Akuko ifo odinala abuo sitere n'akwukwo a hoputara

4. **UTOASUSU :** Nkowa Usoro Edemede Leta Nkeonye na odide otu

**OMENALA**: Omumu Omaba na Odo. Uzo e si aba ha, uru na oghom ha.

**AGUMAGU:** Ogugu na ntule abu odinala abuo sitere n'akwukwo a hoputara

5. **UTOASUSU:** Nkowa Usoro Edemede Leta Anamachoihe na Odide Otu

**OMENALA:** Mgbanwe Dị n'Otu

Nzuzo Ugbu a

**AGUMAGŲ:** Ogugų na Ntule Ejije Odinala sitere n'akwukwo a hoputara

6.

**UTOASUSU:** Olilo Udaume, Nkowa, udi ya di iche iche na omumaatu ha.

OMENALA: Omumu ihe bu dibia

Ųgbo ojii, akwukwo ogugu, tepu rekoda, chaati, kaadi mgbubam, foto/eserese, dgz.

#### IHE UMUAKWUKWO GA-EME:

- 1. Ige nti
- 2. Ide otu edemede leta
- 3. Įkowa uzo e si aba ekpe na mmonwu
- 4. Ikwuputa oru, uru na oghom di n'iba mmonwu
- 5. |gu na itule akuko ifo ha guru NGWA NKUZI

Akwukwo abu a hooro chaati, akwukwo ogugu, ugbo ojii, dgz.

#### **IHE UMUAKWUKWO GA-EME:**

- 1. Ige nti
- 2. Ideputa otu leta nkeonye
- 3. Ikwu ihe bụ omoba na odo
- 4. Ikowaputa uzo e si aba ha
- 5. Ikwu uru na oghom di obuba ha
- 6. Igu na itule otu abu odinala a hoputara

#### **NGWA NKŲZI**

Akwukwo ogugu, akwukwo abu a hooro, ugbo ojii, tiivi, redio, tepurekoda, dgz.

#### **IHE UMUAKWUKWO GA-EME**

- 1. Ige nti
- 2. Ideputa otu edemede leta anamachoihe
- 3. Ikwuputa mgbanwe na-abata n'otu nzuzo ugbu a
- 3. Igu na itule ejije odinala

#### **NGWA NKUZI**

Akwukwo ogugu klasi, akwukwo ejije a hooro, ugbo ojii, foto/eserese

#### **IHE UMUAKWUKWO GA-EME**

- 1. Ige nti
- 2. Ikowa olilo udaume
- 3. Ikwuputa udi olilo e nwere na

odinala na udi ya di iche iche, omumu etu e si abu dibia odinala.

**AGUMAGU:** Ogugu abu ededere Abuo a hoputara na nnyocha ya.

inye omumaatu ha gasi

- 4. İkowa dibia odinala, udi ya na etu e si abu ya
- 5. İgu na inyocha abu ederede a hoputara.

#### **NGWA NKŲZI**

Akwukwo oguguklasi, akwukwo abu, ugbo ojii, kaadi mgbubam, foto/eserese, dgz.

7.

ŲTOASŲSŲ: Olilo udaumeOmumu Olilo ihu na olilo azu
OMENALA: Dibia Mkpaakwukwo/
Mgborogwu, Dibia Ogwu/Nsi, Oke
dibia: Oru ha, Uru ha na Oghom di
na ha.

**AGŲMAGŲ:** Ogugų Akwukwo Iduuazi a hoputara.

**IHE UMUAKWUKWO GA-EME** 

- 1. Ige nti
- 2. Igosiputa udi olulo e nwere
- 3. İkowaputa ndi iche di n'etiti udi ndi dibia e nwegasiri
- 4. Ikwu ọrụ, uru na ọghọm dị n'ibu dibia
- 5. Įgų akwųkwo iduuazį a hoputara.

#### **NGWA NKŲZI**

Akwukwo ogugu na akwukwo iduuazi, ugbo ojii, kaadi mgbubam, dgz.

8.

**ŲTOASŲSŲ:** Omumų Udaume -Omumų Olilo nlofo, mmako na nlocha

**OMENALA:** Omumu Dibia afa na Dibia aja, Oru ha, uru na oghom ha.

**AGŲMAGŲ:** Ogugų akwukwo iduuazį a hoputara.

IHE ŲMŲAKWŲKWO GA-EME

- 1. Ige nti
- 2. İkowaputa ndiiche di n'etiti udi olulo ndi e nwere
- 3. Irugosi ha n'ahiriokwu
- 4. Ikowa dibia afa na aia
- 5. Ikwu oru, uru na oghom ha
- 6. Įgų akwųkwo iduuazį a hoputara

#### **NGWA NKŲZI**

Akwukwo ogugu na akwukwo iduuazi a hooro, ugbo ojii, kaadi mgbubam, dgz.

9.

UTOASUSU: Omumu Ndapu Udaume na Ndapu Mgbochiume OMENALA: Ntule Dibia Odinala na Dibia Bekee, Ndiiche di na ha. AGUMAGU: Ogugu na Nchikota otu abu sitere n'akwukwo abu a hoputara.

#### **IHE UMUAKWUKWO GA-EME:**

- 1. Ige nti
- 2. ļrugosi okwu/ahiriokwu nwere ndapu udaume na mgbochiume
- 3. Įkowaputa ndiiche abuo di na dibia bekee na nke odinala
- Iguputa otu abu sitere n'akwukwo a hoputara NGWA NKUZI

10.		Chaati udaume/mgbochiume, akwukwo ogugu klasi, akwukwo abu, dgz
11.	UTOASUSU: Omumu Fonim na Mofim; Omumu udi Mofim di iche iche (mofim ndabe na nnooroonwe).  OMENALA: Akunuba ndi Igbo, nkowa na udi ihe enwe enwe AGUMAGU: Ogugu Akwukwo Ejije a hoputara	IHE UMUAKWUKWO GA-EME:  1. Ige nti 2. Ikowa mofim na inye omumaatu ha 3. Ikowa ihe bu akunuba na inye omumaatu udi ihe enwe enwe di iche iche 1. Iguputa akwukwo ejije a hooro.  NGWA NKUZI  Akwukwo ogugu klasi, akwukwo ejije a hooro, tepurekoda, redio, dgz.
12.	<ul> <li>ŲTOASŲSŲ: Omumu</li> <li>mkpuruokwu – Nkowa</li> <li>mkpuruokwu, nkuzi ndiiche di</li> <li>n'etiti mofim na mkpuruokwu.</li> <li>OMENALA: Enwemenwe</li> <li>Akunuba – Uru na Oghom di</li> <li>n'ikpata aku n'uzo ziri ezi nakwa</li> <li>n'uzo ezighi ezi.</li> <li>AGUMAGŲ: Ogugu akwukwo</li> <li>ejije a hoputara na nchikota ya.</li> </ul>	IHE UMUAKWUKWO GA-EME:  1. Įkowaputa ndiiche di n'etiti mofim na mkpuruokwu  2. Įkowa ihe bu inwe akunuba  3. Įme mkparitauka gbasara uru na oghom di n'ikpata aku n'uzo ezighi ezi  4. Įgu na ikwu na nkenke gbasara akwukwo ejije ha guru
13.	MMŲGHARĮ IHE A KŲZIRI NA TAM	
14.	ULE	
	MMECHI	

## ASŲSŲ IGBO

## SS TWO TAM NKE ABŲO

IZUŲKA	ISIOKWU / NDĮNISIOKWU	IHE OMUME NA NGWA NKŲZI
1.	UTOASUSU: Mmughari Ahiriokwu na Udi ya di iche iche OMENALA: Mmughari Akunuba na Usoro nnweta ya. AGUMAGU: Omumu Atumaatuokwu /asusu nka. Nkowa na ndeputa nkenudi ya.	IHE UMUAKWUKWO GA-EME:  1. Ige nti 2. Ikowaputa ahiriokwu na udi ya gasi 3. Ideputa omumaatu ha gasi 4. Ikposita usoro e si enweta akunuba 5. Ikowa asusu nka na irugosi ha n'edemede NGWA NKUZI Akwukwo ogugu, ugbo ojii, kaadi mgbubam, dgz.
3.	UTOASUSU: Omumu "Nkwuwa" na Nkenuudi ya di iche iche. OMENALA: Iri Ekpe na ike ekpe AGUMAGU: Omumu Uruokwu na Igbuduokwu	IHE UMUAKWUKWO GA-EME:  1. Ige nti 2. Ikowa ihe nkwuwa na inye omumaatu ha gasi 3. Nrugosi nkwuwa n'ahiriokwu 4. Ikwu etu e si eri ekpe na ndi na-eri ekpe 5. Inye omumaatu uruokwu/igbudu NGWA NKUZI Ugbo ojii, akwukwo ogugu, chaati, kaadi mgbubam, foto/eserese, dgz.
4.	<ul> <li>UTOASUSU: Omumu nkebiokwu – Nkowa ya, ngosiputa ya na nkewaputa nkebiokwu site n'ahiriokwu.</li> <li>OMENALA: Ndiiche di n'iri ekpe, ike ekpe na nnochiokwa.</li> <li>AGUMAGU: Omumu biambia mgbochi na biambia uda.</li> </ul>	IHE UMUAKWUKWO GA-EME:  1. Ige nti 2. Ikowa nkebiokwu 3. Irugosi nkebiokwu n'ahiriokwu di iche iche 4. Ikwuputa ndiiche di n'etiti iri ekpe na ike ekpe 5. Ikowaputa ndiiche di n'etiti biambia mgbochi na biabia uda NGWA NKUZI

**UTOASUSU:** Omumu Nkebiokwu - Mkpoputa udi ya di iche iche na

**Omumu** 

nkebiokwu keaha na kenkowaha. **OMENALA**: Nkowa agwa oma na agwa ojoo. Ugwo onye kpara agwa oma na ahuhu onye kpara agwa ojoo.

**AGUMAGU:** Omumu Mmemmadu na Egbeokwuna.

**ŲTOASŲSŲ: Omumų** Nkebiokwu kembuuzo, kenkwuwa na kenruaka.

**OMENALA:** Òtù dị iche iche naachikwa agwa ohaneeze, dika ezinulo, otu ogbo, otu nzuzo, umuokpu, mmonwu, dgz. **AGUMAGU:** Omumu nzaraonwe

na Nhajideokwu

**UTOASUSU:** Nkowa nkebiahiri, ngosiputa ha n'ahiriokwu na nkewaputa ha.

**OMENALA:** İkowaputa udi echichi na echimechi odinala di iche iche. **AGUMAGU:** Omumu nkwusara na ekwueche ozo.

7.

5.

6.

**ŲTOASŲSŲ:** Ųdį Nkebiahįrį na Omųmų Nkebiahįrį Keaha **OMENALA:** Echimechi Lolo, oru

OMENALA: Echimechi Lolo, oru

ha na uru ha.

AGUMAGU: Omumu myiri na

mburu.

Chaati, akwukwo ogugu, ugbo ojii, dgz.

#### **IHE UMUAKWUKWO GA-EME:**

- 1. Ige nti
- 2. Ikowa nkebiokwu
- 3. Įrugosi nkebiokwu na udi ya di iche

iche

4. Ime mkparitauka gbasara agwa oma

na agwa ojoo

5. Iziputa mmemmadu na egbe okwu

n'ahiriokwu

#### NGWA NKŲZI

Akwukwo ogugu, akwukwo ejije a hooro, ugbo ojii, tiivi, redio, tepurekoda, dgz.

#### IHE UMUAKWUKWO GA-EME

- 1. Įkowa agwa oma na agwa ojoo
- 2. Įkowa nkebi okwu kembuuzo na

kenkowa

- 3. Inye omumaatu ha
- 5. ļkowa ka otu di iche iche si achikwa

agwa ohaneze

- 5. Ikwu ihe bu ajuju nzaraonwe na nhaqideokwu
- 6. Imebe ahirjokwu ebe e nwere nzaraonwe na nhagideokwu.

#### **NGWA NKŲZI**

Akwukwo ogugu, ugbo ojii, foto/eserese, tepurekoda, redio, dgz.

#### **IHE UMUAKWUKWO GA-EME**

- 1. lae nti
- 2. Ikowa ihe bu nkebiahiri
- 3. lmebe ahiriokwu nwere nkebiahiri
- 4. Ikwu udi echimechi odinala ha maara
- 5. Įrugosi ahiri nkwusara na ekwuecheozo

NGWA NKUZI

Akwukwo ogugu, ugbo ojii, kaadi mgbubam, dgz. **IHE UMUAKWUKWO GA-EME** 8. 1. Ikowa udi nkebiahiri e **UTOASUSU:** Omumu nkebiahiri nwegasiri kenkowaaha na kenkwuwa. 2. Įkowa ihe nkebiahiri keaha OMENALA: Iba amanwulu, oru na 3. Inye omumaatu nkebiahiri uru ya keaha AGUMAGU: Omumu ogharaokwu 4. Ikowa na inye omumaatu mburu na soromchia. na myiri. 2. Ikowa ka e si echi lolo na uru di nay a. **NGWA NKUZI** Akwukwo ogugu, ugbo ojii, chaati, kaadi mgbubam,dgz IHE UMUAKWUKWO GA-EME 9. 1. Ikowaputa ndiiche di n'etiti nkebi UTOASUSU: Nkowa ihe bu ahiri kenkowa na kenkwuwa kategori utoasusu na udi ya di iche 2. Inye omumaatu udi nkebiahiri iche: omumu pesin na ngu. ndi a **OMENALA:** Echimechi 'eze' na 3. Ikowa ka e si aba amanwulu uzo e si echi ya. 4. Ikwu uru di n'iba ya na oru ya AGUMAGU: Omumu nsin-nuda . 5. Inye omumaatu ogharaokwu na soromchia **NGWA NKUZI** Akwukwo ogugu, ugbo ojii, kaadi mgbubam, tepu rekoda, chaati, dgz. 10. IHE UMUAKWUKWO GA-EME 1. Ige nti UTOASUSU: Omumu 'Jenda,' oke 2. Ikwuputa katigori utoasusu ndi na nwunye (metutara mmadu na anumanu) nwere **OMENALA:** Oru onye eze na uru 3. Imebe ahiriokwu na-eziputa inwe eze. pesin na **AGUMAGU:** Agwugwa 4. Ikowaputa uzo e si echi eze 5. Irugosi ahirinsinuda **NGWA NKUZI** Akwukwo ogugu , ugbo ojii, kaadi mgbubam, dgz 11.

12. 13.	MMUGHARI IHE A KUZIRI NA TAM ULE ULE NA MMECHI	IHE UMUAKWUKWO GA-EME  1. Ikowa oke na nwunye 2. Ikowa ihe bu jenda 3. Inye omumaatu okwu naegosiputa jenda 4. Ikwu oru onye eze naerugasi 5. Ideputa uru di n'inwe onye eze 6. Ikwu agwugwa ndi ha maara
		NGWA NKŲZI Akwukwo ogugu, ugbo ojii, kaadi mgbubam, dgz.

## ASŲSŲ IGBO SS TWO TAM NKE ATỌ

IZUŲKA	ISIOKWU / NDĮNISIOKWU	IHE OMUME NA NGWA NKŲZI
1.	UTOASUSU: Mmughari katigori utoasusu (Pesin, ngu na jenda) OMENALA: Omumu chi di iche iche n'ala Igbo dk. Idemmili, Amadioha, Ibiniukpabi, dgz, uru na oghom ha. AGUMAGU: Nkuzi okwu ntabiire	IHE UMUAKWUKWO GA-EME: 1. Ige nti 2. Irugosi mkpuruokwu na-egosiputa pesin, ngu na jenda n'ahiriokwu 3. Ikposita udi chi ndi ha maara 4. Ikwu uru na oghom di n'inwe chi 5. Ikwu okwu ntabiire NGWA NKUZI Akwukwo ogugu, ugbo ojii, kaadi mgbubam, dgz.
2.	UTOASUSU: Omumu tensi, Nkowa ya na udi ya di iche iche dk. Tensi ndimecha na ndiugbua  OMENALA: Iri ji n'ala Igbo – usoro na nkwadebe ya.  AGUMAGU: Ogugu akwukwo iduuazi a hoputara.	IHE UMUAKWUKWO GA-EME:  1. Ige nti 2. Ikowa ihe bu tensi na udi ha 3. Iji ahiriokwu gosiputa udi tensi di iche iche 4. ikowa ihe a na-emegasi tupu e rie ji 5. igu akwukwo iduuazi a hoputara.  NGWA NKUZI  Ugbo ojii, akwukwo ogugu klasi, akwukwo iduuazi a hooro,chaati, kaadi mgbubam, foto/eserese, dgz.
3.		IHE ŲMŲAKWŲKWỌ GA-EME:

**UTOASUSU:** Omumu Aspekiti 1. Ige nti na udi ya di iche iche tinyere 2. Ikowa aspekiti 3. Ikwuputa udi aspekiti e nwegasiri imaatu ha. **OMENALA:** Omenala Igba 4. Ideputa uru na oghom di n'igba mgba. Uru na oghom di na maba 5. Igu akwukwo iduuazi a hooro **NGWA NKUZI AGUMAGU:** Ogugu akwukwo Akwukwo ogugu klasi, akwukwo iduuazi a hooro. iduuazi a hooro, ugbo ojii, kaadi mgbubam, dgz. **IHE UMUAKWUKWO GA-EME:** 4. 1. Igu aghotaazaa **UTOASUSU:** Ogugu na 2. Iza ajujų sitere n'aghotaazaa aghotaazaa. Ogugu gbasara 4. İkowa ihe igba ofala putara nlekota gburugburu ebe obibi na uloakwukwo. 5. Ikwu usoro na uru di n'igba ofala 6. <u>Igu akwukwo</u> ejije a hoputara **OMENALA**: Igba ofala – Ihe **NGWA NKŲZI** o bu, usoro ya na uru ya. 5. Akwukwo ogugu klasi, akwukwo ejije a **AGUMAGU:** Ogugu akwukwo họọrọ, ugbọ ojii, tiivi, redio, ejije a hoputara. tepurekoda, dgz. **IHE UMUAKWUKWO GA-EME UTOASUSU:** Nkuzi ntughari; 1. Ige nti Nkowa usoro ntughari ahiri-2. Ikwu usoro e si eme ntughari okwu. 3. Ime ntughari **OMENALA:** Igu nwata aha 4. Ikwu ihe a na-eme n'oge a na-agu na ihu nwata eze. nwata aha maobu ma a hu nwata 6. AGUMAGU: Qgugu eze akwukwo ejije a hooro. 5. Igu akwukwo ejije a hooro. **NGWA NKUZI** Akwukwo ogugu klasi, akwukwo ejije a hooro, ugbo ojii, foto/eserese **IHE UMUAKWUKWO GA-EME UTOASUSU:** Ntughari ilu na 1. Ige nti akpaalaokwu. 2. Itughari ilu na akpaalaokwu ufodu **OMENALA:** Nkwenye ndi 3. ikwuputa ihe ndi Igbo kwenyere na Igbo na udi ya di iche iche. ha 7. AGUMAGU: Ogugu na 4. Igu na ichikota ejije ha guru onu nchikota akwukwo ejije a **NGWA NKUZI** hooro. Akwukwo ogugu, ugbo ojii, Kaadi mgbubam, dgz. **IHE UMUAKAWUKWOGA-EME** 

8.	UTOASUSU: Ntughari abu a hoputara OMENALA: Omumu ilo uwa na ogbanje AGUMAGU: Ogugu akuko ifo a hoputara.	1. Ige nti 2. Itughari abu a hoputara 3. Ikowa ilo uwa na ogbanje 4. Igu na iza ajuju sitere n'akuko ifo a hoputara  NGWA NKUZI  Akwukwo ogugu na akwukwo akuko ifo, ugbo ojii, tepu rekodu, redio, dgz.
9.	UTOASUSU: Ndakorita udaume OMENALA: Omumu arusi, mmuo, agbara na chukwu AGUMAGU: Ogugu banyere nsogbu a na-enwe na gburugburu ebe obibi dika: ide mmiri, igbutu osisi aghara aghara.	IHE UMUAKWUKWO GA-EME  1. İkowa ihe bu Ndakorita udaume 2. İnye omumaatu mkpuruokwu nwere ndakorita udaume 3. İkwu ihe ha maara gbasara arusi, mmuo, agbara na chukwu 4. İgu ihe oğuğu na iji okwu ohuru meputa mkpuruokwu NGWA NKUZI Akwukwo oğuğu hooro, ugbo ojii, kaadi mgbubam, tepu rekoda, dgz.
10.	UTOASUSU: Omumu akara udaolu –ltinye akara udaolu na mkpuruokwu ndi nwere otu nsupe na nghota di iche iche iche.  OMENALA: Omumu ngwa ofufe – dk. Okpesi na ofo. Uru na oghom di na ha.  AGUMAGU: Uru di n'ilekota gburugburu (environment) na oghom na-adi ma elekotaghi ya.	IHE UMUAKWUKWO GA-EME  1. Ige nti 2. Itinye akara udaolu na mkpuru - okwu 3. Ikowa ngwa ofufe : okpesi na ofo 4. Ikwu uru na oghom di n'iji ngwa ofufe ndi a 5. Ikwu uru na oghom na-adi n'ilekota maobu elekotaghi gburugburu anya.  NGWA NKUZI Akwukwo ogugu, ugbo ojii, kaadi mgbubam, tepu rekoda, dgz.
<ul><li>11.</li><li>12.</li><li>13.</li></ul>	UTOASUSU: Edemede ilu dk. "Ekwe ekwe na-ekwe n'uta ekwere".  OMENALA: Omumu ikenga na otonsi. Oru ha na oghom ha.  AGUMAGU: Uche umuaka gbasara akwukwo agumagu	IHE ŲMŲAKWŲKWŲ GA-EME  1. Ide edemede ilu  2. Ikwu ihe bụ ikenga na otonsi  3. Ideputa ihe bụ oru ha  4. Ikwu oghom na-eso ha  5. Ikwuputa uche ha gbasara akwukwo agumagu ha guru NGWA NKŲZI Akwukwo ogugu klasi, akwukwo iduuazi/ejije, ugbo ojii, tepu rekoda,
	ha dika ejije ma o bu iduuazi	chaati, dgz.

MMŲGHARĮ IHE A KŲZIRI	
ULE	
ULE NA MMECHI	

## OTHER COMPULSORY SUBJECTS FOR SS 2 STUDENTS

## FURTHER MATHS SS 2 FIRST TERM

WEEK	TOPIC / CONTENT	ACTIVITIES
1	ROOTS OF QUADRATIC EQUATION  i. Sum and product of roots ii. forming quadratic equation given sum and product of root iii. condition for quadratic equation to have: - Equal roots (b²=4ac) - Real roots (b²>4ac) - No roots (b²<4ac) (complex)	Teacher: leads students to find sum and products of roots of quadratic equation Students: use formular to find sum and product of roots of quadratic equation Instructional Resource: charts showing a quadratic equation
2	ROOTS OF QUADRATIC EQUATION II i. Conditions for given line to intersect a curve, be tangent to curve, not intersect a curve. ii. Solution of problems on roots of quadratic equation	Teacher: states condition for quadratic equation to have equal roots, real roots and no roots(complex roots).  Students: solve various problems on root of quadratic equation Instructional Resource: charts showing condition for lines to intersect curve and not to intersect.
3	POLYNOMIALS  i. Definition of polynomial a. addition b. subtraction c. multiplication ii. Division of polynomials by a polynomial of lesser degree	Teacher: gives definition and examples of polynomials Students: state definition and examples of polynomial Instructional Resource: charts giving examples of polynomials of various degrees.
4	POLYNOMIALS  i. Reminder theorem  ii. Factor theorem  iii. Factorization of polynomials	Teacher: demonstrates how to find remainder when a polynomial is divided by another polynomial of lesser degree.  Students: solve problems on remainder theorem and factor theorem Instructional Resource: charts showing sum of root and product.

5	POLYNOMIALS	Teacher: leads students to solve problem on
	i. Roots of cubic equation	roots of cubic equation
	a. Sum of roots $\alpha + \beta + \delta = -b/a$	Students: solve problems on roots of cubic
	b. sum products of two roots	equation.
	$\alpha^{\beta} + \alpha^{\delta} + \beta^{\delta} = c/a$	Instructional Resource: charts showing
	c. product of roots $\alpha^{\beta\delta} = -d/a$	sum of roots, sum of product of two roots and
	where $ax^3+bx^2+cx+d=0$	products of three roots of a cubic equation.
6	PROBABILITY	Teacher: leads students to evolve concepts
0	i. Classical, frequential and	of classical and frequential approaches using
	axiomative approaches to	ludo dice.
	probability	Students: identify the classical, frequential
	ii. Sample space and event	and axiomatic definition of probability
		Instructional Resource: ludo dice, coin,
	space iii. Mutually exclusive,	pack of cards.
	independent and conditional	pack of cards.
	events.	
7	PROBABILITY	Teacher: solves conditional probability
'	i. Conditional probability	Students: solves conditional probability
	ii. Probability trees	probability
	ii. I Tobability trees	Instructional Resource: ludo dice, coin,
		pack of cards.
8	VECTORS IN THREE	<b>Teacher:</b> gives examples of vectors in three
	DIMENSIONS	dimensions
	i. Scalar product of vector in	Students: write out more examples of three
	three dimensions	dimensional vectors
	ii. Application of scalar product	Instructional Resource: charts depicting
	дриговиот от осони ресовие	example of three dimensional vectors.
9	VECTORS IN THREE	Teacher: guides students to find cross
	DIMENSIONS	product of two vectors and leads them to
	i. Vector or cross product in	solve problems on application
	three dimensions	Students: solve problem on cross product of
	ii. Application of cross product	two vector and practical application of dot
		product.
		Instructional Resource: charts showing
		short cut method of finding dot product.
10	LOGICAL REASONING	Teacher: guides students to identify
	i. Fundamental issues in	fundamental issues in intelligent system
	intelligent system	Students: Identify fundamental issue in
	ii. Fundamental definition	intelligent system
	iii. Modelling the world.	Instructional Resource: charts showing
		critical issues in intelligent system.
11	LOGICAL REASONING	Teacher: introduces propositional and
	The following of the contract	bradicate logical resolution
	i. Introduction to propositional	predicate logical resolution
	and predicate logical resolution	Students: explain propositional and
	· · ·	Students: explain propositional and predicate resolution
	and predicate logical resolution	Students: explain propositional and predicate resolution Instructional Resource: charts showing
	and predicate logical resolution ii. Introduction to theorem proving	Students: explain propositional and predicate resolution
12	and predicate logical resolution ii. Introduction to theorem proving  Revisions	Students: explain propositional and predicate resolution Instructional Resource: charts showing points to note in proving of theorem. Revisions
12 13 14	and predicate logical resolution ii. Introduction to theorem proving	Students: explain propositional and predicate resolution Instructional Resource: charts showing points to note in proving of theorem.

## FURTHER MATHS SS 2 SECOND TERM

WEEK	TOPIC / CONTENT	ACTIVITIES
1	DIFFERENTIATION	Teacher: guides students on how to find
	i. Limits of a function	limits of a function and differentiate from first
	ii. Differentiation from first	principle.
	principle	Students: Evaluate limits of a function at a
	iii. Differentiation of polynomials	given value and differentiate from first
		principle.
		Instructional Resource: charts showing
		rules of differentiation.
2	DIFFERENTIATION	Teacher: leads students to differentiate
	Differentiation of transcendental	transcendental functions
	function such as sin x, eax, log 3x	Students: Differentiate transcendental
		functions.
		Instructional Resource: chart showing
		areas of application
3	DIFFERENTIATION	<b>Teacher:</b> guides students to use rules of
	i. Rules of differentiation	differentiation
	ii. Product rule	Students: use rules of differentiation
	iii. Quotient rule	Instructional Resource: charts showing
	iv. Function of function	rules of differentiation
4.	DIFFERENTIATION	Teacher: leads students to use
	i. Application of differentiation to	differentiation in finding: rate of change,
	a. rate of change	gradient of a function and optimization
	b. gradient	involving maximum and minimum values.
	c. maximum and minimum values	<b>Students:</b> use differentiation in finding: rate
	d. equation of motion	of change, gradient of a function and
		optimization involving maximum and
		minimum values.
		Instructional Resources: chart showing
		areas of application.
5	DIFFERENTIATION	Teacher: guides students to higher
	i. Higher derivatives	derivative and differentiation of implicit
	ii. Differentiation of implicit	functions
	functions.	Instructional Resource: chart showing
	DINOMIAL EVDANGION	areas of application.
6	BINOMIAL EXPANSION	<b>Teacher:</b> guides students to demonstrate the
	i. Pascal triangle	Pascal triangle and write out the binomial
	ii. Binomial expression of (a+b) <sup>n</sup>	expansion.
	where n is +ve integer, -ve	Students: construct the Pascal triangle and
	integer or fractional value	write our binomial expansion.
		Instructional Resource: charts showing
		Pascal triangle
7	BINOMIAL EXPANSION	Teacher: leads students to extend the power
'	i. Finding nth term	of negative integer and fractional values.
	i. i inding hur tellil	i or riegative integer and fractional values.

	ii. Application of binomial	Students: use the knowledge of expansion
		•
	expansion	of positive expansion to negative and
		fractional powers.
		Instructional Resources: charts showing
		n <sup>th</sup> term of a given binomial expansion.
8	CONIC SECTION: THE CIRCLE	<b>Teacher:</b> leads students to define circle and
	i. Definition of circle	explain concept of a circle as conic section.
	ii. Equation of circle given centre	<b>Students:</b> solve various types of problems
	and radius	on circles.
		Instructional Resources: chart depicting
		circle as section of a cone.
9	CONIC SECTION: THE CIRLCE	<b>Teacher:</b> guides students to solve various
	i. General equation of a circle	types of problems on circles.
	a. finding centre and radius of a	<b>Students:</b> solve various types of problems
	given circle	on circle.
	b. finding equation of a circle	Instructional Resources: chart showing
	given the end point of the	equation of circle passing through 3 points.
	diameter	
	c. equation of a circle passing	
	through three points.	
10	CONIC SECTION: THE CIRCLE	<b>Teacher:</b> leads students to find the equation
	i. Equation of tangent to a circle	of a tangent to circle
	ii. Length of tangent to a circle	Students: learn technique of finding
		equation of tangent to circle
		Instructional Resources: chart showing
		tangent of circle and length of tangent.
11	Revisions	Revisions
12	Examinations	Examinations

## FURTHER MATHS SS 2 THIRD TERM

WEEK	TOPIC / CONTENT	ACTIVITIES
1	i. Knowledge of six trigonometric functions of angles of any magnitude (since, cosine, tangent, secant, cosecant, cotangent). ii. Range and domain of specified trigonometric functions iii. Graphs of trigonometric ratios with emphasis on their amplitude and periodicity.	Teacher: leads students to identify and find trigonometric function of angles Students: identify angles of the six trigonometric ratios. Instructional Resources: charts showing relationship between the six trigonometric ratios.
2	i. Relationship between graphs of trig ratios e.g. sin x and sin 2x	<b>Teacher:</b> leads students to identify relationship between graphs of trigonometric ratios.

	graphs of y = a sin (bx) + c y = a cos (bx) + c y = a tan (bx) + c ii. Graphs of inverse by ratio	Students: identify relationship between the graphs of trigonometric ratios e.g. sinx and sin2x.  Instructional Resource: charts showing sketches of inverse of sinx, cosx and tanx.
3	i. solution of simple equation involving the six trigonometric functions ii. proofs of simple trigonometric identities e.g. sin <sup>2</sup> x + cos <sup>2</sup> x = 1 sec <sup>2</sup> x = 1+tan <sup>2</sup> x	Teacher: guides them to solve simple equations involving trigonometric ratios.  Students: solve simple trigonometric equation.  Instructional Resources: charts showing sketches of inverse of sin x, cosx and tanx.
4	PERMUTATIONS AND COMBINATIONS  i. Permutation on arrangement ii. Cyclic permutation iii. Arrangement of identical object.	Teacher: guides students to solve problem on cyclic permutation and other types of permutation.  Students: solve various problems on permutation  Instructional Resources: charts showing:  - Functional notation - "pr - "cr
5	PERMUTATIONS AND COMBINATIONS  i. Arrangements in which repetitions are allowed ii. Introduction to combination on selection. a). Conditional arrangements and selection b). Probability arrangement problem involving arrangement and selection.	Teacher: demonstrates application of combination in probability.  Students: use concept of combination to solve problem on probability.  Instructional Resources: charts showing functional notation.
6	i. Newton laws of motion ii. Motion along inclined plane	Teacher: explains Newton's law of motion and states the three laws of motion.  Students: write down the laws of motion and solve problems on Newton's laws of motion.  Instructional Resources: Ball and heavy block placed on table to demonstrate 3 <sup>rd</sup> law.
7	i. Motion of connected particles ii. Work, Energy and Power iii. Impulse and Momentum	Teacher: guides students to solve problem involving application of Newton's law of motion.  Students: solve problem on motion along inclined plane.  Instructional Resources: An inclined plane with object on it.
8	DYNAMICS i. Projectiles ii. Trajectory of projectiles iii. Projection along inclined plane.	Teacher: guide students to solve various problem on projectiles.  Students: solves various problems on projectile

		Instructional Resources: Light smooth pulley with two blocks connected by string.
9.	i. Concept of inventory ii. Definitions of important terms in inventory. iii. Holding list iv. Ordering list etc. computation of optimal quantity [EOQ model].	Teacher: guide students to give practical examples on inventory. Students: define various terms on inventory Instructional Resources: charts depicting items on inventory.
10	i. Concept of replacement ii. Individual replacement of sudden failure item iii. Replacement of items that wear out gradually.	Teacher: explains the concept of replacement Students: gives practical examples of item that wear out suddenly and gradually. Instructional Resources: charts showing diagrams of items such as plugs, bulbs, generators, grinding machines etc.
11	Revisions	Revisions
12	Examinations	Examinations
13	Examinations	Examinations

# **SENIOR SECONDARY (ARTS)**

## **LITERATURE**

#### **SS 2 FIRST TERM**

WEEK	TOPIC/CONTENT	ACTIVITIES
1	Introduction to the "OTHERO" by William Shakespare	<ul> <li>Background of the playwright (dramatist)</li> <li>Background and setting of the play</li> <li>Plot summary</li> <li>Shakespearean language and current English on a cardboard sheet</li> <li>Film show on "The Tempest"</li> </ul>
2	Reading and explanation of Act One	<ul> <li>Reading and discussion of scene one</li> <li>Reading and explanation of act one scene two</li> </ul>
3	Reading of Act Two	<ul> <li>Reading and explanation of Act Two, scene One</li> <li>Act Two, scene Two</li> <li>Present action of video</li> <li>Clips on "the Tempest"</li> </ul>
4	Reading and explanation of Act Three	<ul> <li>Reading and discussions one Act Three Scene One</li> <li>Act Three scene Two</li> <li>Act Three scene Three</li> <li>A drawing of a ship on the sea, about to be shipwrecked</li> </ul>
5	Reading Act Four of "The Tempest"	<ul> <li>Reading and discussions on Act four</li> <li>Students to do a weekend assignment by summarizing Act Four in their books.</li> </ul>
6	Reading and explanation of Act Five	<ul> <li>Discussion and reading of scene one</li> <li>Reading and discussion on scene two</li> <li>Teacher to lead discussions on the epilogue</li> </ul>
7	Role-play (Drama)	<ul> <li>Students to role-play the actions of maor characters</li> <li>Role –play the actions of minor characters</li> <li>State the relationship between the characters</li> <li>Watch a video clip of "The Tempest"</li> </ul>

8	Introduction to the "NATIVE SON" by Richard Wright	<ul> <li>Background of the Novelist</li> <li>Background and setting of the Novella.</li> <li>Plot summary/state sequence of events</li> <li>Show cause effect relationship</li> </ul>
9	Themes and style	<ul> <li>Examine the Themes</li> <li>Analyze the styles</li> <li>Read out relevant portions that highlight the themes.</li> <li>Relate the theme to actual life experience or encounters</li> </ul>
10	Character Analysis 1	<ul> <li>Examine the major characters</li> <li>Discussion on their roles and significances</li> <li>Examine how the characters are related.</li> </ul>
11	Character Analysis 2	<ul> <li>Examine the minor characters</li> <li>Analyze their roles and significances to the plot</li> <li>Discuss their various relationship</li> </ul>
12	Revision	<ul> <li>Revision work on "Native Son" Discussing the themes, characters and plot structure</li> <li>Sketch picture of combat soldiers at war on a cardboard sheet</li> </ul>
13	Revision	Revision
14	Examinations	Examinations

## **LITERATURE**

## **SS 2 SECOND TERM**

WEEK	TOPIC/CONTENT	ACTIVITIES
1	Introduction to "FACELESS" by Amma Darko	<ul> <li>Background of the novelist</li> <li>Background and setting of the novel</li> <li>Plot and summary</li> </ul>
2	The Themes and style	<ul> <li>Examine the themes and style</li> <li>Analyze the themes and style</li> <li>Relate the themes to personal life encounter</li> <li>Show a video chip of the boys on coral Island</li> </ul>
3	Character Analysis I	<ul> <li>Examine the characters-major</li> <li>Analyze the major characters- their roles and significance</li> </ul>

		The relationship between the major characters.
4	General overview of the novel-"The Faceless"	<ul> <li>General discussions/Compete with other students</li> <li>Give project/pair the students for discussions</li> <li>Questions and answers session on the novel.</li> </ul>
5	Introduction to ""the Blood of a Stranger"by Dele Charlery.	<ul> <li>Background of the Play- Wright/dramatist</li> <li>Background and setting of the play</li> </ul>
	The Themes and Style	- Plot and summary
6	Introduction to "She stoops to Conquer" by Oliver Goldsmith	<ul> <li>Examine the themes and style in the play.</li> <li>Analyze the themes and style in the play</li> <li>Relate themes to personal life encounter</li> <li>Use the text to point out relevant</li> </ul>
7	The Themes and Style	sections e.g the conflict between the western culture VS African culture.
9	Character Analysis	<ul> <li>Background of the Play- Wright/dramatist</li> <li>Background and setting of the play Plot and summary</li> </ul>
10	Role –Play "The Blood of a Stranger and "She Stoops to Conquer"	<ul> <li>Examine the themes and style in the play.</li> <li>Analyze the themes and style in the play</li> <li>Relate themes to personal life encounter.</li> </ul>
11		<ul> <li>Examine the characters-major and minor</li> <li>Analyze the characters</li> <li>How are the characters related</li> </ul>
12	Revision	- Role-play the actions of the major characters

13	Examinations	Revision
		Examinations.

# LITERATURE SS 2 THIRD TERM

WEEK	TOPIC/CONTENT	ACTIVITIES
1	Introduction to "Ambush" by Gbemisola Adeoti	<ul> <li>Background and setting of the poet/poem</li> <li>Background of the poem-subject-matter/summary</li> <li>Effective use of poetic devices/Techniques</li> <li>Effective use of Imagery/symbolism</li> <li>A cardboard / print out picture of someone ambushed.</li> </ul>
2	Introduction to "The Dining Table" by Gbanabam Hallewell.	<ul> <li>Background and setting of the poet/poem</li> <li>Background of the poem-subject-matter/summary</li> <li>Effective use of poeti devices/Techniques</li> <li>Effective use of imagery/symbolism</li> <li>A cardboard/print out picture of a dining table.</li> </ul>
3	Introduction to "Home-less Not "Hopeless" by Sola Owonibi.	<ul> <li>Background and setting of the poet/poem</li> <li>Background of poem subject matter/summary</li> <li>Effective use of poetic devices/Technique</li> <li>Effective use of imagery/symbolism</li> <li>A scenery/picture of beggars or people e.g under the bridge</li> </ul>
	Introduction to "The Fence" by Lenrie Peters.	- Background and setting of the poet/poem

		T
5	Introduction to "The School Boy" by William Blake	<ul> <li>Background of the poem-subject matter/summary</li> <li>Effective use poetic devices/techniques</li> <li>Effective use of imagery/symbolism</li> <li>A picture of one wall(fence) of someone in a mood of indecision.</li> <li>Background and setting of the Poet/Poem</li> <li>Background of the Poem-subject- matter/summary</li> <li>Effective use of poetic</li> </ul>
		devices/Techniques - Effective use of imagery/symbolism - Picture of a school boy.
6	Introduction to "Myopia" by Sly Cheney Coker.	<ul> <li>Background and setting of the Poet/Poem</li> <li>Background of the Poemsubject- matter/summary</li> <li>Effective use of poetic devices/Techniques</li> <li>Effective use of imagery/symbolism</li> <li>Cardboard picture of a medicated glasses/specs</li> <li>Some things to show lack of</li> </ul>
7	Introduction to the "Crossing the Bar" by Alfred Tennyson	future planning.  - Background and setting of the Poet/Poem - Background of the Poemsubject- matter/summary - Effective use of poetic devices/Techniques - Effective use of imagery/symbolism - Picture of the Crossing the Bar.
8	Introduction to "The Soul's Errand" by Walter Raleigh.	<ul> <li>Background and setting of the Poet/Poem</li> <li>Background of the Poemsubject- matter/summary</li> <li>Effective use of poetic devices/Techniques</li> <li>Effective use of imagery/symbolism</li> </ul>

		A picture of a boy on an arrand
		- A picture of a boy on an errand
9	Introduction to "Upon An Honest Man's Fortune"	<ul> <li>Background and setting of the Poet/Poem</li> <li>Background of the Poemsubject- matter/summary</li> <li>Effective use of poetic devices/Techniques</li> <li>Effective use of imagery/symbolism</li> <li>Picture of stars on the sky</li> </ul>
10	General Overview of the Poems	<ul> <li>Discussion in groups by the students of the background and setting of the poems</li> <li>Discussion in groups by the students on the devices and images in the poems</li> </ul>
11	Revision	Revision
12	Examination	Examination
13	Examination	Examination

## **GOVERNMENT**

## **SS 2 FIRSTTERM**

WEEK	TOPIC/CONTENT	ACTIVITIES
1	CIVIL SERVICE	Teacher leads discussion on
	<ol> <li>i. Meaning/definition of civil</li> </ol>	civil service.
	service	<ol><li>Ask students to list the duties</li></ol>
	<ol><li>ii. Characteristics of civil</li></ol>	performed by some
	service	government officials in their
	iii. Structures of civil service	localities.
	<ol><li>iv. Functions of civil service</li></ol>	
	<ul><li>v. Control of civil service</li></ul>	
	vi. Problems of civil service	
2	CIVIL SERVICE	<ol> <li>Teacher leads discussion on</li> </ol>
	(ADMINISTRATIVE/PROFESSIONAL	civil service commission
	CLASSES)	<ol><li>Illustrates with organisational</li></ol>
	<ol> <li>i. Executive class</li> </ol>	chart of the civil service
	ii. Clerical class	commission in Nigeria
	iii. Ethic, honesty, integrity	
3	PERSONNEL ADMINISTRATION IN	<ol> <li>Teacher lead discussion on</li> </ol>
	THE CIVIL SERVICE	civil service commission
	<ol> <li>i. Meaning of civil service</li> </ol>	<ol><li>Illustrate with organisational</li></ol>
	commission	chart of the civil service
	ii. Structure of the commission	commission in Nigeria.
	iii. Functions of the	
	commission	
	iv. Relationship between the	
	civil service and political	
	executives.	
4	PUBLIC CORPORATIONS	Teacher leads discussion on
	i. Definition of public	public corporation
	corporations.	2. Invite a resource person to
	ii. Reasons for establishing	give talk on the functions of
	public corporations	public corporations
	iii. Functions of public	
	corporation	4 Total color to Proceedings
5	STRUCTURE AND ORGANISATION	Teacher leads discussion on
	OF PUBLIC CORPORATION	the structure of public
	<ul><li>i. Minister as a political head</li><li>ii. Board of Director</li></ul>	organisation
		2. Draws a diagram showing
	3	the relationship between a
	iv. Comparison of the	minster, board and
6	organisation CONTROL AND PROBLEMS OF	management.  1. Teacher leads discussion on
0	PUBLIC CORPORATION	the control and problems of
	i. Reasons for the control of	public corporation
	public corporation	Embarks on excursion to a
	public corporation	public corporation e.g. banks,
		Radio. Television stations,
		ו/מעוט. ו פופעוטוטון טנמנוטווט,

	ii. Types of control: ministerial,	companies Dayarages etc.
	ii. Types of control: ministerial, parliament and judicial	companies Beverages etc to
	control	be organised.
	iii. Problems facing public	
	corporation	
7	COMMERCIALIZATION	Teacher leads discussion on
,	i. Definition of	commercialization
	commercialization	Invites an expert to give talk
	ii. Reasons for	on commercialization.
	commercialization	on commercialization.
	iii. Merits and demerits of	
	commercialization in	
	Nigeria.	
8	PRIVATIZATION	Teacher leads discussion on
	i. Definition of privatization	privatization
	ii. Reasons for privatization	Invites an expert to give talk
	iii. Merits and demerits of	on privatization.
	privatization in Nigeria.	on privatization.
9	DEREGULATION	Teacher leads discussion on
	i. Meaning of deregulation	deregulation
	ii. Reasons for deregulation	Invites an expert to give talk
	iii. Advantages and	on deregulation.
	disadvantages of	on acreganism
	deregulation in Nigeria.	
10	LOCAL GOVERNMENT	Teacher leads discussion on
	ADMINISTRATION IN NIGERIA	local government
	i. Meaning of local	2. Cites, services performance
	government administration	by local government
	ii. Reasons for the creation of	<ol><li>Organises an excursion to</li></ol>
	local government in Britain	local government secretariat
	and France	
	iii. Functions of local	
	government	
	iv. System of local government	
	in Britain and France.	
11	THE STRUCTURE OF LOCAL	Teacher leads discussion on
	GOVERNMENT	the evolution and structure of
	i. The evolution of local	local government.
	government in Nigeria	Visits local government
	ii. Structure of local	secretariat.
	government in Nigeria.	
	iii. Local government sources	
	of finance	
	iv. Relationship among local,	
	state and federal	
	government in Nigeria.	
12	LOCAL GOVERNMENT REFORMS	Teacher leads discussion on
12	LOCAL GOVERNIVIENT REFORMS	the role of local government
		and the 1976 local
		anu ine 1970 local

	<ul> <li>i. Roles of traditional rulers in local government administration</li> <li>ii. 1976, local government reforms</li> <li>iii. Problems facing local governments in Nigeria today.</li> <li>iv. Measures or ways to improve local government</li> </ul>	government reforms in Nigeria.  2. Organizes debate on the role of traditional rulers in the administration of local government in Nigeria.
	improve local government administration in Nigeria.	
13	Revision	Revision
14	Examination	Examination

#### **GOVERNMENT**

## **SS 2 SECOND TERM**

WEEK	TOPIC/CONTENTS	ACTIVITIES
1	PRE-COLONIAL ADMINISTRATION  i. System of administration in pre-colonial Hausa-Fulani government  ii. Structure of the system of government  iii. Roles of the system	<ol> <li>Invite resource person to give talk on governments in pre-colonial days</li> <li>Guide students to compare different pre-colonial administrations.</li> <li>Organise visits to museums and sites of traditional kingdoms.</li> </ol>
2	PRE-COLONIAL ADMINISTRATION  i. Igbo pre-colonial political system of government  ii. The structure of the government in pre-colonial Igbo political system.  iii. The roles of the system.	<ol> <li>Invite resource person to give talk on Igbo pre-colonial political system of government</li> <li>Guide students to compare the pre-colonial administrations.</li> <li>Organise visits to museums and sites of traditional kingdoms.</li> </ol>
3	PRE-COLONIAL POLITICAL SYSTEM OF GOVERNMENT IN YORUBA LAND i. System of government in pre-colonial Yoruba days.	Invite resource person to give talk on the Yoruba precolonial system of government.

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	ii. The structure of the system	2.	Guide students to compare
	of government		different pre-colonial
	iii. Roles of the system		administrations.
		3.	Organise visits to museums
			and sites of traditional
			kingdoms.
4	COMPARISONS OF DIFFERENT	1	Guide students to compare
	PRE-COLONIAL ADMINISTRATION	1.	•
			the different pre-colonial
	IN NIGERIA.		political system of
	i. Hausa-Fulani system of		government in Hausa-Fulani,
	government		Igbo and Yoruba
	ii. Igbo system of government	2.	Organise visits to museums
	iii. Yoruba system of		and sites of traditional
	government		kingdoms.
5	COLONIAL ADMINISTRATION	1.	Provide students with
	i. Definition of indirect rule		materials on British colonial
	ii. Reasons for introducing		administration
	indirect rule in Nigeria	2	Invite resource persons to
	iii. Principles and structures of	۷.	give talk on British colonial
	indirect rule.		administration
	indirect rule.	2	
		3.	Organise debate on the
			merits and demerits of
			colonial rule.
6	INDIRECT RULE IN NORTHERN	1.	Invite resource persons to
	NIGERIA		give talk on indirect rule in
	i. Reasons for the success of		northern Nigeria.
	indirect rule in northern	2.	Lead debate on the success
	Nigeria.		of indirect rule in northern
			Nigeria.
7	INDIRECT RULE IN SOUTHERN	1.	Lead discussion on the
	NIGERIA.		failure of indirect rule in
	i. Reasons for the failure of		southern part of Nigeria
	indirect rule in southern	2	Organise a debate on the
	Nigeria.	۷.	reasons for the failure of
	i Nigeria.		
			indirect rule in southern part
			of Nigeria (merits and
	COLONIAL ABAMMICTS ATION		demerits of indirect rule)
8	COLONIAL ADMINISTRATION	1.	•
	i. French administration policy		give talk on the French
	of assimilation and		system of administration in
	association.		West Africa.
	ii. Meaning of assimilation and	2.	Organise debate on the
	association.		merits and demerits of
	iii. Problems of policy of		colonial rule.
	assimilation		-
	iv. Reasons for change from		
	assimilation to association		
9	COLONIAL ADMINISTRATION	1	Teacher leads discussion on
٦		1.	
	CONTINUED		colonial rule in West Africa

	<ul> <li>i. Comparison of British and French colonial policies of administration</li> <li>ii. The effect/impacts of British and French administration in West Africa</li> </ul>	Organises a drama/debate     on the merits and demerits of     colonial rule in West Africa.
10	i. Definition of nationalism ii. Factors that led to the rise and growth of nationalism in Nigeria. iii. Effects of nationalism in Nigeria iv. The activities of Nigerian nationalists e.g. a. Dr. Nnamdi Azikiwe b. Chief obafemi Awolowo c. Sir Abubakar Tafawa Balewa d. Sir Ahmadu Bello e. Ernest Ikoli etc	<ol> <li>Guide students to explain the definition/concept of nationalism</li> <li>Invite a resource person to give a talk on nationalism in Nigeria.</li> <li>Organise a drama on nationalist struggle in Nigeria.</li> <li>Show video clips documentary on nationalist activities in Nigeria.</li> </ol>
11	Revision	Revision
12	Examination	Examination

## **GOVERNMENT**

## **SS 2 THIRD TERM**

WEEK	TOPIC/CONTENT	ACTIVITIES
1	CONSTITUTIONAL DEVELOPMENT IN NIGERIA i. Hugh Clifford's constitution of 1922 ii. Features	<ol> <li>Lead students to name different constitutions in Nigeria</li> <li>Organize a visit to the nearest office of national archives</li> <li>Guide the students to identify</li> </ol>
	iii. Merits and demerits	the common feature of the constitutions
2	ARTHUR RICHARDS CONSTITUTION OF 1946/47 i. Features ii. Merits and demerits	<ol> <li>Lead students to name different constitutions in Nigeria</li> <li>Organize a visit to the nearest office of national archives</li> <li>Guide the students to identify the common feature of the constitutions</li> </ol>
3	CONSTITUTIONAL DEVELOPMENT IN NIGERIA i. Macpherson Constitution of 1951	<ol> <li>Lead students to name different constitutions in Nigeria</li> <li>Organize a visit to the nearest office of national archives</li> </ol>

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	ii. Features iii. Merits and demerits	Guide the students to identify     the common feature of the
		constitutions
4	CONSTITUTIONAL DEVELOPMENT IN NIGERIA	Lead students to name different constitutions in Nigeria
		_
	i. Oliver Lyttleton's	2. Organize a visit to the nearest
	Constitution of 1954	office of national archives
	ii. Features	3. Guide the students to identify
	iii. Merits and demerits	the common feature of the
	144 100 0001000000000000000000000000000	constitutions
5	MAJOR CONSTITUTIONAL	Invite a resource person to give
	CONFERENCES OF 1950, 1953,	talk on the conferences held
	1957 AND 1958	2. Organise a debate or drama on
		the merits and demerits of the
		conference.
6	INDEPENDENCE	<ol> <li>Invite a resource person to give</li> </ol>
	CONSTITUTION OF 1960	talk on the 1960 constitution
	i. Features	<ol><li>Organise a debate or drama on</li></ol>
	ii. Merits and demerits	the merits and demerits of the
		1960 constitution.
7	REPUBLICAN CONSTITUTION	Teacher lead discussion on
	OF 1963 PARLIAMENTARY	Republican constitution of 1963
	i. Features	2. Organise a debate or drama on
	ii. Merits and demerits	the merits and demerits of the
		1963 Republican Constitution.
8	1979 PRESIDENTIAL	Invite a resource person to give
	CONSTITUTION	talk on the presidential
	i. Features	constitution
	ii. Merits and demerits	2. Organise a drama on the organs
	Monte and domente	of government
9	1999 CONSTITUTION:	Invite a resource person to give
	PRESIDENTIAL	talk on the 1999 constitution
	i. Features	2. Guide the students to identify
	ii. Merits and demerits	the merits and demerits of 1999
	monto ana domento	constitution and discuss it.
		3. Organise an excursion to the
		state/national assembly to see
		the process of law making and
		court for judicial interpretation of
		the law made.
10	FEDERALISM	Teacher leads discussion on the
	i. The emergence of	reasons that led to the adoption
	federalism in Nigeria	of federalism in Nigeria.
	ii. Factors that necessitate	Discusses the major
	the formation of federal	constitutional conferences of
	government in Nigeria.	1950, 57,and 58 as a prelude to
	_	
	iii. Features of Nigerian federalism	the adoption of federalism and the issues involved.
		u ie issues ilivoivea.
	iv. Problems of Nigerian federalism e.g.	
	i ederalism é.d.	

11	a. Revenue allocation formula b. Minority issues c. State creation d. Ethnicity rivalry problems.  NATURE AND STRUCTURE OF NIGERIAN FEDERALISM i. Federalism before independence from 1914 to 1959 ii. 1960 – 1966 iii. 1967 – 1975	Teacher leads discussion on the political structure and division of powers in Nigeria federalism     Leads debate on the advantages and disadvantages of federalism	
	iv. 1976 – to date		
12	Revision	Revision	
13	Examination	Examination	

## **CHRISTIAN RELIGIOUS STUDIES**

## **SS 2 FIRST TERM**

WEEK	TOPIC	CONTENT	ACTIVITIES
1	The Sovereignty of God	a. Meaning of sovereignty of God b. God the Creator - first account of creation - Second account of creation - Both accounts compared (Genesis 1&2, Psalm 19:1) c. Sovereignty of God over individual lives. (Daniel 4:4-37, Isaiah 45:10)	<ul> <li>Students to distinguish between things created by God and those made by man.</li> <li>Discuss the implication of God's Sovereignty over student's lives.</li> </ul>
2	God the Controller of the Universe	<ul> <li>a. God's control of the universe (Genesis 1:26-31, Amos 9:1-6)</li> <li>b. God controls the affairs of Nations (Jeremiah 18:1-6)</li> </ul>	<ul> <li>Students to imagine what happen if God withdrew from the world.</li> <li>Discuss how human beings are dependent on God.</li> </ul>

3	The apostles Creed	<ul> <li>a. Meaning of creed (Credo) 'I Believe'</li> <li>b. B. content of the Apostles creed. See the Curriculum page 21. Or the Internet</li> <li>c. Trinitarian nature of apostles creed</li> </ul>	Students to memorize the Apostles Creed.
4.	Leadership	<ul> <li>a. Meaning of Leadership</li> <li>b. Joseph as a leader</li> <li>- Joseph's early life</li> <li>and arrival in Egypt</li> <li>(Genesis 37:1-28)</li> <li>- Joseph the governor</li> <li>of Egypt. (Genesis 41:1-57)</li> <li>- Joseph reconciles</li> <li>with his brothers.</li> <li>(Genesis 45:1-15)</li> </ul>	<ul> <li>Students to list personal and leadership attributes of Joseph</li> <li>Compare Joseph's leadership style with that of present- day club, school or state leader.</li> </ul>
5.	Moses as a Leader	<ul> <li>a. The early life and call of Moses. (Exodus 1:1-3)</li> <li>b. God equips and sends Moses to lead the Israelites out of Egypt. (Exodus 4:1-17, 5:1-5; 22-33, 6:28:30, 7:7)</li> <li>c. Moses leads his people out of Egypt. (Exodus 14:1-31, 32:1-14, Numbers 13:1-33, 14:1-19)</li> </ul>	<ul> <li>Students are to list Moses's leadership qualities and show how he used them.</li> <li>Compare Moses leadership style with that of a leader with whom they are familiar.</li> </ul>
6.	Joshua as a Leader	<ul> <li>a. Joshua is chosen and equipped to lead Israel. (Numbers 13:16, 14:10, 27:15-23)</li> <li>b. Deborah as a Leader; Deborah leads the people to victory. (Judges 4:1-24)</li> </ul>	Discuss the advantages and disadvantages that those who succeed great leaders have.
7.	Guidance	<ul> <li>a. God guided the people of Israel. (Exodus 13:17-22, Joshua 8:1-22).</li> <li>b. God guided His people today through the teaching of Jesus Christ in the Bible. (Hebrews 1:1, Matthew 11:27-30)</li> </ul>	<ul> <li>The students are to discuss various factors that help in decision making.</li> <li>Discuss various ways in which God</li> </ul>

8.	Protection	<ul> <li>a. God's protection over the Israelites (Exodus 14:10-30,)</li> <li>b. God's protection over individual (Daniel 6:16-23)</li> <li>c. God's protection available for all people at all times. (Psalm 91)</li> </ul>	guided His people in the past and today.  Discuss the significance of identity cards in the society.  Identify incidents that illustrate God's protective powers in the passages.
9.	Provisions	a. God provided for his people:  - Food (Exodus 16:1-21) - Water (Exodus 17:1-7) - Light for night journey (Exodus 13:20-22) - Shade for sunny days journey (Exodus 13:20-22) b. God provided sustenance for Elijah and Zarephath widow during drought (I Kings 17:1-16). c. God requires our obedience to effect his provisions - Abraham (Genesis 22:1-13) - Elijah (I Kings 17:10-16) - Israelites (Exodus 16:19) - Zarephath widow (I Kings 17:10-16) d. Why provision were stopped (Joshua 5:11-12, I Kings 4:1-6)	Discuss the basic needs of man and how God provides for them.     Outline the conditions laid down by God for giving provisions.
10.	Parental Responsibility	a. The irresponsible behaviour of Eli and the sons (I Samuel 2:12-25)	Discuss the misbehaviour of the children of Eli and

		<ul> <li>b. The irresponsible behaviour of Samuel's Sons (I Samuel 8:1-9)</li> <li>c. God's pronouncement of judgement on Eli and his Sons (1Samuel 2:27-36, 3:1-18)</li> <li>d. The fulfilment of God's judgement on Eli and his family (I Samuel 4:10-22).</li> </ul>	Samuel, and God's reaction.
11.	Parental Responsibility of Asa	<ul> <li>a. King Asa pleased God. (I Kings 15:9-15)</li> <li>b. King Jehoshaphat follows his father's way of life. (I Kings 22:41- 44)</li> </ul>	<ul> <li>Discuss the role of parents in the upbringing of their children.</li> <li>Students to write an essay on how parent's ways of life influence the lifestyle of their children.</li> </ul>
12.	Revision		
13-14	Examination		

### CHRISTIAN RELIGIOUS STUDIES SS 2 SECOND TERM

WEEK	TOPIC	CONTENT	ACTIVITIES
1	Consequences of Obedience	a. Joseph was rewarded for obeying God's law (Genesis 39:7-12) b. David was rewarded for respecting a civil rule (Exodus20:13, Psalms 26:1-12) c. The three Hebrew youths escaped death for obeying God to avoid idolatry (Exodus 20:3, Daniel 3:1-30 d. Esther obeyed Mordecai (Esther 4:1-16)	<ul> <li>Cite some examples of those who obeyed God and got rewarded</li> <li>Discuss what seeming 'advantage' is given up in each case of obedience</li> </ul>
2	Consequences of Disobedience	a. Saul's disobedience (I Samuel 15:1-19)	List acts of disobedience

		<ul> <li>b. Consequences of Saul's disobedience</li> <li>Rejection as King (I Samuel 15:20-26)</li> <li>The Spirit of god left Saul (I Samuel 16:14-23)</li> <li>Saul and his son died same day (I Samuel 31;1-13)</li> </ul>	that is common among SS students.  • Discuss situations at school and home where disobedience leads to unpleasant consequences.
3	Consequences of Disobedience Continues	<ul> <li>a. Others who suffered for their disobedience</li> <li>- Disobedient Prophet (I Kings 13:11-24)</li> <li>- The Sons of Eli (I Samuel 2:22-25, 4:10-11)</li> </ul>	Distinguish     between     delayed and     immediate     consequences     of disobedience     in life today.
4	Friendship	<ul> <li>a. Meaning of Friendship</li> <li>b. Types of Friendship</li> <li>- Faithful and unconditional Friendship</li> <li>- Unfaithful and conditional Friendship</li> <li>c. The Friendship between Jesus, Martha and Mary (Luke10:32- 42)</li> <li>d. Friendship between Jesus and Lazarus (John 11:1-44)</li> <li>e. David, Saul and Jonathan (I Samuel 18:19)</li> <li>f. Characteristics of good and bad friends</li> </ul>	<ul> <li>Guides students to list examples of good and bad friends.</li> <li>Discuss types of friendships that exist among their peergroup.</li> </ul>
5	Trust in God	<ul> <li>a. David submits to the will of God (I Samuel 26:1-25, II Samuel 12:15-25)</li> <li>b. Jonah submits to the will of God (Jonah 1-2)</li> </ul>	<ul> <li>Guide students to explain the terms 'Submission' and 'Will of God'</li> <li>Guide students to debate whether David should have killed Saul or not</li> </ul>

			Students to recount the
6	The Wisdom of Solomon	<ul> <li>a. Solomon's request for wisdom of God (I Kings 3:3-15)</li> <li>b. How Solomon applied his wisdom (I Kings 3:16-23, 4:29-34)</li> <li>c. Building of the temple and its dedication (I Kings 5:1-12, 8:1-53)</li> </ul>	<ul> <li>story of Jonah</li> <li>Define the concepts 'Wisdom' and 'Decision'</li> <li>Guide students to suggest different ways of taking right decisions.</li> <li>Ask how one can get wisdom from God and other sources (James 1:5-8).</li> </ul>
7	Unwise Decision of Solomon and Rehoboam	<ul> <li>a. Solomon's unwise decision (I Kings 9:15-23, 11:1-13)</li> <li>b. Rehoboam unwise decision and its consequences (I Kings 12:1-20)</li> </ul>	<ul> <li>Mention some consequences of wrong decisions.</li> <li>Explain the relevance of going for counselling before taking major decisions.</li> <li>Video clip depicting the disastrous consequences of wrong decisions e.g. War films.</li> </ul>
8	The Effect of greed (Ahab and Gehazi)	<ul> <li>a. Meaning of Greed</li> <li>b. Ahab seizes Naboth's vineyard (I Kings 21:1-2, 16)</li> <li>c. The effects of Ahab's greed. (I Kings 21:17-29)</li> <li>d. Gehazi's greed and its consequences (II Kings 5:1-27)</li> </ul>	Lead discussion on greed and how in Nigeria it has led to massive corruption
9	The supremacy of God	<ul> <li>Definition of         Supremacy         Situation that leads to         the pronouncement of         the period of drought. (I</li> </ul>	<ul> <li>Lead the students to identify areas of religious tension in Nigeria.</li> </ul>

		Kings 16:29-34, 17:1-7, 18:1-19)  - Elijah pronounces the period f drought (I Kings 19:1-18)  - Obadiah protected the prophets of God.	<ul> <li>Discuss the courage of Elijah and Obadiah.</li> </ul>
10	Revision		
11-12	Examination		

# **CHRISTIAN REELIGIOUS STUDIES**

#### **SS 2 THIRD TERM**

WEEK	TOPIC	CONTENT	ACTIVITIES
1	Elijah at Mount Carmel	<ul> <li>a. The contest on mount Carmel (I Kings 18:20-46)</li> <li>b. Failure of Baal in the contest to the success of the true God.</li> <li>c. God's (Ark of God) supremacy over Dragon of Philistine (I Samuel 5-12)</li> </ul>	<ul> <li>Let the students describe the god or gods worshipped in their areas</li> <li>Point out the reason for the failure of Baal</li> <li>Discuss the Supremacy of God.</li> </ul>
2	Religious Reforms	a. Prevalent religious evils at the time of Josiah (II Kings 22) b. Josiah's reforms in Judah (II Kings 23:4- 14, 21-30)	
3	Religious Reforms Continues	a. Religious reforms in the North (II Kings 23:15-30) b. Some areas of religious reforms in Nigeria e.g. Removal of adulterous Priests, Pastors, Spiritualists, homosexual, lesbians, tribalism etc.	<ul> <li>Leads a discussion on areas that need reformation in the Churches and the society as a whole.</li> <li>Allow the students to examine selves to know if their religious and social lives tally with the Word of God.</li> </ul>
4	Concerns for one's Nation	a. The captivity and destruction of Jerusalem (II Kings 24; 25:1-17	<ul> <li>A paper chart containing the National Anthem and National Pledge.</li> </ul>

		<ul> <li>b. Report on the condition of the Nation. (Nehemiah 1:3</li> <li>c. The concern of Nehemiah, Ezra and Zerubabel for their Nation and their responses to the state of the Nation despite opposition (Nehemiah 1:1-11, 2:9-20, Ezra 1:5-11; 7:1-10)</li> </ul>	
5	Concerns for one's Nation continues	<ul> <li>a. Reconstruction of the Nation in the face of opposition (Ezra 4; 5:1-2, 6:13-22, Nehemiah 4:1-23)</li> <li>b. Responsibility to our Nation Nigeria</li> <li>Political and Economic stability</li> <li>Spiritual reawakening etc.</li> </ul>	Ask students to identify areas in our National life that needs to be reformed; and arouse their interest to seek the good of the country.
6	Faith in God	<ul> <li>a. The command to worship King Nebuchadnezzar's image ( Daniel3:1-7)</li> <li>b. Refusal of Shadrach, Meshach and Abednego to worship the King's image</li> <li>c. Punishment of the refusal and God's deliverance</li> <li>d. Effects of their faith and courage on the people of Babylon and Jews.</li> </ul>	Let the students identify where God gave the command not to worship other god in the Bible.
7	Faith and Power of God	<ul> <li>a. A decree to worship the King (Daniel 6:1-9)</li> <li>b. Daniel expresses his faith in God (Daniel 6:10-15)</li> <li>c. Daniel in the lion den. (Daniel 6:11-18)</li> </ul>	Lead the students to identify the circumstances under which Daniel expressed absolute faith in God.

8	True Religion and Social Justice	d. The power of God manifested (Daniel 6:19-24) e. Effects of Daniel's faith (Daniel 6:25-28) f. Qualities of Daniel (Daniel 1:3-8, 6:3- 5,10, 16:6; 22-23) a. True religion: It is not merely attending Church services, programmes and contributing to the Church. (Amos 5:21- 23, 25, 4:4-5) It demands purity of
		heart, honest desire and justice. (Amos 5:4, 14-15; 24) b. Social vices at the time of Amos (Amos 2:6-8, 4:1-2, 5:7-13)
9	True Religion and Social Justice	<ul> <li>a. Opposition against Amos by Amaziah Priest of the royal sanctuary (Amos 2:10-17)</li> <li>b. Divine judgement of the evil doers (Amos 4:2-3, 4:6-10, 5:14-20, 6, 7:16-17, 8:9-10)</li> <li>Lead students to identify social evils in Nigeria today.</li> </ul>
		<ul> <li>c. Risks often faced by those who carry out divine messages:- persecution, death, denial of promotion, loss of job etc.</li> <li>d. The need to remain steadfast.</li> </ul>
10	Divine Love	<ul> <li>a. God asks Hosea to marry Gomer a harlot and raise children by her.</li> <li>- To illustrate Israel harlotry in forsaking God and following idols (Hosea 1)</li> <li>b. The unfaithfulness of Israel to God and</li> <li>Identify Hosea's theme message.</li> <li>Explain the symbolic nature of Hosea's marriage and the significances of Israel to God and</li> </ul>

continuous love for her (Hosea 2:3) c. Israel's superficial response to God's love (Hosea 6:1-11) d. God's demands steadfast love and knowledge of Him	the names of his children.  • Lead students to respond positively to God's love before it is too late
(Hosea 6:6) e. Positive responses to God's love requires penitence (Hosea 6:1-4) f. God promises restoration for those who return to Him in repentance (Hosea 14)	

## **HISTORY**

## **SS 2 FIRST TERM**

WEEK	TOPIC/ CONTENT	ACTIVITIES
1	THE SOKOTO CALIPHATE;  - The state of Hausa land at the beginning of the 19 <sup>th</sup> century.  - The role of Islam at the beginning of 19 <sup>th</sup> century.	The teacher describes and explains the Sokoto caliphate to the students, the maps and charts are used.  The students should be able to explain introduction of the caliphate.
2	THE SOKOTO CALIPHATE CONTINUED;  - Usman Dan Fodio lived and worked in Gobir Why Sarkin Gobir and the Muslims fell out.	The teacher states and explains the circumstances that led to Usman Dan Fodio's work in Gobir. Explain why the Sarkin Gobir and the Muslims fell out.  Maps and pictures as teaching aids.  The students state and explain the reasons and why Gobir and Muslims fell out.
3	THE SOKOTO CALIPHATE CONTINUED;  The various reasons why Dan Fodio engaged or embarked on Jihad or Holy war.	The teacher states and explains the reasons why Dan Fodio embarked on jihad or Holy war.  Maps containing the movement of Dan Fodio.  Students should be able to enumerate the various reasons.
4	THE SOKOTO CALIPHATE CONTINUED;  - The birth of the Sokoto caliphate The administration of the caliphate.	How the caliphate came into existence and how it was administered are described and explained.  Teaching aids; pictures and maps.  The students should be able to describe and explain the birth and administration.
5	JIHAD- HOLY WAR;	The advantages and disadvantages of Jihad on political social and economics

	Political, social and economic impact.	are stated and explained by the teacher.
		Maps, pictures as teaching aids.
6	BORNU UNDER THE SHEHUS;  - The emergence of El-	The emergence of El-kanemi is traced and explained to the students.
	<ul> <li>kanemi.</li> <li>Rebellion and the crisis in Bornu, and invitation of El-kanemi.</li> <li>Social, political and economic development during the reign of El-kanemi.</li> </ul>	The students should be able to state and explain on the crisis, emergence and economic development of El-kanemi.
7	YORUBA LAND IN 19 <sup>TH</sup> CENTURY  - Oyo Empire and final collapse of Oyo Empire.	The students should be able to discuss, describe and explain the Oyo Empire and the final collapse. The teacher guides the students with a map representing the Oyo Empire.
8	BENIN IN 19 <sup>TH</sup> CENTURY;- The abolition of Trans-Atlantic slave trade on Benin economy in political crisis, problems of succession and emergence of weak rulers.	The students should be able to explain the factors that led to the abolition of Trans- Atlantic lave trade, Benin economy, political crisis, problems and succession- the emergence of weak leaders.
		This is done with the aid of wall charts illustrating the Benin political system.
9	THE FIRST PHASE OF BRITISH CONQUEST 1851- 1900;  - Occupation of Lagos British conquest of Benin Other interior of Yoruba land.	With the aid of maps and pictures, the teacher should explain and discuss with the students how British conquered and occupied Lagos and other areas of Yoruba land.
10	THE SECOND PHASE OF BRITISH CONQUEST OF 1900-1914; Occupation of North-Sokoto.	The students should be able to describe and explain the occupation of British occupation of North.

		Pictures and maps.
11	THE BRITISH CONQUEST CONTINUED;  - Occupation of Igbo land Reasons for occupation and impacts.	The teacher explains and describes the British occupation of Igbo land, reasons, and impacts- advantages and disadvantages to the students.  Maps/charts – aids.
12	Revision	Revision
13	Examination	Examination

# HISTORY SS 2 SECOND TERM

WEEK	TOPIC/ CONTENT	ACTIVITIES
1	THE EARLY PHASE OF BRITISH RULE 1990-1914;  - Native courts of the southern protectorate Native authority system of the North Establishment of network- roads, water ways etc.	The students should be able to discuss on the native courts and the authority of the Northern protectorate.  The teacher directs and explains the various networksroads, water ways established during the British administration of the North.  Map of the period should be used.
2	AMALGAMATION OF NIGERIA AND ITS SIGNIFICANCE	The teacher explains 1906 and 1914 events of joining or making of the state Nigeria.  A map indicating the amalgamation should be presented to the students for learning.
3	<ul><li>COLONIAL RULE;</li><li>Nature of indirect rule.</li><li>Social development and inter-group relations.</li></ul>	Indirect rule should be defined and explained by a teacher to the students. The students should define and explain indirect rule and the inter-group

		relations during the
		amalgamation.
		Maps and pictures are used as teaching materials.
4	- The role of government on the colonial economy The British policy on the economy and the effects.	The students should be able to explain the role of the British government on the economy, the British policy is examined by the teacher and explained to the students with their pictures, materials and some British currency.
5	ORIGIN OF NATIONALISM;     Definition and explanation.     Origin and early resistance to the imposition of British rule; Jaja of Opobo, Awujale of Ijebuode and Ovonrenewem of Benin.	The students should be able to define and explain the meaning of Nationalism. The teacher demonstrates before the class the resistance and imposition of British rule on the people of West Africa and people of Nigeria in particular. The names of the early nationalists mentioned.
		Maps/pictures used.
6	NATIONALISTS MOVEMENT AFTER SECOND WORLD WAR.	The activities of the nationalists are explained, formation of political parties, newspapers and conferences- 1950, 1953, 1957, etc
7	DECOLONIZATION;  - Definition - Process of decolonization and attainment of Nigerian Nationalists in the administration.	The teacher defines and explains the meaning of decolonization and the process of decolonization- the changes of the constitutional development.  The pictures of the Nationalists are used.
8	THE FIRST REPUBLIC 1960-1966; Political development.	The teacher explains the process- handing over to a Nigerian, the seat of government, challenges of democracy.

		Maps are used, the students should be able to explain and outline the challenges.
9	THE FIRST REPUBLIC AND SOCIAL ECONOMIC DEVELOPMENT;  Concept of mixed economy and national development plan.	The teacher explains the economic philosophy of the government and expansion of social services communication.  Map of Nigeria is used.
10	1966 COUP D' ETAT AND THE NIGERIAN CIVIL WAR CONTINUED; The causes of the war.	Explanation and stating the causes of the war.  Display of relics of war as teaching aids.
11	1966 COUP D' ETAT AND THE NIGERIAN CIVIL WAR CONTINUED; The socio-political and economic effects on women and children.	Description and explanation of the socio-political and economic effects on women and children. Pictures of those suffering in war are displayed for teaching.
12	Revision	Revision
13	Examination	Examination

## HISTORY

#### **SS 2 THIRD TERM**

WEEK	TOPIC/ CONTENT	ACTIVITIES
1	THE MILITARY RULE AND RECONSTRUCTION IN NIGERIA;  - The nine point program of Yakubu Gowon Achievements and failure of the Gowon regime.	The teacher explains the Gowon's coming into power, the nine point programs and states and explains the achievements and failures of the regime.
		Pictures of the road maps of the reconstruction will be used.
		The students explain and mention the achievements and failures of the regime.
2	THE MILITARY RULE CONTINUED;	The teacher states and explains the factors that led to 1975 coup, the land use decree- land tenure system,

	<ul> <li>Factors that led to the 1975 coup.</li> <li>The land use decree</li> <li>The structure of the administration/indigenization programme.</li> </ul>	the structure of the regime and the indigenization programme.  Pictures and land maps are used.  The students are permitted individually to explain them.
3	<ul> <li>THE SECOND REPUBLIC 1979;</li> <li>1979 republican constitution.</li> <li>Presidential system.</li> <li>Socio economic programmes.</li> </ul>	The teacher discusses the difference between the first and the second republic, the problems of economy and the introduction of presidential system of government.  Teaching aids; copy of the 1979 constitution calendar of the executive etc.
		Students differentiate the republic and discuss the programmes – 1979's.
4	THE SECOND REPUBLIC 1979 CONTINUED;- Federal character and federal structure Adoption of bicameralism. Practice of multi- party democracy.	The teacher with the aid of maps and charts for bicameral structure, explain the federal character, federal structure and the nature of multi-party democracy- explain what party and democracy means.  Students explain individually.
5	THE RETURN OF THE MILITARY;  - The factors that led to 1983 coup The programmes of the regime and the anticorruption programme-Buhari/Idiagbon regime.	The teacher outlines the factors that led to the return of the Military- 1983, the collapse of economy constitutional crisis and social breakdown. With the aid of newspaper cutting and video clips of activities. Discus about war against indiscipline.  The students explain on the WAI.
6	THE RETURN OF THE MILITARY CONTINUED; - Economic Policy of 1983	The teacher discusses on the economic policy of 1983,

7	- Implications.  IBRAHIM BABANGIDA REGIME 1985-1993;-  - Structure of the regime and transition programme.	advantages and disadvantages.  Aids; maps/pictures  The students are made to state and explain the various merits and demerits of the 1983 economic policy.  The teacher enumerates on the Babangida programme; military president, supreme military council.  Transition programme and the regime conceptualization of
8	IBRAHIM BABANGIDA REGIME 1985-1993 CONTINUED;-  - Socio-economic programme of the regime - Women empowerment	democracy.  Map of Nigeria showing the new state structure of 1993.  The students individually outline the structures of the regime.  The teacher discusses on the economic conditions of 1993 and women empowerment programme.  Teaching materials;
9	THE CHALLENGES OF DEMOCRACY-	government policy papers/maps.  The students explain the economic and women programmes.  The teacher defines democracy and discusses it under military interruption of
	The governance;  - Interim National Government The return of the military 1993-1998.	the government, in turn, the teacher with the aid of map and pictures explains on the military return of 1993-1998.  The students explain what they understand by interim government.

10	THE CHALLENGE OF DEMOCRATIC GOVERNMENT CONTINUED  The policies and implementation of the 1993-1998 return of the military.	The teacher takes comparative analysis of the 1999 constitution with the previous constitution and discusses the economic policies paying attention to; liberalization of the economy.  Material aids; charts/maps/pictures.  The students are guided to identify the differences in the various constitutions.
11	<ul> <li>THE TRANSITION; FOURTH REPUBLIC;</li> <li>Constitutional conference and policy thrust of the fourth republic.</li> <li>The 1999 constitution and the commencement of the fourth republic.</li> </ul>	The teacher explains the events leading to the emergence of the Abdulsalam Abubakar's transition.  The 1999 constitution in focus, the economic policy and social policies of the fourth republic.  Maps and pictures are used.  Students explain extensively on the fourth republic.
12	Revision	Revision
13	Examination	Examination

# SENIOR SECONDARY (SCIENCE)

## BIOLOGY SS 2 FIRST TERM

WEEK	TOPIC	CONTENT	ACTIVITIES
1.	DIGESTIVE SYSTEM	i). Modification of the feeding habits; filter feeders;- fluid feeders,- insects feeders;- parasitic and saprophytic feeders ii) feeding in protozoa and hydra etc. iii). feeding in mammals; iv). modification of pests to effect digestive function of man, dog, rabbits etc.	i) Use the specimens and charts of the digestive system of housefly, butterfly, cockroach, tapeworm sheep or dog to illustrate different types of feeding mechanism ii) students should observe provided specimens noting the various modification found in the animals
2.	TRANSPORT SYSTEM	Definition of transport system; importance of diffusion osmosis to transport system; transport system in large organisms (plants and animals); importance of transport system; materials for transport structures of arteries, veins, vascular bundles	i)set up an experiment on rate of diffusion of a colored liquid. ii)students to observe and record the time taken by the colored
3.	TRANSPORT SYSTEM CONTINUES	i)media of transportation e.g blood, latex, cell, sap, cytoplasm e.t.c ii) components and structure of blood;- white blood, red blood cells, platelets and plasma	i)instruct students to detach, the leaves of pawpaw, cassava, allemande or robber ii)observe and make inference on the materials the plants detached above
4.	TRANSPORT SYSTEM CONTINUES	Mechanism of transport in i)simple organism; multicellular, organism; higher plants and animals; higher; asopthon and transportation of waters and mineral salts	i)explain the structure of artery vein using well drawn diagrams
5.	RESPIRATORY SYSTEM	i) Types of respiratory system; body surface respiration, Gill system; trached system; lungs	i) Display the Gills remove from a dead tilapia for students to observe the various structures. ii)students to observe the gill flakes, gill arch and gill filaments
6.	RESPIRATORY SYSTEM CONTINUES	i) Mechanism of respiration in higher animals (inhalation and	i). Mouth prepared slides showing respiratory organs of the earthworm,

7.	EXCRETORY SYSTEM	i). Contractive vacuoles, flame cell, malpighian tubules, kidneys, stomata and lenticels	tilapia, toad, grasshopper and rats. ii). Observe that respiratory organs of various animals i). ask students to observe malpighian tubules in a dissected cockroach and rat ii). Students to observe and saw malpighian tubule and the excretory system in rat and record their observations.
8.	NUTRIENT CYCLING IN NATURE	i). Definition of nutrient cycling e.g. carbon cycle, oxygen and water cycle ii). Representation and processes of each of the nutrient cycle listed above iii). Importance of nutrient cycle to plants, animals and man iv). Carbon-oxygen balance	Lead students to perform experiment to show absorption of carbon dioxide and release of oxygen during photosynthesis ii) draw the carbon cycle and water cycle
9.	DECOMPOSITI ON IN NATURE ECOLOGICAL MANAGEMENT: TOLERANCE	i). Micro and macro decomposers ii). Importance and roles of decomposers to man iii). Concept of minimum and maximum of tolerance. iv). Geographic range-graph illustrating maximum and minimum range tolerance.	i). The teacher shall mount experiment to show that carbon dioxide, ammonia are released during decomposition ii). Show through experiment that heat is released during decomposition iii). The students should identify the gases released during decomposition iv). To guide the student to perform experiment showing limit to tolerance v). The students shall subject the tilapia fish to different level of salt concentration and record the observation on the opercula movements
10.	ECOLOGICAL MANAGEMENT CONTINUES	i)types of association; symbiosis (mutualism), parasitism, commensalism ii) features of biological importance possessed by organisms to an association	i). Ask students to collect ticks from cows and dogs and were possible the hermit crab .ii)students collect ticks from cow and dogs

	(B) ADAPTATION	i). In form and functions; due to environmental conduction ii). Effect of water availability to adaptive modification iii). Structural adaptation of tadpole and fish to life in water iv). Structural adaptation in birds	i). Places chameleon against different back ground ii). Ask students to observe and record color change
11.	POLLUTION	i). Atmospheric pollution – nature, names, and sources of air pollution ii). Effect of air and noise pollutants iii). Water and soil pollution – types, composition and side effects	i). Lead students to an industrial estate ii). Students observe the effect of industrial waste on the environment.
12	Revision	Revision	Revision
13	Examination	Examination	Examination

# BIOLOGY SS 2 SECOND TERM

WEEK	TOPIC	CONTENT	ACTIVITIES
1.	CONSERVATION OF NATURAL RESOURCES	i). Definition ii). Needs or importance of conservation iii). Methods or ways of consenting natural resources (legislation Education, Erection of packs, and reserves). iv). Agencies responsible for conservation v). Problems associated with conservation.	i). Pass round the Law of conservation document ii). Proffer solutions to photocopy of conservation by students.
2.	PEST AND DISEASES OF CROPS	i). Definition of pest ii). Classification of pest by (a) the pest of the plants they attacks e.g. (stem borers, root feeders, leaf feeder, plants and seed feeder) ii). The animals types (invertebrates e.g. nematodes, arthropode, locust etc)	(i) the teacher together with the students should create a table showing the relationship of crop disease, their agents and method of control.

		(c) Vertebrate pests (bird) e.g.	
		gull, weaver bird, mammal e.g.	
		rodent monkey)	
3.	PEST AND	i). Life cycle and control of pest	i). Trace the life cycle
	DISEASES OF	ii). Disease caused by pest and	of some pest
	CROP	their agents e.g. viral disease, bacterial diseases and fungi	
		disease iii). Methods of pest	
		diseases control- Physical,	
		Biological and chemical	
		methods.	
4.	REPRODUCTIVE SYSTEM IN FISH AND REPTILES	<ul><li>i). Structures of male and female reproductive organ</li><li>ii). Parts and functions of male</li></ul>	i). Present to students, the dissected male and female vertebrate
		and female reproductive organ of fish and reptiles iii). Structure of male and female	showing their reproductive organs.
		gametes	
		v). Differences b/w male and	
		female reproductive organ of fish	
5.	REPRODUCTIVE	and reptiles. i). Structures of male and female	Mount fresh sperm
0.	SYSTEM IN	reproductive system	specimen from rat
	BIRD AND	ii). Parts and function of the	under a microscope.
	MAMMALS.	reproductive system.	Students to observe,
		iii). Structures and Differences of male and female gametes	draw and label the spasm cell.
		iv). Differences between male	spasifi cell.
		and female reproductive organ.	
6	DEDDODUCTIVE	i) Ctrustural differences in the	i) Mount frook an arm
6.	REPRODUCTIVE SYSTEM IN	<ul> <li>i). Structural differences in the egg of vertebrates</li> </ul>	i). Mount fresh sperm specimen from rat
	BIRD AND	ii). Tabulation and comparison of	under a microscope.
	MAMMALS	reproduction in fish, reptiles,	Students to observe,
	CONTINUES	birds and mammals.	draw and label the
			spasm cell
(B)	REPRODUCTIVE	i). Structure and function of the	i). Ask students to
	SYSTEM IN	floral parts	examine the various
	PLAITS	ii). Arrangement of the major	parts of a flower
		reproductive parts (whorls)	provided
7.	REPRODUCTIVE	i). Types of flower (ii) types of	ii). Students to point
	SYSTEM IN	ovaries (iii) important terms often	out the essential and
	PLANTS	used to study flowers e.g.	non essential parts of a
	CONTINUE	Bisexuals, mono-sexual,	flower.
		inflorescence, Regular incomplete etc.	
8.	POLLINATION IN	i). Definition and types,	i). Teacher to ask
.	PLANTS	,,, 20	students to relate the
L	<u> </u>		

		ii). Features of self pollinated flower iii). Features of cross pollinated flowers; iv). Agents of pollination – Water, wind, insect animals.	position of stigma and stamens to the type of pollination students also to examine the nature of the pollen grain.
9.	REGULATION OF INTERNAL ENVIRONMENT	i). Definition of homeostasis ii). Organs and processes involved in homeostasis iii). The structure, function and disease of kidney. Effects of kidney diseases and their possible remedies	i). Show students photographs of normal and diseased liver and kidney.
10.	THE LIVER	<ul> <li>i)The structure, function and diseases of liver</li> <li>ii). Effects of liver diseases and remedies</li> <li>iii). Processes and metabolism of deamination, and metabolism of carbohydrate and lepids.</li> </ul>	i). Make labelled diagram of the liver and the organs around it.
11.	PLANT HORMONES	i). Definition and types ii). Functions of the plant hormones iii). Effects axin on lateral development, leaf fall and initiation of adventious roots iv). Modern application of axin and other hormones, and with reference to early flowing, crop harvest and weed control etc.	i). Tabulate the list of plant hormones and their application
12.	Revision	Revision	Revision
13.	Examination	Examination	Examination

# BIOLOGY SS 2 THIRD TERM

WEEK	TOPIC	CONTENT	ACTIVITIES
1	REGULATION	i). The endocrine glands and	i). Observe the
	OF INTERNAL	its hormones	distribution of endocrine
	ENVIRONMENT	ii). Functions of the	glands on charts and
	CONTINUES	endocrine glands	photographs
	ENDOCRINE	iii). Effect of under-secretion	
	GLANDS	or over-secretion of	
		endocrine hormones	
2.	THE SKIN	i). Structure of mammalian	i). The teacher shall
		skin	mount the skin of a

		ii). Functions of the mammalian skin iii). Care of the mammalian skin	mammal on the microscope and students should observe and identify the different parts
3.	NERVOUS COORDINATION	i). Organization of the nervous system ii). The central nervous system (CNS) iii). Peripheral nervous system (PNS)	i). The students shall be asked to draw the dorsal part of the brain of rabbit and the diagram of a neurone
4.	THE CENTRAL NERVOUS SYSTEM (CNS)	<ul><li>i) Position, structure and function of the brain</li><li>ii) The position, structure and function of the spinal cord</li></ul>	i) The students shall be asked to draw and label the diagram of a simple reflex act
5.	THE PERIPHERAL NERVOUS SYSTEM (PNS)	i) The flow chart representing the different part of the P.N.S ii) The somatic NS (iii) Autonomic NS iv) Sympathetic N.S and parasympathetic N.S	i) The differences between sympathetic and parasympathetic N.S in tabular form
6.	STRUCTURE AND FUNCTION OF A NEURONE	i). Types of neuron (motor, sensory and relay) ii). Structure of a neuron. iii). Transportation of nerve impulse iv). Reflex actions voluntary actions (examples) v). Pavlov experiment on dog, food and bell	i). Guides students to perform experiment show reflex action: flicked a hand kerchief across the student eyes.
7.	SENSE ORGANS	A) Organ of smell (ii) Mechanism of smelling with the help of olfactory chemorecptor (iii) adaptation for survival e.g. animals (dog) sniff during hunting Presence of chemoreceptors in insects (butterflies). Antenna for sensing the environment. Taste buds on tongue and part played in testing. Sensory nerve ending/receptors associated with skin touch, deep pressure, heart and pain Structure of the ear and past played by the various parts.	i) Smell a released cooking gas ii) Note the area of tongue, which are sensitive to sweetness and bitterness etc

8.	SENSE ORGANS CONTINUES	i) Organs of sight (eye) and its parts ii) Functions of the different parts of the eyes iii) The role of the eyes in image formation and accommodation iv) Eye defects: Myopia, hypermetropia, presbyopia, astigmatism Eye problem/diseases: Cataract, night blindness, colour blindness etc.	i) Using model, students are made to identify the various part of the eye.
9.	ECOLOGY OF POPULATION	(a) Succession i). meaning of succession ii). Structural change in species composition, variety and increase in number iii). Primary succession in an aquatic habitat iv). Secondary succession: meaning and examples v) characteristics of a stable community (b) Overcrowding i). Population density studies and available resources ii). Importance of factors affecting population space	i) Take a the students to a nearby pond to observe colonizers  ii) Ask students from other classes to join your class and find out the effect of the increased population on students.
10.	ECOLOGY OF POPULATION CONTINUES	i) Relationship between competition and succession ii) Factors that cause overcrowding iii). Ways of avoiding overcrowding . Effect of food shortage: competition, reproduction, emigration rate	i) Observe the activities of grasshopper in two boxes
11.	BALANCE IN NATURE	i) Factors affecting population - biotic - Abiotic ii) Dynamic equilibrium in nature iii) Factors that maintain dynamic equilibrium such as availability of food Natural disaster iii) Family planning	i) Map out an area in the school ii) Plant seedling to show inter-specific and intraspecific competition iii) Display a chart showing the family planning methods

		- Natural and artificial methods of population control (sex education)	
12.	Revision	Revision	Revision
13	Examination	Examination	Examination

### CHEMISTRY SS 2 FIRST TERM

WEEK	TOPIC / CONTENT	ACTIVITIES
1	ALKANOLS	Teacher
	<ol> <li>Types and properties</li> <li>Preparation and properties of alkanols</li> <li>Industrial production of alkanols by fermentation</li> <li>Etherification</li> <li>Uses of alkanols</li> </ol>	<ol> <li>Perform experiment to show oxidation of an alkanols with KMnO<sub>4</sub></li> <li>Show action of sodium on methanol</li> <li>Show that methanol and ethanol are soluble in water</li> <li>Explains the chemical reactions of alkanols:         <ul> <li>-dehydration</li> <li>-oxidation to:</li></ul></li></ol>
2	PERIODIC TABLE  1. Periodic law  2. Blocks of elements:- Metals, non-metals, metalloids and transition metals.  3. Families: s-p-d-f (according to group I-VIII, i.e. group IA-Alkali metals, Group IIA – Alkali Earth and other family names).	Teacher: Use the periodic table template and the atomic structure of common elements to guide students to deduce the periodic law and group elements into families based on shared characteristics.  Instructional Resource:  1. Periodic table chart of elements 2. Blank periodic table template.
3	PERIODIC TABLE 4. Properties: -changes in sizes and changes down the group and across	Teacher: Initiates and guide class discussions on: -Atomic and ionic sizes -Ionization energy and electron affinity

	periods and accompanying changes in properties. 5. Diagonal relationships 6. Ionization energy and electron affinity; changes down the group and across the period	-Gradation in properties of elements down the groups and across periodsDiagonal relationships.  Instructional Resources: 1. Sodium metal 2. Magnesium ribbon 3. Aluminium metal 4. Heat source 5. Water 6. Glass trough 7. Beakers.
4	CHEMICAL REACTIONS  1. Basic concepts: Reactants, products, reaction time and reaction rate.  2. Introduction to collusion theory.	Teacher: -Guide the students to identify reactants and products of chemical reaction -Use simple experiments to illustrate:-the concept of reaction rates.  Instructional Resources:  1. Common reagents like HCI, CuSO <sub>4</sub> , NaCl, NH <sub>4</sub> OH, NH <sub>4</sub> Cl, etc.  2. Source of heat, water, test tubes and beakers.
5	CHEMICAL REACTIONS 3. Factors affecting the rate of chemical reactions: - Nature of substance -Concentration -Pressure -Temperature -Catalyst 4. Types of chemical reactions: -Endothermic reaction -Exothermic reaction	<ol> <li>Teacher:         <ol> <li>Effects of the nature of substances, concentration/pressure, temperature and catalyst on reaction rates, using simple experiments to illustrate.</li> <li>Use simple experiments also to illustrate endothermic and exothermic reactions.</li> <li>Initiate class discussion of the energy relationships in endothermic and exothermic reactions i.e. ΔG=ΔH-TΔS (graphical representations only).</li> </ol> </li> <li>Instructional Resources:         <ol> <li>Common reagents like HCl, CuSO<sub>4</sub>, NH<sub>4</sub>Cl, NaCl, NH<sub>4</sub>OH, etc.</li> <li>Heat source, water, test-tubes and beakers.</li> </ol> </li> </ol>
6	CHEMICAL REACTIONS 5. Chemical equilibrium: Introduction using simple equations; Le chatellier's principles. 6. Factors affecting equilibrium of chemical reactions: -concentration -temperature	Teacher: 1. Explain Le chatellier's principle 2. Demonstrates the effects of changes in temperature, concentration and pressure on chemical reactions. 3. Guides students to write and balance equations for chemical reactions on equilibrium.

	-pressure.	Instructional Resources:
7	MASS VOLUME RELATIONSHIPS  1. Basic concepts: -Mole, molar quantities, molalityStandard temperature and pressure (s.t.p)Relative densities and relative molar mass.	Teacher:  1. Explain the concept of mole, molar, s.t.p. relative densities and relative molecular mass etc and their units.  2. Guide students to calculate: -masses of reactants and products -number of moles of reacting substances and products.  Instructional Resources:  1. Students' textbooks and workbooks.
		2. HCl, NaOH, magnesium ribbons, copper, copper oxide, etc.
8	MASS VOLUME RELATIONSHIPS 2. Calculations involving mass and volume 3. SI units of quantities i.e. length, mass, volume etc.	Teacher: 1. Relative densities of substance: -molarity -molality -volumes of gas in chemical reactions 2. Give students practice questions 3. Mark and review students assignment 4. guide students to deduce the SI units of quantities.  Instructional Resources:
9	ACID, BASE REACTIONS  1. Common indicators and their pH ranges  2. Simple acid-base titrations.	Teacher:  1. Guides students to: -prepare standard solutions -identify appropriate indicators for acid-base titrations.  2. Display and explain the apparatus necessary for carrying out simple titrations.  3. Demonstrates the process of acid-base titration according to instructions.  4. Guide students to carry out the acid-base titration according to instructions.  5. Ensures students record properly and perform relevant calculations.  Instructional Resource:  1. Distilled water or deionized water  2. Titration apparatus. Retort stand, beaker, burettle conical falsk, pipette, white tile, etc.  3.Indicator.
		<ul><li>3.Indicator.</li><li>4. Weighing balance</li><li>5. Acids, Bases</li><li>6. Petri-dish</li></ul>

		7. Practical notebooks 8. Measuring cylinder and funnel.
10	ACID, BASE REACTIONS 3. Simple acid-base titration continued.	Teacher: Same as above. Instructional Resources: Same as above.
11	ACID, BASE REACTIONS  4. Heat of neutralization (introductory)  5. Construction of wooden retort stand.	Teacher: Make arrangement for students to visit the introductory technology workshop to construct wooden retort stands.
12	Revision	Revision
13	Examinations	Examinations
14	Examinations	Examinations

## CHEMISTRY SS 2 SECOND TERM

WEEK	TOPIC / CONTENT	ACTIVITIES
1	WATER  1. Structure of water 2. Solubility (Basic concepts: solute, solvent, solution) 3. Solubility of different substances 4. Factors that affect solubility/uses of solubility curves.	Teacher: -Perform experiment to help students to determine the solubility of substances (use sodium chloride in water at room temperature)Demonstrates the application of solubility (removal of stains from cloth using kerosene)Demonstrate the removal of hardness in water: using washing soda, boiling.  Instructional Resources: 1. Samples of hard water 2. washing soda 3. source of heat 4. sodium chloride
2	WATER 5. Hardness of water and removal of hardness 6. Purification of water 7. Municipal water supply 8. Production of distilled water	Teacher: -Explains the various stages in water treatment for consumption - Leads students on excursion to water works (observe water distillation process) -Demonstrates the laboratory distillation of water.

	1	Instructional Description
		Instructional Resources:  1. Weighing balance
		Evaporating dish     Water bath
		4. Distillation apparatus
	AID	5. Bath water
3	AIR	Teacher:
	1. Air:	Teacher should perform experiments to
	- constituents	show:
	- percentage composition	-composition of air
	2. Properties of air	- properties of air
	3. Flame	-lights the Bunsen burner, regulate the flame
		so as to produce the different zones of flame.
		-guides students to draw and label the flame
		correctly.
		Instructional Resources: -Bunsen burner
		-Sources of gas -Match stick/box
		-Water stick
		-magnesium ribbon
		-alkaline pyrogallol.
4	HYDROGEN	Teacher:
	Hydrogen:     -configuration and possible oxidation numbers	-Should guide students to write and draw the electronic configuration of hydrogenshould guide students to:
	<ul><li>-isotopes of hydrogen</li><li>-unique position of hydrogen in the periodic table</li><li>2. Laboratory preparation of</li></ul>	Name isotopes of hydrogen and write their electronic configurationExplain the unique position of hydrogen on the periodic table.
	hydrogen	· •
	3. Industrial preparation of	-Sets up apparatus for the laboratory preparation of hydrogen using an active
	hydrogen	metal (e.g. zinc) and an acid (e.g. H <sub>2</sub> SO <sub>4</sub> )
	4. Physical and chemical	-Performs simple experiments to show the
	properties of hydrogen	physical and chemical properties of hydrogen
	5. Uses of hydrogen.	-Guides class discussion of the uses of
		hydrogen.
		Instructional Resource:
		-periodic table
		-charts (hydrogen ballon, welders at work,
		etc.)
		-laboratory apparatus for the preparation of
5	OXYGEN	hydrogen.  Teacher:
3	General properties of oxygen	1. Explain the general properties of oxygen
	group	group in the periodic table
	2. The electronic structure and	2. Guides students to:
	bonding capacity of oxygen	-write and draw the electronic configuration
	Straining dapations of oxygon	of oxygen.
L		or onygon.

	3. Laboratory and industrial preparation of oxygen 4. Physical and chemical properties of oxygen 5. Reaction of oxygen (oxidation) 6. Compounds of oxygen 7. Uses of oxygen.	<ol> <li>Set up apparatus and demonstrate the laboratory preparation of oxygen using hydrogen peroxide and manganese (iv) oxide as catalyst.</li> <li>Demonstrate the test for oxygen using a glowing splint.</li> <li>Performs simple experiments to demonstrate the physical and chemical properties of oxygen.</li> </ol> Instructional Resources:
		<ol> <li>Periodic table</li> <li>Picture showing a welder at work</li> <li>Laboratory apparatus and reagents for the preparation of oxygen.</li> <li>Matches</li> <li>Splint.</li> </ol>
6	<ol> <li>HALOGENS</li> <li>Electronic configuration of halogens</li> <li>Physical properties of halogens and gradation down the group.</li> <li>Chemical properties of halogens and gradation down the group.</li> </ol>	<ol> <li>Teacher:</li> <li>Guides the students to write and draw the electronic configuration of some halogens</li> <li>Set up the apparatus and demonstrate the laboratory preparation of chlorine</li> <li>Performs simple experiments to illustrate the physical and chemical properties of halogens.</li> </ol>
		Instructional Resources: 1. Periodic table 2. Table showing physical properties of halogens and similarities among halogens 3. Litmus paper (red and blue).
7	HALOGENS 4. Compounds of halogens 5. Uses of halogens (Cl <sub>2</sub> , Br <sub>2</sub> , I <sub>2</sub> ) 6. Preparation of chlorine.	Teacher:  1. Explains the gradation of these properties down the group  2. Illustrate the bleaching action of chlorine.  3. Leads class discussion on the uses of halogens.
		Instructional Resources: 1. Water 2. Apparatus and reagents for the preparation of chlorine gas. 3. Bromine 4. Iodine.
8	NITROGEN  1. General properties of nitrogen family group V elements  2. Laboratory preparation of nitrogen.	Teacher: 1. Explains the general properties of the nitrogen family 2. Demonstrates the laboratory preparation of nitrogen.

		Instructional Resources:
		Charts tabulating the properties of
		nitrogen group, laboratory preparation of
		nitrogen, nitrogen cycle
		2. Periodic table.
9	NITROGEN	Teacher:
	1. Industrial preparation of	1. Guides students to record, observe and
	nitrogen from liquid air	draw appropriate diagrams on the laboratory
	2. Properties of nitrogen	preparation of nitrogen.
		2. Explains the industrial preparation of
		nitrogen from liquid air.
		Instructional Materials: Same as above wk.
10	NITROGEN	Teacher:
	Uses of nitrogen	Guides the students to:
	Nitrogen cycle	-find out the uses of nitrogen and their
		gradation down the group.
		-find out the use of nitrogen from text book,
		internet etc.
		Instructional Resources:
		Books, virtual libraries (internet).
11	NITROGEN	Teacher:
	1. Compounds of nitrogen:	Guides the students to:
	a. oxides of nitrogen	-identify and name other compounds of
	b. ammonia	nitrogen
	2. Test for ammonia.	Demonstrates the test for ammonia gas
		using:
		a. a damp red litmus paper
		b. conc. HCI
		3. Demonstrates removal of stains on wood
		work using liquid ammonia.
		Instructional Passurass.
		Instructional Resources: -Glass with grease
		-Glass with grease -Painted wood work
		-Samples of fertilizer
		-Chemicals containing nitrogen e.g. HNO <sub>3</sub> ,
		conc. HCl etc.
12	Revision	Revision
	1	
13	Examinations	Examinations

### CHEMISTRY SS 2 THIRD TERM

WEEK	TOPIC / CONTENT	ACTIVITIES
1	SULPHUR	Teacher:
	General properties of group	Explain the general properties of group VIA
	VI A elements	elements.
	2. Electronic structure of	Guide students to write the electronic
	sulphur	configuration of sulphur.
	3. Allotropes of sulphur	3. Explain the meaning of allotropy and guides
	4. Uses of sulphur	students to identify allotropes of sulphur and
		their uses.
		Instructional Resources:
		Chart showing the allotropes of sulphur
		2. Sulphur ointment
		3. Sulphur pellets or flower of sulphur
2	SULPHUR	Teacher:
	Compounds of sulphur	Guides the students to draw correctly and
	2. Industrial preparation of	explain the contact process for the manufacture
	H <sub>2</sub> SO <sub>4</sub>	of H <sub>2</sub> SO <sub>4</sub>
	3. Uses of H <sub>2</sub> SO <sub>4</sub>	Lead students on excursion to a tyre
		manufacturing industry.
		Instructional Resources:
		i. chart on the contact process for the
		preparation of H <sub>2</sub> SO <sub>4</sub>
		ii. H <sub>2</sub> SO <sub>4</sub> (car battery acid).
		iii. Matches
3	OXIDATION-REDUCTION	Teacher:
	(REDOX) REACTIONS	i. Guides students to define oxidation and
	Oxidation: definition	reduction
	2. Reduction: definition	ii. Calculate oxidation numbers, using the rules
	3. Redox Reactions	set under objectives (e.g. to calculate oxidation
	4. Oxidation numbers of	number of central atom in H <sub>2</sub> SO <sub>4</sub> , HNO <sub>3</sub> ,
	central elements in some	KClO₃) and hence give their IUPAC names.
	compounds.	Instructional Resources:
		i. Students textbooks
		ii. chalk board
		iii. flip-charts
4	OXIDATION-REDUCTION	Teacher:
	(REDOX) REACTIONS	i. Name inorganic compounds x e.g. Pb(NO <sub>3</sub> ) <sub>2</sub> ,
	Connection of oxidation	FeSO <sub>4</sub> , 7H <sub>2</sub> O, [Cu(NH <sub>3</sub> ) <sub>4</sub> ] <sup>2+</sup> etc.
	numbers with IUPAC name	ii. Identify the process of oxidation and
	Oxidizing and Reducing	reduction in a given redox reaction e.g. $-X^4+Y-$
	agents	>X <sup>2+</sup> +Y <sup>2+</sup>
	3. Redox equation	iii. Write the formula of a compound giving its
		IUPAC name e.g. iron(II) trioxosulphate (iv).

		-Write equations for half reactions and overall reactions using IUPAC systemBalance redox equations.
		Instructional Resources: i. Iron(ii) oxide ii. KMnO <sub>4</sub> , etc.
5	1. Electrovalent and covalent compounds. 2. Electrolytes and non-electrolytes 3. Weak and strong electrolytes 4. Electrochemical series 5. Factors affecting the preferential discharge of ions.	i. Guides students to distinguish between: -electrovalent and covalent compoundselectrolytes and non-electrolytes ii. Demonstrates experiments on: -movement of ions in solution -strong and weak electrolytes iii. Guide students in the discussion of the relationship between the nature of ions and their ranking in the electrochemical series. iv. Explain the factors affecting the preferential discharge of ions in solution.  Instructional Resources:
		<ol> <li>Samples of electrovalent and covalent compounds.</li> <li>Apparatus for electrolytes</li> <li>Sample of weak and strong electrolytes.</li> </ol>
6	ELECTROLYSIS  1. Meaning of electrolysis 2. Terminologies: -electrodes -electrolyte -electrolytic cell -electrochemical cells, etc. 3. Electrolysis of acidified water, copper (ii) sulphates (CUSO <sub>4</sub> ) and brine.	Teacher: 1. Guide students to: -define electrolysis -distinguish between strong and weak electrolytesconstruct electrolytic and electrochemical cells. 2. Demonstrates electrolytes of: -acidified water using Hoffmans' voltammeter -brine -copper sulphate.
		<ol> <li>Instructional Resources:</li> <li>An electrolytic cell apparatus</li> <li>Hoffman's voltammeter</li> <li>An electrochemical cells apparatus.</li> <li>Copper sulphate solution</li> <li>Dilute H<sub>2</sub>SO<sub>4</sub></li> <li>Brine</li> </ol>
7	ELECTROLYSIS  1. Faraday's laws of electrolysis and the calculations	Teacher:  1. Explain the Faraday's first and second laws of electrolysis  2. Demonstrate the uses of electrolysis

	2. Uses of electrolysis:	3. Guide students to calculate amount of
	purification, extraction and	substances librated or deposited at electrodes
	electroplating of metals.	during electrolysis.
		Instructional Resources:
		i. Student textbooks
		ii. Students workbook
		iii. Copper sulphate solution
8	QUANTITATIVE AND	Teacher:
	<b>QUALITATIVE ANALYSIS</b>	Carryout titrations to determine:
	1. Acid-base titrations	-percentage purity
	(neutralization) continued.	-heat of neutralization
	2. Redox titrations involving	-water of crystallization, etc.
	KMnO <sub>4</sub> , Fe <sup>2+</sup> , C <sub>2</sub> O <sub>4</sub> , I <sub>2</sub> , KI,	,
	S <sub>2</sub> O <sub>3</sub> <sup>2</sup> -	Instructional Resources:
		i. Indicator extract from flowers.
		ii. Bomb calorimeter
		iii. Relevant acids and base.
9	QUANTITATIVE AND	Teacher:
	QUALITATIVE ANALYSIS	i. Analyze substances and test for:
	Test for oxidants reductions.	-cations and anions (e.g. Fe <sup>2+</sup> , Cu <sup>2+</sup> , NH <sub>4</sub> +,
		SO <sub>4</sub> <sup>2-</sup> , SO <sub>3</sub> <sup>2-</sup> , etc.
		ii. Guides students to:
		-test for oxidants in redox reactions
		Instructional Resources:
		Relevant salts.
10	QUANTITATIVE AND	Teacher:
	QUALITATIVE ANALYSIS	Guide students to identify ions (cations and
	1. Identification of ions (Fe <sup>2+</sup> ,	anions)
	NH4+, Fe <sup>3+</sup> , Cu <sup>2+</sup> , Pb <sup>2+</sup> , etc)	, '
	chlorides nitrates, sulphates,	Instructional Resources:
	sulphide, bicarbonates,	Relevant salts.
	carbonates, sulphite, etc.	
11	QUANTITATIVE AND	Teacher:
	QUALITATIVE ANALYSIS	Guide students to:
	1. Test for hydrogen, NH <sub>3</sub> ,	-test for oxidants and reductants in redox
	HCI, NO <sub>3</sub> , Oxygen, CO <sub>2</sub> , CI	reactions
	(bleaching action)	-test for simple sugars. fats and oils, proteins,
	2. Identification of fats and	starch etc.
	oils, simple sugar, proteins,	
	starch.	Instructional Resources:
		-Relevant salts.
		-Starch, fats and oils, proteins etc.
12	Revision	Revision
13	Examinations	Examinations
14	Examinations	Examinations
		1

## **PHYSICS**

## **SS 2 FIRST TERM**

WEEK	TOPIC/ CONTENT	ACTIVITIES
1	HEAT ENERGY	Project: Teacher to guide students on
	-Temperature and its measurement	calibration of a thermometer in
	-Types of thermometer	Celsius scale.
	-Absolute scale of temperature	
2	HEAT ENERGY MEASUREMENT	The teacher leads the students on
	-Concept of specific heat capacity	how to determine the specific heat
	i) Its measurement	capacity of
	ii) Its significance	-A solid
	, ,	-Liquid, using method of mixture
3	HEAT ENERGY MEASUREMENT	The teacher guides the students on
	-Latent heat	the determination of the specific
	-Evaporation, boiling and	latent heat of fusion of ice/specific
	sublimation	latent heat of vaporization of steam
	-Relative humidity and due point	by method of mixtures
4	GAS LAWS	The teacher to demonstrate Boyle's
	-Measurement of gas pressure	law using Boyle's law apparatus.
	-Barometers in practical use	
	-Boyle's Law and its application	
	-Charles Law and its application	
	-The pressure law	
	-The general gas law	
5	PRODUCTION AND	-Students to generate mechanical
	PROPAGATION OF WAVES	waves using ropes and springs.
	-Production of mechanical waves	-The teacher to set up the ripple tank
	-Pulsating system	and demonstrate how it is used to
	i) Energy transmitted with definite	generate various waves
	speed, frequency and wave length	
	-Wave form	
	i) Description and graphical	
	representation	
	-Mathematical relationships among:	
	f, λ, T and V	
6	TYPES AND PROPERTIES OF	The teacher to use the ripple tank to
	WAVES	demonstrate the interference of water
	-Longitudinal waves	waves.
	-Transverse waves	
	-Wave equation:	
	$Y = A\sin(wt-2\pi x/\lambda)$	
	-Properties of waves:	
	Reflection, Refraction, Diffraction,	
7	Interference, Polarization	Duningto Charles to to a control of
7	LIGHT WAVES	Project: Students to be guided on
	-Sources of light	how to construct a pinhole camera
ĺ	-Light and matter	

	-Transmission of light shadows,	
	Eclipse, the pinhole camera	
8	LIGHT WAVES	Project: Students to construct a
	-Reflection of light at plane and	simple periscope.
	curved surfaces	Teacher to guide the students on the
	-Laws of Reflection	determination of the focal length of a
	-Formation of images by plane and	concave mirror.
	curved mirrors	
	-Application of plane and curved	
	mirrors	
9	LIGHT WAVES	Teacher to lead the students to verify
	-Refraction of light through	Snell's law using a rectangular glass
	rectangular glass block	block
	-Laws of refraction	
	-Real and apparent depth	
	-Total internal reflection	
	-Critical angle	
10	LIGHT WAVES	Teacher to guide the students to
	-Refraction of light through	verify Snell's law using triangular
	triangular glass block	glass block
	-Angle of minimum deviation	
	-Totally reflecting prisms	
11	LIGHT WAVES	The teacher to demonstrate the
	-Dispersion of white light	dispersion of light by a triangular
	-Refraction of light through	glass prism
	converging and diverging lenses	The teacher to lead the students to
	-Images formed by lenses	verify the lens formula using
		illuminated object
12	APPLICATION OF LIGHT WAVES	Project: Teacher to guide the
	-Simple camera and film projector	students to construct a simple box
	-The human eye	camera
	-The simple microscope and	
	compound microscope	
	-Telescope	
	-Prism binoculars	
13	REVISION	
14	EXAMINATION	

## **PHYSICS**

## **SS 2 SECOND TERM**

WEEK	TOPIC/ CONTENT	ACTIVITIES
1	SOUND WAVES	The teacher guides students to
	-Sources of sound	demonstrate that sound does not
	-Transmission of sound	travel in a vacuum by using the
	-Speed of sound in solid, liquid,	electric bell enclosed in a bell jar
	and gas	<b>,</b>
	-Characteristics of sound	
2	SOUND WAVES	The teacher guides students to
	-Noise and music	demonstrate forced vibration with the
	-Forced vibration-Resonance,	resonance tubes and sonometer.
	harmonics and overtones	
	-Stationary waves	
3	APPLICATION OF SOUND	Project: Teacher to guide the students
	WAVES	on how to construct any local musical
	-Vibrations in strings and pipes	instrument of their choice
	-Wind instruments	
	-String instruments	
	-Percussion instruments	
	-Echoes and their application	
	-Hearing aids	
4	MOLECULAR THEORY OF	Using a small open can, teacher
	MATTER	should demonstrate increase of
	-Pressure in fluids	pressure with depth
	i) Concept of pressure	
	ii) Pressure in liquids	Project: Teacher to guide the students
	iii) Atmospheric pressure	to construct a hydraulic press
	-Applications of atmospheric and	
	gas pressure	
	-Pascal's Principle	
5	ELECTROMAGNETIC WAVES	The teacher leads the students on
	-Electromagnetic spectrum	different types of radiation in
		electromagnetic spectrum
6	GRAVITATIONAL FIELD	The teacher discuss the movement of
	-Gravitational force between two	the planets in the solar system using
	masses (Newton's law of	a chart
	universal gravitation)	
	-"G" as a universal constant	
	-Gravitational potential	
	-Escape velocity	
7	GRAVITATIONAL FIELD	The teacher to show films on the
	-Solar system	launching of satellite
	-Kepler's laws	
	-Natural and artificial satellites	
8	ELECTRIC FIELDS	The teacher leads the students on
		how to arrange cells in series and in

12	Examination	Examination
11	Revision	Revision
10	-Shunts and multipliers (Galvanometer conversions) -Principle of the potentiometer -Wheatstone bridge -Meter bridge	The teacher guides the student on how to set up potentiometer circuit and calibrate it.
9	ELECTRIC FIELDS -E.m.f of a cell -Internal resistance of a cell -Standard resistors and rheostats -Resistivity and conductivity	The teacher to guide the students on the use of potentiometer wire to: i) Measure e.m.f ii) Compare the values of two e.m.f
	-Production of continuous charges: primary cells, secondary cells -Electric Circuit: series and parallel arrangement of cells and resistors	parallel and determine the resultant e.m.f

## **PHYSICS**

## **SS 2 THIRD TERM**

WEEK	TOPIC/ CONTENT	ACTIVITIES
1	ELECTRIC FIELD -Electrical conduction through liquids(Electrolysis) i) Electrolytes and non-electrolytes ii) Dynamics of charged particles(ions) in electrolytes iii) Voltameter iv) Examples of electrolysis -Faraday's law of electrolysis	The teacher leads the students to identify solutions that conduct electricity and those that do not
2	-Applications of electrolysis  ELECTRIC FIELD -Conduction of electricity through gases -Hot cathode, thermionic emission -The diode valve -Application of hot cathode(thermionic) emission i) Cathode-ray oscilloscope	The teacher to lead discussion on how the reduction in pressure of a gas in a suitable container is applied in the fluorescent tube and cathode ray oscilloscope
3	ELECTRIC FIELD -Electric force between point charges(coulomb's law)	The teacher guides the students on how to calculate the electric force between two points

4	-Concept of electric field i) Electric field intensity ii) Electric potential  ELECTRIC FIELD	charges in free space and to compare this force with the gravitational force between two protons  The teacher leads the students
	-Capacitors and Capacitances i) Definition ii) Arrangement of capacitors -Energy stored in a capacitor -Application of capacitors	to determine the equivalent capacitance for; series and parallel arrangement of capacitors
5	MAGNETIC FIELD  -Concept of magnetic field i) Properties of magnet ii) Magnetic flux and flux density  -Magnetic field around: i) A bar magnet ii) A straight conductor carrying current iii) A solenoid  -Methods of making magnets  -Methods of demagnetization	The teacher demonstrate how to distinguish between magnetic and non-magnetic materials
6	MAGNETIC FIELD  -Magnetic properties of iron and steel -Magnetic screening or shielding -Electromagnets and application of electromagnet -Temporary magnet i) The electric bell ii) Telephone earpiece, etc	The teacher guides the students on how to investigate the field around a conductor by using a compass needle and iron fillings
7	MAGNETIC FIELD  -The earth's magnetic field i) Magnetic elements of a place *Angle of declination *Angle of dip *Horizontal component of the earth's magnetic field -Bar magnet in earth's field: Neutral point -Mariner's compass	The teacher leads the students on how to suspend a bar magnet horizontally and locate the earth's N-S direction
8	ELECTROMAGNETIC FIELD  -Magnetic force on a charge moving in a magnetic field  -Concept of electromagnetic field  -Interaction between magnetic field and currents in:  i) A current –carrying wire in a magnetic field;  ii) A current-carrying solenoid in a magnetic field  -Applications of electromagnetic field:	The teacher guide the students to investigate the effect of passing current through a solenoid in a magnetic field

	i) Electric motor ii) Moving coil galvanometer	
9	ELECTROMAGNETIC FIELD -Electromagnetic induction -Faraday's law -Lenz's law -Motor generator effect -Eddy currents	The teacher guide the students to investigate the effect of rotating wire in magnetic field
10	ELECTROMAGNETIC FIELD  -The transformer -Power transmission -The induction coil	The teacher guides the students to investigate the effect of moving a magnet in a solenoid or coil carrying current near a solenoid
11	Revision	Revision
13	Examination	Examination

### **ELECTIVES**

# AGRICULTURAL SCIENCE SS 2 FIRST TERM

WEEK	TOPIC / CONTENT	ACTIVITIES
1	Agricultural Laws and Reforms Land ownership and tenure systems in Nigeria	State the different land tenure systems in Nigeria.
2	Land Use Act of Nigeria Land use Act of 1978: i. Features of the Act ii. The need for government to enforce the law etc.	State and explain the different laws on land with emphasis on land use Act of 1978
3	Role of Government in Agricultural Production Role of government in Agricultural production e.g.  - Making of agricultural policies - Drawing of agricultural programmes - Provision of loan and subsidies - Provision of agricultural education etc.	Class discussion
4	Forest Management Forest management techniques: - Forest regulation	Students should visit forest reserves

	<ul> <li>Selective exploration</li> </ul>	
	<ul> <li>Deforestation</li> </ul>	
	<ul> <li>Regeneration</li> </ul>	
	- Afforestation	
	- Taungya system	
5	Diseases of crops	i. Diseased crop items should be
	Diseases of major crops: e.g.	observed to identify some crop diseases
	i. Cereals-smut, rice blast,	ii. field observation and identification of
	, , , , , , , , , , , , , , , , , , , ,	
	leaf rust	different types of crop diseases and
	ii. Legume-cercosporal leaf	mouldy grains in storage.
	spot, rosette	
	iii. Beverages-cocoa	
	blackpod, coffee leaf rust	
	iv. Tuber – cassava mosaic	
	virus, bacterial blight. etc.	
6	Symptoms and economic	Describe the disease symptoms and
_	importance of crop diseases	damage done to crops
	i. Symptoms of diseases: e.g.	damage dene to erope
	spots, yellowing, rots,	
	wilting, stuntedness etc.	
	ii. Economic importance: e.g.	
	increase cost of production,	
	reduces quality of crops,	
	reduces farmers income	
	etc.	
<u> </u>		
7	Preventive and Control Measures	i. State the control measures
7		i. State the control measures
7	Preventive and Control Measures	i. State the control measures     ii. Identify some chemicals used
7	Preventive and Control Measures of diseases	
7	Preventive and Control Measures of diseases Preventive and control measures: - Cultural methods	
7	Preventive and Control Measures of diseases Preventive and control measures: - Cultural methods - Biological methods	
	Preventive and Control Measures of diseases Preventive and control measures: - Cultural methods - Biological methods - Chemical methods	ii. Identify some chemicals used
8	Preventive and Control Measures of diseases Preventive and control measures: - Cultural methods - Biological methods - Chemical methods Pests of crops	ii. Identify some chemicals used  i. Students should collect and preserve
	Preventive and Control Measures of diseases Preventive and control measures: - Cultural methods - Biological methods - Chemical methods Pests of crops Important insect pests of major crops:	ii. Identify some chemicals used
	Preventive and Control Measures of diseases Preventive and control measures: - Cultural methods - Biological methods - Chemical methods Pests of crops Important insect pests of major crops: i. Cereal – System borer,	ii. Identify some chemicals used     i. Students should collect and preserve some insect pests
	Preventive and Control Measures of diseases Preventive and control measures: - Cultural methods - Biological methods - Chemical methods Pests of crops Important insect pests of major crops: i. Cereal – System borer, army-worm, ear-worm	ii. Identify some chemicals used  i. Students should collect and preserve
	Preventive and Control Measures of diseases Preventive and control measures: - Cultural methods - Biological methods - Chemical methods  Pests of crops Important insect pests of major crops: i. Cereal – System borer, army-worm, ear-worm ii. Legume – pod borer,	ii. Identify some chemicals used     i. Students should collect and preserve some insect pests
	Preventive and Control Measures of diseases Preventive and control measures: - Cultural methods - Biological methods - Chemical methods  Pests of crops Important insect pests of major crops: i. Cereal – System borer, army-worm, ear-worm ii. Legume – pod borer, aphids, sucki bugs, leaf	ii. Identify some chemicals used     i. Students should collect and preserve some insect pests
	Preventive and Control Measures of diseases Preventive and control measures: - Cultural methods - Biological methods - Chemical methods  Pests of crops Important insect pests of major crops: i. Cereal – System borer, army-worm, ear-worm ii. Legume – pod borer, aphids, sucki bugs, leaf beetle	ii. Identify some chemicals used     i. Students should collect and preserve some insect pests
	Preventive and Control Measures of diseases Preventive and control measures: - Cultural methods - Biological methods - Chemical methods  Pests of crops Important insect pests of major crops: i. Cereal – System borer, army-worm, ear-worm ii. Legume – pod borer, aphids, sucki bugs, leaf beetle iii. Beverage – cocoa myrids	ii. Identify some chemicals used     i. Students should collect and preserve some insect pests
8	Preventive and Control Measures of diseases Preventive and control measures: - Cultural methods - Biological methods - Chemical methods  Pests of crops Important insect pests of major crops: i. Cereal – System borer, army-worm, ear-worm ii. Legume – pod borer, aphids, sucki bugs, leaf beetle iii. Beverage – cocoa myrids (capsids)	ii. Identify some chemicals used  i. Students should collect and preserve some insect pests  ii. Definition of pest
	Preventive and Control Measures of diseases Preventive and control measures: - Cultural methods - Biological methods - Chemical methods  Pests of crops Important insect pests of major crops: i. Cereal – System borer, army-worm, ear-worm ii. Legume – pod borer, aphids, sucki bugs, leaf beetle iii. Beverage – cocoa myrids	ii. Identify some chemicals used     i. Students should collect and preserve some insect pests
8	Preventive and Control Measures of diseases Preventive and control measures: - Cultural methods - Biological methods - Chemical methods  Pests of crops Important insect pests of major crops: i. Cereal – System borer, army-worm, ear-worm ii. Legume – pod borer, aphids, sucki bugs, leaf beetle iii. Beverage – cocoa myrids (capsids)	ii. Identify some chemicals used  i. Students should collect and preserve some insect pests  ii. Definition of pest
8	Preventive and Control Measures of diseases Preventive and control measures: - Cultural methods - Biological methods - Chemical methods  Pests of crops Important insect pests of major crops: i. Cereal – System borer, army-worm, ear-worm ii. Legume – pod borer, aphids, sucki bugs, leaf beetle iii. Beverage – cocoa myrids (capsids)  Other important pests	i. Students should collect and preserve some insect pests  ii. Definition of pest  Observe some damaged crops by
8	Preventive and Control Measures of diseases Preventive and control measures: - Cultural methods - Biological methods - Chemical methods - Chemical methods  Pests of crops Important insect pests of major crops: i. Cereal – System borer, army-worm, ear-worm ii. Legume – pod borer, aphids, sucki bugs, leaf beetle iii. Beverage – cocoa myrids (capsids)  Other important pests Other important pests e.g.	i. Students should collect and preserve some insect pests  ii. Definition of pest  Observe some damaged crops by
8	Preventive and Control Measures of diseases Preventive and control measures: - Cultural methods - Biological methods - Chemical methods  Pests of crops Important insect pests of major crops: i. Cereal – System borer, army-worm, ear-worm ii. Legume – pod borer, aphids, sucki bugs, leaf beetle iii. Beverage – cocoa myrids (capsids)  Other important pests Other important pests e.g Birds - Rodents	i. Students should collect and preserve some insect pests  ii. Definition of pest  Observe some damaged crops by
8	Preventive and Control Measures of diseases Preventive and control measures: - Cultural methods - Biological methods - Chemical methods - Chemical methods  Pests of crops Important insect pests of major crops: i. Cereal – System borer, army-worm, ear-worm ii. Legume – pod borer, aphids, sucki bugs, leaf beetle iii. Beverage – cocoa myrids (capsids)  Other important pests Other important pests e.g Birds - Rodents - Man	i. Students should collect and preserve some insect pests  ii. Definition of pest  Observe some damaged crops by
8	Preventive and Control Measures of diseases Preventive and control measures:	i. Students should collect and preserve some insect pests  ii. Definition of pest  Observe some damaged crops by
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8	Preventive and Control Measures of diseases Preventive and control measures:	i. Students should collect and preserve some insect pests  ii. Definition of pest  Observe some damaged crops by

	- Destruction of root/tubers	
10	Economic importance of selected pests  i. Economic importance of pests e.g.  - reduction in quality of crops  - reduction in quantity of crops  - makes vegetables unattractive and unmarketable etc.  ii. Preventive and control measures:  - cultural methods  - biological methods  - chemical methods  iii. Side effects of the various preventive and control methods:  - chemical pollution, poisoning etc.	Use sprayers and insecticides to control pests in the field.
11	Pasture and forage crops Morphology of the common grass and legume species of Nigerian pastures	Each student to collect a pasture and legume crop (a grass and a legume)
12	Types of Pastures	Prepare a pasture/forage album.
	<ul> <li>i. Types of pastures: permanent pasture, rotational pasture, temporary pasture, irrigated pasture.</li> <li>ii. Factors affecting pasture: <ul> <li>Establishment</li> <li>Distribution</li> <li>Productivity</li> </ul> </li> <li>iii. Management practices of a pasture land.</li> </ul>	
13	pasture, rotational pasture, temporary pasture, irrigated pasture. ii. Factors affecting pasture:	Revision Examination

# AGRICULTURAL SCIENCE SS 2 SECOND TERM

WEEK	TOPIC / CONTENT	ACTIVITIES
1	Range Management and Improvement	State importance of rangeland to
	i. Definition of rangeland	livestock production.
	ii. Importance of rangeland	
	iii. Characteristics of rangeland	
2	Rangeland Improvement	Describe the methods of
	Methods of rangeland improvement:	improvement
	<ul> <li>Controlled stocking</li> </ul>	
	<ul> <li>Rotational grazing</li> </ul>	
	<ul> <li>Use fertilizers</li> </ul>	
	<ul> <li>Reseeding etc.</li> </ul>	

2	Animal Nutrition	Callest and identify complete of
3		Collect and identify samples of
	i. Definition and meaning of	feeding stuff.
	nutrition	
	ii. Sources and functions of	
	nutrients e.g. carbohydrates,	
	fats, minerals, vitamins, water	
	and proteins.	
4	Rations	Students should feed animals on the
	i. Types of ration: balanced	farm using various feeds.
	ration etc.	
	ii. Malnutrition	
	iii. Effects of malnutrition	
5	Environmental factors affecting	Grow plants under different
	Agricultural Production	conditions of moisture and light, for
	Climatic factors: rainfall, temperature,	comparison purpose.
	light, and wind.	a superior parkets.
6	Biotic factors affecting agricultural	Grow plants under different
	production	conditions of moisture and light, for
	Biotic factors: predator, parasites, soil	comparison purpose.
	micro organisms, pests and disease	a simpanion parpage.
	organisms etc.	
7	Edaphic Factors affecting agricultural	Grow plants under different
•	production	conditions of moisture and light, for
	Edaphic facrors: soil types, soil PH, soil	comparison purpose.
	texture etc.	Companion purpose.
	textare etc.	
8	Plant nutrients	Prenare water/sand culture to
8	Plant nutrients  Definition of micro and macro	Prepare water/sand culture to
8	i. Definition of micro and macro	demonstrate deficiency of various
8	<ul> <li>Definition of micro and macro nutrients, functions and</li> </ul>	•
	<ul> <li>Definition of micro and macro nutrients, functions and deficiency symptoms.</li> </ul>	demonstrate deficiency of various
9	i. Definition of micro and macro nutrients, functions and deficiency symptoms.  Factors influencing availability of	demonstrate deficiency of various
	i. Definition of micro and macro nutrients, functions and deficiency symptoms.  Factors influencing availability of nutrients	demonstrate deficiency of various
	i. Definition of micro and macro nutrients, functions and deficiency symptoms.  Factors influencing availability of nutrients Factors: soil PH, excess of other	demonstrate deficiency of various
	i. Definition of micro and macro nutrients, functions and deficiency symptoms.  Factors influencing availability of nutrients Factors: soil PH, excess of other nutrients, leaching, crop removal,	demonstrate deficiency of various
9	i. Definition of micro and macro nutrients, functions and deficiency symptoms.  Factors influencing availability of nutrients  Factors: soil PH, excess of other nutrients, leaching, crop removal, oxidation etc.	demonstrate deficiency of various elements in different crops.
	i. Definition of micro and macro nutrients, functions and deficiency symptoms.  Factors influencing availability of nutrients Factors: soil PH, excess of other nutrients, leaching, crop removal, oxidation etc.  Methods of replenishing plant	demonstrate deficiency of various
9	i. Definition of micro and macro nutrients, functions and deficiency symptoms.  Factors influencing availability of nutrients  Factors: soil PH, excess of other nutrients, leaching, crop removal, oxidation etc.  Methods of replenishing plant nutrients in the soil	demonstrate deficiency of various elements in different crops.
9	i. Definition of micro and macro nutrients, functions and deficiency symptoms.  Factors influencing availability of nutrients Factors: soil PH, excess of other nutrients, leaching, crop removal, oxidation etc.  Methods of replenishing plant nutrients in the soil Methods of replenishing plant nutrients:	demonstrate deficiency of various elements in different crops.
9	<ul> <li>i. Definition of micro and macro nutrients, functions and deficiency symptoms.</li> <li>Factors influencing availability of nutrients</li> <li>Factors: soil PH, excess of other nutrients, leaching, crop removal, oxidation etc.</li> <li>Methods of replenishing plant nutrients in the soil</li> <li>Methods of replenishing plant nutrients:         <ul> <li>Rotational cropping,</li> </ul> </li> </ul>	demonstrate deficiency of various elements in different crops.
9	i. Definition of micro and macro nutrients, functions and deficiency symptoms.  Factors influencing availability of nutrients Factors: soil PH, excess of other nutrients, leaching, crop removal, oxidation etc.  Methods of replenishing plant nutrients in the soil Methods of replenishing plant nutrients:  - Rotational cropping, organic manuring,	demonstrate deficiency of various elements in different crops.
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9	i. Definition of micro and macro nutrients, functions and deficiency symptoms.  Factors influencing availability of nutrients Factors: soil PH, excess of other nutrients, leaching, crop removal, oxidation etc.  Methods of replenishing plant nutrients in the soil Methods of replenishing plant nutrients:  - Rotational cropping, organic manuring, inorganic manuring, fallowing, liming, cover	demonstrate deficiency of various elements in different crops.
9	i. Definition of micro and macro nutrients, functions and deficiency symptoms.  Factors influencing availability of nutrients Factors: soil PH, excess of other nutrients, leaching, crop removal, oxidation etc.  Methods of replenishing plant nutrients in the soil Methods of replenishing plant nutrients:  - Rotational cropping, organic manuring, inorganic manuring, fallowing, liming, cover cropping etc.	demonstrate deficiency of various elements in different crops.  Apply fertilizers to field crops.
9	i. Definition of micro and macro nutrients, functions and deficiency symptoms.  Factors influencing availability of nutrients Factors: soil PH, excess of other nutrients, leaching, crop removal, oxidation etc.  Methods of replenishing plant nutrients in the soil Methods of replenishing plant nutrients:  - Rotational cropping, organic manuring, inorganic manuring, fallowing, liming, cover cropping etc.  Nutrients cycles	demonstrate deficiency of various elements in different crops.
9	i. Definition of micro and macro nutrients, functions and deficiency symptoms.  Factors influencing availability of nutrients Factors: soil PH, excess of other nutrients, leaching, crop removal, oxidation etc.  Methods of replenishing plant nutrients in the soil Methods of replenishing plant nutrients:  - Rotational cropping, organic manuring, inorganic manuring, fallowing, liming, cover cropping etc.  Nutrients cycles  i. Nitrogen cycle	demonstrate deficiency of various elements in different crops.  Apply fertilizers to field crops.
9	i. Definition of micro and macro nutrients, functions and deficiency symptoms.  Factors influencing availability of nutrients Factors: soil PH, excess of other nutrients, leaching, crop removal, oxidation etc.  Methods of replenishing plant nutrients in the soil Methods of replenishing plant nutrients:  - Rotational cropping, organic manuring, inorganic manuring, inorganic manuring, fallowing, liming, cover cropping etc.  Nutrients cycles  i. Nitrogen cycle ii. Carbon cycle	demonstrate deficiency of various elements in different crops.  Apply fertilizers to field crops.
9 10 11	i. Definition of micro and macro nutrients, functions and deficiency symptoms.  Factors influencing availability of nutrients Factors: soil PH, excess of other nutrients, leaching, crop removal, oxidation etc.  Methods of replenishing plant nutrients in the soil Methods of replenishing plant nutrients:  - Rotational cropping, organic manuring, inorganic manuring, fallowing, liming, cover cropping etc.  Nutrients cycles  i. Nitrogen cycle ii. Carbon cycle iii. Water cycle	demonstrate deficiency of various elements in different crops.  Apply fertilizers to field crops.
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	clearing, stumping, fertilizer application, inorganic manuring etc.	
13	Revision	Revision
14	Examination	Examination

# AGRICULTURAL SCIENCE SS 2 THIRD TERM

WEEK	TOPIC / CONTENT	ACTIVITIES
1	Farm Machinery Farm machinery: i. Tractor ii. Bulldozer	Visit agro-service centres or mechanized farms and identify these farm machinery and implements.
2	Farm machinery continues  iii. Shellers  iv. Dryers  v. Incubators  vi. Milling machines etc.	Visit agro-service centres or mechanized farms and identify these farm machinery and implements.
3	Tractor – coupled implements Tractor-coupled implements: Ploughs, harrows, ridgers, planters, harvesters, sprayers.	Name the major parts of tractor-coupled implements and their functions.
4	Surveying and planning of farmstead  i. Definition of surveying and planning  ii. Importance of farm surveying and planning.	Carry out the layout of the school farm.
5	Surveying equipment Common surveying equipment e.g. ranging pole, measuring tape, peg, gunters chain, theodolite etc.	Identify simple survey equipment
6	Planning of farmstead  i. Definition of planning  ii. Importance of farm  stead planning  iii. Principles of farmstead  planning.	Class discussion
7	Basic Economic Principles  i. Law of diminishing returns  ii. Principles of demand and supply.	Use graphs to show response of prices to supply and demand.

8	Demand and Supply Inter-relationship of demand and supply as it affects prices and profits	
9	Farm Accounts Entries of sales and purchases.	Prepare entries of sales and purchases
10	Farm Accounts Profit and loss accounts	Prepare profit and loss account
11	i. Identification of pests ii. Identification of soils iii. Identification of rocks iv. Identification of farm machines and their parts.	Collect pests, soil samples, rocks and identify them.
12	Revision	Revision
13	Examination	Examination

# COMPUTER STUDIES SS 2 FIRST TERM

WEEK	TOPIC/CONTENT	ACTIVITIES
1	CENTRAL PROCESSING UNIT(CPU) -Arithmetic and logic unit and control unit -Function of ALU and Control unit	-Teacher leads students to list CPU components e.g. ALU, Control unit, etcStates functions of ALU and control unit e.g. explains ALU-accept and executes any arithmetic and logic operations while control unit controls all operations inputted to the system.
2	MEMORY UNIT -Types of memory -Description of: i) Primary memory ii) Secondary memory	- Teacher leads students to list types of memory e.g. i) Primary memory(main memory) ii) Secondary memory(auxiliary) -Description of: primary memory i) Random access memory(RAM) ii) Read only memory(ROM) Secondary memory:

		Flash drive, hard disk, compact disk(CD), digital video disk (DVD)
3	MEMORY UNIT -Differences between primary and secondary memory	- Teacher leads students to display auxiliary storage devices as secondary storage e.g. floppy disk, flash drive, compact disk, etc. -Units of storage: Bits, nibble, bytes, kilobytes(KB), megabytes(MB), gigabytes,(GB), terabytes (TB)
4	i) Conversion from one unit to the other ii) Comparison of auxiliary storage devices.	- Teacher leads students to compare presently available storage devices(size, memory capacity) e.g. size, speed, technology(optical, magnetic and semiconductor) - Teacher leads students to carry one simple arithmetic on conversion from one unit to another. E.g. 1Kilobyte (KB)=1000 bytes etc.
5	LOGIC CIRCUITS -Definition of logic gate -Types of logic gates	- Teacher leads students to define logic gate -Guides students to list types of logic gates e.g. AND, NOT, OR, by the use of drawing charts.
6	LOGIC CIRCUITS -Symbols of each logic gate -Input and output signals for AND, NOT, OR gates.	-Displays symbols of logic gates on a chart - Teacher guides students to identify the signals in each gate symbol.
7	LOGIC CIRCUITS -Truth table construction for AND, NOT, OR -Equation for: AND, NOT,OR gates.	- Teacher guides students to construct truth table for gate -Write logic equations, etc
8	LOGIC CIRCUITS -Uses of logic gates -Logic circuits II(AL)Alternative logic gates)	- Teacher leads students to state the differences among the three gates -As building blocks for hardware/electronic components. -Description of alternative logic gates.

9	ALTERNATIVE LOGIC GATES II -Types of alternative logic gates -Symbols of each logic gate -Input/output signals	- Teacher leads students to list types of alternative logic gates, e.g. NAND, NOR, etcDisplays symbols of alternative logic gates on a chart -Guides students to identify the signals in each gate symbol, i.e. NAND, NOR.
10	ALTERNATIVE LOGIC GATE II -Truth table construction -Equation for: NAND, NOR gates -Uses of logic gates	- Teacher guides students to construct truth table for each gate: i.e. NAND, NOR -Write a logic equation for each -Uses of logic gates: As building blocks for hardware or electronic components etc -Construction of simple comparators using NOR/NAND, XOR gates
11	COMPUTER DATA CONVERSION -Definition -Types of registers -Function of each register and main memory	- Teacher leads students to define: i) Register ii) Address iii) Business - Teacher guides students to list types of MDR, CIR, and SQRState the functions of each register and main memory.
12	COMPUTER DATA CONVERSION -Differences between register and main memory -Outline steps -Factors affecting speed data transfer	- Teacher guides students to identify differences between register and main memory -Outline steps in data conversion e.g. 'data-fetch-execute' cycle in a simple formStates factors affecting data transfer: BUS-Speed, BUS-Width, etc.
13	Revision	Revision
14	Examination	Examination

#### **COMPUTER STUDIES**

WEEK	TOPIC/CONTENT	ACTIVITIES
1	CONCEPT OF COMPUTER FILES -Definition -Types of data items -File structure organization	- Teacher leads students to define each term i) Computer ii) Record iii) Field iv) Data item -Guides students to list the types of data item: numeric, alphabetic, alphanumeric -File structure organization(from data item)
2	CONCEPT OF COMPUTER FILES -Type of file organization -Methods of accessing files -Classification of file	- Teacher leads students to list types of file organization i) Serial ii) Sequential iii) Indexed iv) Random -Methods of accessing of files, e.g. as above -Classification of: i) Master file ii) Transaction file iii) Reference file -Criteria for classifying files: Nature of contentOrganization method -Storage medium
3	HANDLING COMPUTER FILE: -Basic operation on computer files -Steps involved in creating sequential file -Steps involved in accessing sequential file above using basic file	- Teacher guides students to list basic operations on computer files, e.g. creation, deletion, copy, retrieval, view, update, open, closeOutlines steps involved in file creation using BASIC processing statements e.g. Exam file with math and English and hands-on-experience(H-O-E)

		-Outline steps involved in file accessing using BASIC processing statements.
4	HANDLING COMPUTER FILES -Basic file processing -Effect of file insecurity -Methods of file security	-Describes file insecurity and its effects i) Data loss and is causes ii) Over writing -Leads students to mention file security methods: i) Use of back ups ii) Use of antivirus iii) Password iv) Proper label of storage devices, etc.
5	HANDLING COMPUTER FILES -Difference between computer files and manual files -Advantages of computerized files -Limitations	- Teacher lead the discussion to identify differences between computer files and manual filing system -Advantages are: more secured, fast to access, less laborious, more reliable, neatly modified -States limitation of computerized file e.g. Expensive to set it up -Irregular power supply, etc.
6	LOGIC CIRCUITS -Symbols of each logic gate -Input and output signals for AND, NOT, OR gates.	-Displays symbols of logic gates on a chart -Guides students to identify the signals in each gate symbol.
7	LOGIC CIRCUITS -Truth table construction for AND, NOT, OR -Equation for: AND, NOT,OR gates.	- Teacher guides students to construct truth table for gate -Write logic equations, etc
8	LOGIC CIRCUITS -Uses of logic gates -Logic circuits II(AL)Alternative logic gates)	- Teacher leads students to state the differences among the three gates -As building blocks for hardware/electronic componentsDescription of alternative logic gates.
9	ALTERNATIVE LOGIC GATES II -Types of alternative logic gates -Symbols of each logic gate -Input/output signals	<ul> <li>Teacher leads students to list types of alternative logic gates, e.g. NAND, NOR, etc.</li> <li>-Displays symbols of alternative logic gates on a chart</li> <li>-Guides students to identify the signals in each gate symbol, i.e. NAND, NOR.</li> </ul>

10	ALTERNATIVE LOGIC GATE II -Truth table construction -Equation for: NAND, NOR gates -Uses of logic gates	- Teacher guides students to construct truth table for each gate: i.e. NAND, NOR -Write a logic equation for each -Uses of logic gates: As building blocks for hardware or electronic components etc -Construction of simple comparators using NOR/NAND, XOR gates
11	COMPUTER DATA CONVERSION -Definition -Types of registers -Function of each register and main memory	-Leads students to define: i) Register ii) Address iii) Business -Guides students to list types of MDR, CIR, and SQRState the functions of each register and main memory.
12	COMPUTER DATA CONVERSION -Differences between register and main memory -Outline steps -Factors affecting speed data transfer	-Guides students to identify differences between register and main memory -Outline steps in data conversion e.g. 'data-fetch-execute' cycle in a simple form. -States factors affecting data transfer: BUS-Speed, BUS-Width, etc
13	Revision	Revision
14	Examination	Examination

## COMPUTER STUDIES

#### **SS 2 THIRD TERM**

WEEK	TOPIC/CONTENT	ACTIVITIES
1	ALGORITHMS AND FLOW CHART -Definition -Characteristics of Algorithms -Functions of Algorithm	- Teacher leads students to define algorithm and flow chart -List the functions of algorithm - Teacher guides students to list characteristics of algorithm, e.g. finite, effective and unambiguous, etc
2	ALGORITHM AND FLOW CHART -Writing algorithm for solving a given problem.	Teacher guides students to write a simple algorithm for: -Computing average of a given set of numbers

		-Evaluation of equation: Y=a (b-c)2/d+2. -Printing out the first ten odd numbers etc.
3	ALGORITHMS AND FLOW CHART -Flow chart symbols -Use of each flow chart symbol	-Demonstrate flow chart symbols: I/O, process, decision, etc -States what each symbol represent -Guides students to draw appropriate flow chart to solve a given problem.
4	BASIC PROGRAMING II -Build in functions -Basic notations	Teacher leads students to identify build-in functions: i) SQR ii) INT(X) iii) SIN(X) iv) ABS(X) v)RND(X) vi) COS(X) vii) TAN(X) viii) LOG(X) ix) EXP(X)
5	BASIC PROGRAMMING II -Basic notation	-Basic notation of algebraic expressions i) $\sqrt{b^2 - 4ac}/2a$ ii) (x-y) (x+y) iii) (a+b)+c/sin d iv) b=1/4ac v) $e^{x+y}$ -Sin(x+ny), etc.
6	BASIC PROGRAMING II Write a basic program to compute algebraic equations	Teacher leads students to write BASIC programming using built in functions: i) Find square root, S, round up to an integer ii) Find square root of numbers with a given range. iii) Find the cosine of known values iv) Find the tangent of a given angle v) Plot sine wave curve, plot cosine curve.
7A	INTERNET Definition and some computer internet terms	-Teacher leads students to define: i) Internet ii Some basic terms: Browse, browser, chart room, cyber café, cyber space, download.
7B	INTERNET Definition of internet and some basic terms	- Teacher guides students to define some basic terms: Home page, HTML, HTTP, Intranet, Internet service provider, upload, protocol, web browser, web page, web site.

8	INTERNET Main browsers: - Features in main browsers	- Teacher leads students to list the main browsers: i) Internet explorer ii) Netscape navigation iii) Opera iv) Firefox -Leads students to list the features in main browser, window, title bar, menu bar, tool bar, address bar, etc.
9	INTERNET Internet services	-ITeacher instructs students to visit some websites -Write notes on the board on what they learnt on their visit website, e-mailEmail discussion group -Telnet -Usenet -FTP -WWW, etc
10	ELECTRONIC MAIL(E-MAIL SERVICES) -Definitions	- Teacher leads students to define: i) Electronic mail ii) E-mail; services a. Sending/receiving e-mail b. Charting iii) Steps involved in operating mail box iv) Steps involved in creating e-mail account.
11	ELECTRONIC MAIL(E-MAIL SERVICES) -Features in an e-mail address -Definition of charting	- Teacher guides students to write e-mail and website addresses and identify the differences in their features e.g. i) finemail@finegoving.org e-mail address ii) www.finegoving.org website -Definition of chatting
		-Steps involved in chatting.
12	Revision	-Steps involved in chatting.  Revision

#### **GEOGRAGHY**

#### **SS 2 FIRST TERM**

WEEK	TOPIC / CONTENT	ACTITIVIES
1	Action of Waves  Definition and terms associated with waves. waves tide, currents, coast, swash etc and erosional processes (corrosion, attrition, solution and hydraulic action)  Erosional features of waves cape, bay cliff, caves, stock, etc  Coastal deposition (beaches, spit bar etc)  Coastal deposition (beaches, spit, bar etc)	Teacher: Uses pictures, films and models to explain  - Meaning and characteristics of waves, tides and currents  - guide discussions of erosional processes and coastal landforms  - help students identify and describe features of coastal erosion and deposition.  - Guides and supervises students as they make annotated diagrams of landforms  - Takes students on field work to observe features of wave erosion and deposition  Students: Draw annotated diagrams of the landforms  - Bring pictures of coastal landforms to school  - Participate in guided tour to observe coastal landforms.  Instructional Materials:  Films, Pictures, Models, slides, Sketches and Annotated diagrams.

2	Climate 2  - Climatic types (hot, temperate, cold, desert etc  - Characteristics(temperature, rainfall, etc)  - Geographical distribution	Teacher: uses maps diagrams and sketches to help students identify major climatic types  - Uses the globe, maps, diagrams and sketches to explain climatic factors and their influence on weather and climate  - Guides class discussions on :  - characteristics of major climatic types  - their geographic distribution and influence of climatic types on human activities  - classification of climate  - Takes students on a study trip to a meteorological stations
3	Climatic Classification:  Greek classification(torrid, temperate and frigid), geographical distributions merits and elements.  Koppen classification (A, B, C, D, E and sub categories Af, Am, Aw, Bs, Bw, Cw, Cs, CF, DF, ET and EF)  Advantage and disadvantages of Koppen classification	Students- Visit a meteorological station - Draw diagrams and sketches to show the effects of latitude, planetary winds, pressure, ocean currents, distance from the sea etc on climate Draw a map of the world showing the distribution of climatic types/ regions - Draw a map of the world showing Greek climatic classification system, and that, showing koppen's classification Instructional Materials: Atlas, Maps, slides/power points, drawing paper, sketches and diagrams. Colour pencils, Tracing paper

4	Environmental Resources	Teacher : Initiates and guides
	(Contd.)	discussions on ;
	<ul> <li>Meaning of environmental</li> </ul>	- Components of each type of
	resources and types	environmental resources
	(atmospheric-sun, wind, rain,	- Quality of human resources in
	gases etc,)	relation to size, skilled and
	- Water resources-meaning,	unskilled human resources,
	types/examples and uses	education and health etc,
	- Vegetation resources ;	- uses and importance of
	meaning types example and	environmental resources
	uses	- Uses pictures, charts and
5	Environmental Resources (Cont)	maps to explain the meaning
Ü	- Mineral resources; meaning,	of environmental resources
	types, uses and the problem	Students :
	of mineral exploitation.	Draw a table indicating the
	- Land resources; meaning,	types of resources
	types soils, plateau, etc and	- Components of the resources,
	their uses.	their sources and uses.
	- Human resources: meaning,	Instructional Materials
	types human capital,	- illustrative diagrams and
	population, technology etc),	sketches
	uses etc	- Documentaries
	uses etc	- Maps
		- Video clips/tapes
6	Renewable and Non-Renewable	Teacher: uses pictures, charts
0	Resources:	and documentaries to explain
	- Meaning and types of	renewable and non-
	renewable and non-	renewable resources.
	renewable resources	- Initiates and guide students
	- Advantages of renewable	discussions on advantages
	and non-renewable	and disadvantages of the
		types.
	resources	- Takes students on field tour to
	<ul> <li>Disadvantages of renewable and non-renewable</li> </ul>	
		identify renewable and non renewable resources in their
	resources	
		community.
		Students : Participate in field work
		- Watch documentaries of
		renewable and non-
		renewable resources
		- Tabulate resources as
		renewable and non renewable
		resources.
		Instructional Materials :
		- illustrative diagrams and
		sketches
		- Documentaries
		- Maps
		- Video clips/tapes
		v laco olipa/tapea

7	Environmental Problems (HAZARDS)	
	- Meaning and types (drought,	
	desert encroachment,	
	pollution, deforestation, soil	
	erosion; meaning, causes,	
	effects and solutions.	
8	Environmental Problems	Teacher:
	(HAZARDS) Cont.	- Uses pictures and
	- Coastal Erosion: Meaning,	documentaries to guide
	areas affected, causes	students discussion of ;
	effects and solutions	- Environmental problems and
	<ul> <li>Flooding; meaning, causes,</li> </ul>	their effect on human
	effect and solutions.	activities
	- Deforestation; Meaning, area	- Solution to the problems
	affected, causes, effects and	- Takes students on field work
	solutions.	to observe environmental
	•	problems and their causes.
9	Environmental Problems	Students :
	(HAZARDS) Cont.	- Observe environmental
	- Pollution : Meaning and	problems in their
	types (land pollution)	community
	- Water Pollution; meaning,	- Watch documentary films of
	causes, effects and	environmental problems
	solutions.	Instructional Materials :
	- Air and noise Pollution;	- Documentaries
	Meaning, causes, effect and	- Maps
	solutions.	- Photocopies
		- Video clips/tapes
10	Environmental Conservation	Teacher:
	- Meaning and types/methods,	- Uses pictures, charts and
	afforestation/re-afforestation,,	maps to explain the meaning
	cover cropping improved	of environmental conservation
	farming techniques,	- Initiates and guides
	environmental education,	discussions on ;
	recycling	- Types of environmental
	- Methods of environmental	conservation
	conservation, improved	- Needs and importance of
	farming methods.	environmental conservation
		Students :
		Listen to teacher and
		participate in discussion
L		P 3 30.P 3.0 11. 3.00 300 10.11

11	Environmental Conservation Cont. Environmental education: - Recycling - Importance of environmental education	Students: illustrative diagrams and sketches Documentaries Maps Video clips/tapes
12	Revision	Revision
13-14	Examination	Examination

#### **GEOGRAGHY**

WEEK	TOPIC / CONTENT	ACTITIVIES
1	- Meaning and types of agricultural practice (subsistence, mechanized, pastoral farming, crop rotation, mixed farming, shifting cultivation) - Mechanized Agriculture - Pastoral farming	Teacher: - Takes students on field work to observe agricultural practices Uses maps, pictures, films, slides etc to guide discussions on; - Types of agricultural practices - Nigeria's major food and cash crops - Importance of Agriculture - Problems of Agriculture - Guides and supervises
2	Types of Agriculture in Nigeria: - Crop rotation - Mixed farming - Shifting Cultivation	students as they draw map of Nigeria and locate major agricultural produce on map.  Students:
3	Agriculture in Nigeria Cont.  - Food and cash crops (locate the areas on the map)  - Importance of agriculture in Nigeria and their solutions	<ul> <li>Participate in outdoor activities and make records and report of observations</li> <li>Identify and classify agricultural practices in Nigeria</li> <li>Draw a map of Nigeria and insert the country's major cash and food crops on map.</li> <li>Instructional Materials</li> <li>Maps, Illustrative diagrams and sketches, farms in the locality, pictures, slides etc</li> <li>Documentaries, Drawing paper and Tracing paper.</li> </ul>
4	Transportation in Nigeria :	Teacher :

	<ul> <li>Meaning and types/modes of transportation (road, rail, water, air, pipeline, aerial rope ways, human and animal porterage)- road transport; meaning-types merits, demerits problems and solutions</li> <li>Rail transport and pipeline, meaning, types, merits, demerits, problems and solutions.</li> <li>Water transport; meaning types, merits, demerits, problems and their solutions.</li> </ul>	<ul> <li>Helps students identify and describe major modes of transportation in Nigeria</li> <li>Guides students discussion on:         <ul> <li>Advantages and disadvantages of various modes of transportation.</li> <li>Transportation problems in Nigeria</li> <li>Influence of transportation on human activities.</li> </ul> </li> <li>Students:         <ul> <li>Draw maps of Nigeria showing the road and rail transportation system</li> <li>Participate in class discussions</li> <li>Instructional Materials:</li></ul></li></ul>
5	Transport and Communication in Nigeria	Teacher: Guides students to draw maps
	<ul> <li>Problems of transportation and their solutions</li> <li>Communication: meaning and types of communication networks         (telecommunications, telephones services, cellular phones, voice mails etc; postal services, radio, television, newspapers internet, face book etc)</li> <li>Telecommunication and postal services meaning, merits and demerits</li> </ul>	of road and rail transportation systems in Nigeria
6	Communication in Nigeria	Teacher:
	<ul> <li>Types of communication network. Radio and television( merits and demerits)</li> <li>Newspapers and magazines meaning, types, merits and demerits</li> <li>Internet, face book etc; meaning, merits and demerits.</li> </ul>	<ul> <li>Helps students identify and describe major communication elements in Nigeria through use of pictures, films etc</li> <li>Takes students to visit communication industries in the community</li> <li>Guides students discussions on; advantages and</li> </ul>

7	Communication in Nigeria Cont.	disadvantages of
	<ul> <li>Importance of communication</li> <li>Problems of communication</li> <li>Solutions</li> </ul>	communication system, - Problems of communication - Influence on human activities  Students: - Visit communication companies/industries in locality - Watch documentaries and films - Participate in discussions Instructional Materials: Documentary, film/slides, posters, pictures
8	<ul> <li>Manufacturing Industry in Nigeria</li> <li>Definition and types of industry; primary, secondary, tertiary and quaternary</li> <li>Major industrial zones in Nigeria; types of industry within each zones and their products.</li> <li>Factors affecting locations of industries</li> </ul>	Teacher: - Takes students on tour of manufacturing industries in the locality Uses of pictures, films maps etc to guide the discussions on industries. Students: - Draw sketches maps of Nigeria showing major industrial zones - Carry out field work and write reports on field work Instructional Materials: Map of Nigeria showing industrial zones
9	Industry in Nigeria Cont.  - Local craft in Nigeria  - Importance of manufacturing industries.  - Problems of manufacturing industries and their solutions.	Teacher: guide discussions on: type of manufacturing industries - Major industrial zones - factors affecting location of manufacturing industries - Problems and solutions.
10	Meaning and major     commercial activities (trade,     transportation and     commercialization)     Trade and major commercial     area in Nigeria     Importance of commercial     activities	Teacher: - Takes students on field work to identify commercial activities in the locality - Use pictures, films, documentaries, maps etc to guide class discussions on; - Nigeria's trade, stock exchange, capital market - Major commercial zones - Importance of commercial activities Students:

		<ul> <li>Draw sketch-maps of Nigeria showing commercial cities</li> <li>Carry out field work</li> <li>Instructional Materials:</li> <li>Map of Nigeria showing commercial cities</li> <li>pictures, films showing trading on stock exchange</li> </ul>
11	Revision	Revision
12	Examination	Examination
13	Examination	Examination

#### **GEOGRAGHY**

#### **SS 2 THIRD TERM**

WEEK	TOPIC / CONTENT	ACTITIVIES
1 1	Map Reading  - Direction and bearing: The major cardinal points(true/magnetic north and magnetic variations)  - Compass direction  - Angular bearings	Teacher: - Explains the use of angular bearings and compass bearings - Leads students to locate the major cardinal points - Guides students to solve problems using examples from topographical maps Students: - Draw diagrams showing major cardinal points and their bearings - Determine the directions and bearings from topographical maps Instructional Materials: Topographical maps, Atlas, Plans, Compass.
2	Representation of Relief Forms :	Teacher:
	<ul> <li>Conventional signs and symbols.</li> <li>Physical features (relief); valleys, spur pass, knoll and hill.</li> <li>Physical features (relief); escarpment, plateau,</li> </ul>	<ul> <li>Uses maps, models, sketches on the board to help students to recognize relief features on maps</li> <li>Uses sand trays and ashes to demonstrate formation of contour lines</li> </ul>

3	dissected plateau, ridge, cliff etc  Methods of representing Relief	Students: - observe topographical maps to identify sets of physical features - Constant topographical maps by using contour lines to represent relief in their discrete forms Instructional Materials: Maps, atlas, models, Rulers, colours, sand, ashes, trays Teacher:
	<ul> <li>Contour and hills shading</li> <li>Relief colouring, spot heights, hachures</li> <li>Bench marks, boundary pillars, trigonometrical stations etc</li> </ul>	Guide discussions on methods of representing relief features on maps.
4	World population  - Definition, size and distribution patterns - Density (meaning, calculation, merits and demerits of high and low population densities and world population structure - Factors affecting population distribution (climate relief, water, minerals etc	Teacher:  - Uses maps, diagrams, pictures, documentary films etc to guide students to discuss world population with respect to size, density structure and distributions patterns  - Guide class discussions on influence of climate, relief, soil, water etc on population density and distribution
5	World Population Cont.     Reason for rapid growth of world population     Migration; meaning and types of migration     Factors responsible for migration, merit and demerits of migration	- Leads students to make sketches of world population distribution on a map.  Students: - Draw sketch maps showing distribution of world's population - Watch films on population distribution.  Resources; population maps, sketches and diagrams, GIS maps on population.
6	Settlement  - Meaning and types of settlement (urban and rural settlements; population, economy, administration etc  - Factors of settlement (soil, weather, topography etc)	Teacher: - Guide students discussion of; - Settlement types - Characteristics of urban and rural settlements - Factors of settlement location - Settlement patterns and their
7	Settlement Cont.	developmental factors.

	<ul> <li>Settlement patterns;         dispersed, linear, isolated         etc</li> <li>Factors that aid the         development of each         patterns</li> <li>Classification of settlement         according to size</li> </ul>	<ul> <li>Uses maps and sketches to help students identify human settlements</li> <li>Takes students on field work to observe human settlements patterns in the locality.</li> <li>Student:</li> <li>Read topographical maps and</li> </ul>
8	<ul> <li>Settlement cont.</li> <li>Classifications according to functions</li> <li>Differences between urban and rural settlements</li> <li>Settlement interactions; types of interactions(commercial, cultural, administrative etc)</li> </ul>	identify human settlements on the map - Draw sketch diagrams showing settlement patterns in their locality - Participate in field work and write reports
9	Settlement cont.  Interaction patterns within settlement urban-rural and rural-urban  Urban-urban and rural-rural etc  Functions of settlement	Instructional materials: Top-maps, Aerial photographs of human settlements, satellite images, diagrams and sketches.
10	Geo-Political issues (Land Reclamation)  - Meaning of land reclamation and methods: Afforestation, construction of barriers, erosion control etc  - Methods of land reclamation: Sand, fillings, constructions of drainage, erosion control etc  - Importance of land reclamation	Teacher: - Guide students discussions on; - Methods of Land reclamation - Importance of land reclamation - Uses photographs of reclamation sites to explain the concept of land reclamation - Take students on field work to land reclamation sites Students: - Participate in field work and write reports - Carry out community development project on land reclamation Instructional Materials: - Photographs, Documentary, films, Diagrams and sketches
11	Geographic Information System (GIS) Data  - Data sources: Land survey and remote sensing - Data sources; map digitalization and scanning	Teacher: - Explains GIS data sources - Takes students on field work to collect geographic data using various methods - Supervises students on field work

		<ul> <li>Data sources: field investigation and tabler data etc</li> </ul>	Students: Participate in a guided field work Instructional Materials GPS, Satellite images, Maps
ĺ	12	Revision and Examination	

## ECONOMICS

#### **SS 2 FIRST TERM**

WEEK	TOPIC/CONTENT	ACTIVITIES
1	TOOLS OF ECONOMIC ANALYSIS  i. Simple linear equations  ii. Measures of dispersion  iii. Pie chart	<ol> <li>Teacher to test previous knowledge of basic tools taught in year one. Give relevant examples on the new topic (draw tables, graph and calculate given data)</li> <li>Learning material; Graph paper and other relevant materials.</li> </ol>
2	i. Bar charts ii. Calculation of charts	<ol> <li>Teacher to test previous knowledge of basic tools taught in year one. Give relevant examples on the new topic (draw tables, graph and calculate given data)</li> <li>Learning material; Graph paper and other relevant materials.</li> </ol>
3	CONCEPT OF DEMAND AND SUPPLY  i. Meaning of demand and supply ii. Laws of demand and supply i. Factors affecting demand and supply.	Teacher to emphasize the role of price system in resource allocation in economics. Guide students to plot the demand and supply schedules to obtain curves.  Learning materials; Graphs.
4	CONCEPT OF DEMAND AND SUPPLY  i. Distinguish between factors that cause shift in demand and supply curves and those causing movement along demand and supply curves  ii. Types of demand and supply (with curves)	Teacher to emphasize the role of price system in resource allocation in economics.     Learning materials; Graphs.

5	THE PRODUCTION POSSIBILITY CURVE  i. Meaning of production possibility curve (PPC) ii. Plotting the PPC from possible data	Teacher to give hypothetical production data and figures to plot the PPC and to calculate marginal product (MP) and average product (AP). Guide students to draw PPC on graph sheets.      Teacher to provide a to death 4.
6	THE PRODUCTION POSSIBILITY CURVE i. Concept of total, average and marginal productivity. ii. Laws of variable proportion	<ol> <li>Teacher to guide students to plot graphs, calculate average, total and marginal productivity</li> <li>Learning materials: Graphs and tables</li> </ol>
7	i. Basic cost concepts: total, average, marginal, fixed and variable cost. ii. Different cost curves	Teacher to ask students to state what they consider as cost and highlight the distinctions between cost to individual, the business enterprise and to the nation     Learning materials; Graphs.
8	i. Short-run and Long-run Costs ii. Distinction between economist's and accountant's view of cost	1. Teacher to ask students to state what they consider as cost. Identify costs incurred in the running of schools. Draw cost curves and go on excursion to local factories to identify cost items.  2. Learning materials; Graphs.
9	i. Concept of revenue – total, average and marginal revenue ii. Revenue schedules and curves	Teacher to explain the concepts of total, average and marginal revenue to students and use raw relevant revenue schedules and curves.      Learning materials; Graphs.
10	TYPES AND FEATURES OF ECONOMIC SYSTEM  i. Basic features of economic system (Capitalism, Socialism, Mixed economy etc)	1. Teacher to explain the features of the various economic system, drawing examples from defunct USSR, United States and Nigeria.  2. Learning materials: Political Map of the world.
11	LABOUR MARKET i. Supply of and demand for labour ii. Wage determination	Teacher to emphasize the role of government institutions and wage commissions in the determination of wages.     Discuss the introduction of the new minimum wage.     Invite labour leader and

		employer of labour or official
		of ministry of Labour,
		Employment and productivity
		to give talk on labour matters.
		Draw out distinction between
		real and nominal wages.
		Simulate wage bargaining by
		grouping students into
		employers and union leaders.
		Discuss with students
		activities of NDE; National
		Directorate of Employment.
		Mention some jobs a young
		school leaver could engage
		in.
		Learning materials:
		Newspaper clippings,
		hypothetical price level wage
		rate and productivity data.
40	LADOUD MADICET	Graph paper and pencil.
12	LABOUR MARKET	Teacher to discuss the spinion and the sp
	i. Trade Unions and other related institutions.	introduction of the minimum
	related institutions.	wage and invite labour leader
		and employer of labour or official of ministry of Labour,
		Employment and productivity
		to give talk on labour matters.
		Learning materials:
		Newspaper clippings
13	Revision	Revision
14	Examination	Examination

#### **ECONOMICS**

WEEK	TOPIC/CONTENT	ACTIVITIES
1	LABOUR MARKET	Teacher to briefly review the
	i. Concept of	relationship between size of the
	unemployment	labour force and population treated
	ii. Types of	in SS1. Ask students to state the
	unemployment,	population of their various
	causes, effects and	households and the number who
	solutions.	are effectively employed. Mention
	iii. Concept of self	some jobs young school leavers
	employment, job	could engage in. Discuss with
	creation and dignity of	students activities of NDE; National
	labour.	Directorate of Employment.
		Mention some jobs a young school
		leaver could engage in.
		Learning materials: Newspaper
		clippings, hypothetical price level
		wage rate and productivity data.
2	ELEMENTARY TREATMENT	Teacher to explain with real life
	OF UTILITY THEORY	examples, the concept of average,
	i. Concept of utility –	marginal and total utility. Explain
	average, marginal and	the principle of diminishing
	total utility.	marginal utility with drinking water
	ii. The law of diminishing	or soft drinks. Calculate with
	marginal utility.	students total, average and
		marginal utilities from hypothetical
		schedule given and draw relevant
		graphs.
		Learning material; drinkable
		water/soft drinks and cups. graphs
3	PRICE DETERMINATION	Teacher to demonstrate with
	<ol> <li>Determination of</li> </ol>	students the effects of changes of
	equilibrium price and	demand and supply on equilibrium
	quantity	price and quantity using graphs to
	ii. Effects of changes in	explain the changes. Illustrate
	demand and supply	discussion with local examples
	iii. Types of demand and	<ol><li>Learning material; Appropriate</li></ol>
	supply e.g. joint	illustrations e.g. bread and butter,
	demand, joint supply	petrol and car. Illustrate
	etc.	complimentary demand and other
		types of demand and supply. Use
		graphs and diagrams.
4	PRICE DETERMINATION	Teacher to recall Nigeria's
	i. Concept of elasticity	experiences with fuel price/wage
	and its application	increases. Give students examples
	ii. Simple application of	and calculate elasticity values.
	price theory e.g.	
	minimum and	

	1			
		maximum price legislation.	2.	Learning material; Use graphs to illustrate the elasticity of demand and supply.
5	MARKET	STRUCTURE	1.	Teacher to emphasize the
	i.	Concept and types of		distinction between market and
		markets		market place. Revise cost and
	ii.	Review of cost and		revenue concepts
		revenue curves.	2	Learning materials; Graphs.
6	MARKET	STRUCTURE		Teacher to identify and explain the
0	j.	Price and quantity	1.	basic features of the perfect and
	1.	determination under		•
				monopoly market using real life
		perfect competition	0	examples.
		and monopoly.		Learning materials; Graphs.
7		STRUCTURE	1.	Teacher to identify and explain the
	i.	Price and quantity		basic features of the perfect and
		determination under		imperfect market using real life
		duopoly and		examples.
		monopoly.	3.	Learning materials; Graphs.
8	INDUSTF	RIES IN NIGERIA	1.	Teacher to arrange an excursion to
	i.	Definition of industrial		local factories, construction
		concept – plant,		companies and mining sites and
		factory, firm, industry		industrial estates where possible.
		and industrial estate.		Think out reasons for siting certain
				factories in their neighbourhood
				where they are sited. List firms of
				the same industry close to one
				another
			2	Learning materials; map of Nigeria
				showing industrial activities.
9	INDUSTE	RIES IN NIGERIA	1	Teacher to arrange an excursion to
	i.	Location and	• • •	local factories, construction
	''	localization of		companies and mining sites and
				industrial estates where possible.
	::	industries in Nigeria.		•
	ii.	Advantage and		List some advantages derivable
		disadvantages of		from having firms of the same
		localization of	_	industry close to one another.
		industries.	2.	Learning materials; map of Nigeria
	iii.	Factors that influence		showing industrial activities.
		location and		
		localization of		
		industries.		
10	AGRICUI		1.	Teacher to encourage students to
	i.	Problems of agriculture		participate in farms activities at
	ii.	Agricultural policies in		home and school. Invite agricultural
		Nigeria.		extension worker or agricultural
				science teacher to give talk on
				agriculture generally.
			2.	Learning materials: Display
				agricultural commodities. Pie charts
				to show the contributions of
	•			

		agriculture to the economy over the years. Visit large scale farms.
11	i. Marketing of agricultural commodities ii. Prospects of agriculture in Nigeria.	1. Teacher to invite agricultural extension worker or agricultural science teacher to give talk on agriculture generally. Suggest ways to solve agricultural problems in Nigeria.  2. Learning materials: Display agricultural commodities. Pie charts to show the contributions of agriculture to the economy over the years. Visit large scale farms.
12	Revision	Revision
13	Examination	Examination

#### **ECONOMICS**

#### **SS 2 THIRD TERM**

WEEK	TOPIC/CONTENT	ACTIVITIES
1	ELEMENTARY TREATMENT OF FISCAL POLICY	Teacher to illustrate discussions     with Nigeria data at different
	i. Meaning of fiscal policy	stages of teaching.
	in public finance	<ol><li>Budget statement of any year.</li></ol>
	ii. Objectives of public	
	finance	
	iii. Revenue allocation	
	(including resource	
	control)	
	iv. Sources of government	
	revenue	
2	ELEMENTARY TREATMENT OF	Teacher to use demand and
	FISCAL POLICY	supply curves to analyze the
	<ol> <li>Direct and indirect</li> </ol>	incidence of taxation
	taxation	Learning Material: Budget
	ii. Effects and incidence of	statement of any year.
	taxation	
	iii. Structure of effects of	
	public expenditure on	
	government budget	
3	BALANCED AND UNBALANCED	Teacher to use a budget
	BUDGET	statement to illustrate
	i. Meaning of balanced	government fiscal operations and
	budget	students to list their own sources

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	ii. iii.	Reasons for balanced budget Meaning of surplus and deficit budget		of revenue and items they spend money on e.g. in the previous week. This will illustrate the idea of revenue and expenditure at the individual level.  Learning material; List of government fiscal operations.
4	BUDGET i.	Ways of financing deficit budget and their effects (e.g. debt burden, debt relief and debt buy back)		Teacher to use a budget statement to illustrate government operations. Guide students to list their own sources of revenue and items they spend money on e.g. in the previous week. This will illustrate the idea of revenue and expenditure at the individual level.  Learning material; List of government fiscal operations.
5		ITS OF NATIONAL ACCOUNTING Meaning of national income concepts and their uses Ways of measuring national income and their limitations		Teacher to guide students in learning the ways of calculating national income. Identify local economic activities that contribute to total National Income. Apply the concept of income determination to solve simple economic problem.  Learning materials; Charts to illustrate components of National Income.
6		ITS OF NATIONAL ACCOUNTING Uses and limitations of National income estimates Trends and structure of national income		Teacher to guide students in learning the ways of calculating national income. Identify local economic activities that contribute to total National Income. Apply the concept of income determination to solve simple economic problem.  Learning materials; Charts to illustrate components of National Income.
7		OF FINANCIAL TIONS AND THEIR ONS Money Market institutions Capital Market institutions Other Market agencies.	1.	Teacher to emphasize the importance of (AJO/ESSU/ASUSU) and similar arrangements as examples of traditional institutions. Explain peculiar problems of each type of financial institution. Go on excursion with students to central bank/commercial

		bank/development bank and stock exchange where possible.  2. Learning materials; Cheque books, pass books, teller etc and quarterly annual and periodical publications of the Central bank, NDIC, Stock Exchange Commission etc.
8	TYPES OF FINANCIAL INSTITUTIONS AND THEIR FUNCTIONS  i. Functions of capital market institutions ii. How the stock exchange operates iii. Secondary and primary markets	<ol> <li>Teacher to emphasize the importance of (AJO/ESSU/ASUSU) and similar arrangements as examples of traditional institutions. Explain peculiar problems of each type of financial institution. Go on excursion with students to central bank/commercial bank/development bank and stock exchange where possible.</li> <li>Learning materials; Cheque books, pass books, teller etc and quarterly annual and periodical publications of the Central bank, NDIC, Stock Exchange Commission etc.</li> </ol>
9	MONEY: DEMAND FOR AND SUPPLY OF MONEY  i. Determinants of supply and demand for money.  ii. Value of money and the price level.	<ol> <li>Teacher to explain various motives for holding wealth in the form of money. Provide illustration of coins, paper money and cheques as well as specimens of items that could serve as commodity money.</li> <li>Learning materials; Coins, cheques, paper money and commodity money.</li> </ol>
10	MONEY: INFLATION AND DEFLATION  i. Meaning and types of inflation  ii. Causes, effects of inflation/deflation	1. Teacher to emphasize that conventional explanation may not capture all cases of inflation, particularly in the developing countries. Ask students to narrate their experience of inflation in their environment. Testify to the hoarding cause's inflation. Plot graphs to illustrate price changes over time. Organise students in smaller groups to discuss the effect of rising prices on their allowances and what they can buy.

		Learning materials; Time series data on prices, consumer price index information published by the Central bank of Nigeria and their institutions.
11	i. Control of inflation/deflation ii. Inflation in Nigeria.	<ol> <li>Teacher to ask students to narrate their experience of inflation in their environment.</li> <li>Learning materials; Time series data on prices.</li> </ol>
12	Revision	Revision
13	Examination	Examination

### **ENTREPRENURAL SUBJECTS**

#### **DATA PROCESSING**

#### **SS 2 FIRST TERM**

WEEK	TOPIC / CONTENT	ACTIVITIES
1	Data Models -definition of data models -types of data models	- Defines Data Model -Discusses the concept of data modeling -Give example ties of data models Instructional Resources: charts, software package.
2	Data Modeling -creating tables -creating forms -creating queries -creating reports	-Demonstration how to Create Table, Form, Queries and Reports watch teachers demonstration Instructional Resources: computer set, software packages.
3	Data Modeling -significance of data model -exampled of standard of a standard data model data models	-Explains the significance of data model -Participate in classroom activities Instructional Resources: computer set, software packages
4	Normal Forms -examples of tables in first normal forms -tables in second and third normal forms -problems of table in first normal form	-Demonstrate how to create table in normal forms -Watch teacher demonstration Instructional Resources: computer set, tutorial packages.
5	Normal Forms -determinants of normal forms -foreign keys	Explain the determinant of normal forms unique determinant non unique determinant -State the concept of foreign keyDifferentiate between primary key and foreign key.

13	Revision	chart.
		·
		-State characteristics of each file structure. Instructional Resources: Computer set,
12	File Organization -methods of file organization	-Define file organization -State and explain methods of file organization e.g. heap, sentential, hash and btree files
11	Relational Model -querying relational data	Explains how to use SQL and query a relational data e.g. to create a view statement" create view name and select query".
10	Relational Model enforcing integrity constraints	-The SQL to show how to enforce integrity constraints e.g. no action Instructional Resources: SQL software, computer set
9	Relational Model -Integrity constraints over relations	-State integrity constraints over relations such no not null, unique, primary key, foreign key and check -The constraints to define the ways automatically enforce the integrity of a database. Instructional Resources: Computer set, sql software
8	Relational Model -creating relations using sql -modifying relations using sql	-Explain and demonstrates how to create and modify relation using SQL -Listen and participate Instruction Resources: SQL soft ware, computer set.
7	Entity – Relationship Model -additional features of entity model	Give additional features of Entity Model e.g. connectivity and cardinalityListen and participate in class discussion Instructional Resources: Charts and computer set
6	Entity Relationship Entities attributes and relationships	-Students should participate in creating tables in normal form Intentional Resources: computer set, tutorial package.  Explain the main components of an entity relationship (er) model with examples -illustrate relationship between entity and attribute with (er) diagrams *listen and participate Instructional Resources: Charts and computer set

#### **DATA PROCESSING**

WEEK	TOPIC / CONTENT	ACTIVITIES
1	Internet -definition of internet -internet browser -benefits of internet	-The teacher leads the students to define internet -list internet browsers (Opera, Explorer, Mozilla Firefox, UC) etcShow the students their icons on the computerExplain / demonstrate the benefits of internet
2	Internet -requirements for internet connection -internet secreting -abuses of internet	Names requirements for internet commotion e.g. modem, computers etcDefines internet security and list examples AVG, Avast,Nortons -Students to mention the abuses of internet
3	Internet -searching for information -downloading a file from a web page -copying from a web page.	-guides the students to browse and open a web page on the netDemonstrates how to download and copy from a web page Instructional Resources: computer set with internet facility.
4	Presentation Package -meaning of presentation package -uses of presentation package -identification of PowerPoint toolbar and its content.	Guides the student to -definition presentation package with examples (PowerPoint) -State the uses /importance of presentation packed -The teacher loads PowerPoint presentation and guides the students to identify the tool bars and its contents.
5	Creating Presentation -inserting slides -applying design	Lead the students to -Work with slides, applying designs e.g. design template, color scheme, animation scheme
6	Modifying Slides Formatting Text On The Slides -animation texts and chart in presentation	-Format texts on slides by changing their style size colour and orientation -Apply an imitation to text e.g. entrance, exit etc -Applying animation to inserted pictures e.g. motion path PowerPoint software, computer set
7	Final Presentation -save presentation -set slide timing -ste transition -run slide show -close presentation	-Set slide tuning and transition style -Save the presentation run the slide show both automatically and by monde clickClose and exit presentation instructional materials PowerPoint presentation software, computer set.
8	Web Design Packages	-Define web design packages -State uses of web design package

	-meaning of web design packages -uses of web design packages	-Participate in clan room discussion Instructional Resources: charts pictures
9	Web Design Packages -components of web design packages -examples of web design packages	-Give examples of web design packages, e.g. serif web plus, ace html g pro dream wearer, nettbject function etcLead the students to discover the four components e.g. solid layout effective typography, colour scheme etc.
10	Creating Websites -add text, images, links and tables to web pages -format text and change page properties -publish web pages	Lead the students to create a simple web page using Google by adding text images, links and tables to the web pagesGuides the students to format ext (change fort colour, size and type) and change paper properties -Lead the students to their web sites. Instructional Resources - internet facility, computer sets.
11	REVISION	,
12	EXAMINATION	

# DATA PROCESSING SS 2 THIRD TERM

WEEK	TOPIC / CONTENT	ACTIVITIES
1	Graphic Packages -meaning of graphic software package -uses of graphic software package	-Teacher leads the students to define graphic software package -outlines the uses of graphic package. Instructional Resources: charts, pictures, computer laboratory
2	Graphic Packages -examples of graphic package -component ion of graphic package	-Teacher gives examples of graphic packages - CorelDraw, Photoshop, paint etc -CorelDraw software and would be opened to see and identity their basic components like standard menu, tool box, pallet box. etc. Instructional Resources: computer set, CorelDraw software.
3	Corel Draw Environment -uses of the components of the warded	-Hovers around the different components and states what each in used for e.g. standard menu to see file, edit, view, arrange, layout and effects, file in the place to make a new sheet open a file, save, print and scan.

		students to participate actively in the practice instructional resources computer set, CorelDraw software.
4	Object Transformation -definition -object stretching -scaling, mirroring, rotating, skewing objects etc.	-defines objects transformation -guides the students to draw an object after which, they will practice scaling, stretching etc on the object. Instructional Resources: Computer set, CorelDraw software.
5	Object Transformation -object shaping and text kerning -editing and shaping -colour and pattern filling	-Draw an object and guides the students to perform the different kind of transformation on it. Instructional Resources: computer set, CorelDraw software.
6	Object Editing/Arrangement -object duplication -object movement -grouping and alignment -intersecting and trimming	-Draws an object and guides the students to duplicate and move itguided the students to group the duplication object and align them etc. Instructional Resources: computer set, CorelDraw software.
7	Object Editing / Arrangement -object envelop -blending	-Draws an object and demonstrates object and demonstrates object envelop roll – up and blending of two or more objects. students follows teachers example to practice instructional resources computer set, CorelDraw software.
8	Working With Layout -drawing page and background -border -set guidelines	-leads the students to create a drawing page and backgroundguide the students to create border and set guidelines. Instructional resources computer set, CorelDraw software.
9	Working With Layout -importing image -inverting image -adding armistices	-Lead the students to import images (pictures) from another package like paint or ms – wordlead the student to in set images on their drawing page and add artistic texts. instructional resources computer set, CorelDraw software.
10	Maintenance Of Computer -general cleaning of the workshop and computers.	-Explain and demonstrates how to make computer dust free

	-basic maintenance procedure	-Students to clean the computers and the workshop with the supervision of the teacherParticipation in carrying out basic maintenance like blowing dust out. etc. Instructional Resources: computer set, broken down computer sets(scraps)
11	Maintenance Of Computers -battery charging and replacement -DVD drive lens cleaning	Explains and demonstrates how to charge and replace batteries and how to clean the lines of DVD drive. Instructional Resources: AC power source screw driver and clean clothes.
12	REVISION	
13	EXAMINATION	

### ANIMAL HUSBANDERY SS 2 FIRST TERM

WEEK	TOPIC	CONTENT	ACTIVITIES
1	Processing of animal products	Processing of eggs     ii. Processing of meat	<ul> <li>Teacher demonstrates processing of animal products</li> <li>Students are asked to make a collection of processed animal products</li> </ul>
2	α	i. Processing of meat ii. Processing of hide and skin iii. Processing of wool	<ul> <li>Teacher demonstrates processing of animal products</li> <li>Students are asked to make a collection of processed animal products</li> </ul>
3	Marketing of animal products	i. Definition of marketing ii. Marketing channels iii. Advantages and disadvantages of marketing channels	<ul> <li>Teacher illustrates and demonstrates marketing channels</li> <li>Students to participate in marketing of animal products from school farm.</li> </ul>

4	Animal nutrition and classes of animal feed	i. Definition of animal nutrition ii. importance of animal nutrition iii. Classification of farm animal feeds	<ul> <li>Teacher displays chart and pictures</li> <li>Students areasked to make collection of common animal feeds</li> </ul>		
5	Sources of animal feed stuff	i. Carbohydrates and their sources ii. Protein and their sources iii. Fats and oils and their sources.	- Students are asked to make collection of feed stuff and classify them		
6	Sources of animal feed stuff	i. Vitamins and their sources ii. Minerals and their sources iii. Water and their sources	<ul> <li>Teacher displays charts and pictures of various sources of feed stuff</li> <li>Live specimens to be displayed by the teacher</li> </ul>		
7	Values and functions of various animal feed stuff	i. Supply of energy ii. Help in milk production iii. Help in tissue formation iv. Repair of worn out tissues v. Help in temperature regulation.	<ul> <li>Teacher leads discussion in the classroom</li> <li>Students participates in the classroom discussion</li> </ul>		
8	Values and function of various animal feed stuff	i. Insulates the body ii. For growth and development iii. Aid resistance to diseases iv. Used in acid base balance v. Essential for digestion of food.	- Teacher leads classroom discussion and ensures that students participate actively in the class		
9	Practical on animal products processing	i. Meat processing ii. Milk processing iii. Egg processing vi. Hide and skin processing	i. Teacher demonstrates meat processing stages ii. Teacher organizes field trip to abbattoir iii. Teacher provides videos of animal product processing for students to watch in the laboratory.		

10	Practical on animal nutrition	i. Identification and collection of animal feed stuff e.g. cereals, tubers, roughages, domestic waste ii. Plant and animal sources of protein, fats and oils, vitamins etc iii. Sources of water e.g. feeding sources, drinking sources and metabolic water.	Students to produce their individual feed stuff album     Teacher displays charts and pictures of various sources of feed stuff	
11	Practical on animal nutrition	i. Preparation of hay, silage etc ii. Preparation of poultry feeds iii. Milling of animal feeds	<ul> <li>Teacher demonstrates Preparation of hay, silage etc</li> <li>Students work in groups to produce hay and silage</li> </ul>	
12	Revision	Revision	Revision	
13 & 14	Examination	Examination	Examination	

#### ANIMAL HUSBANDRY SS 2 SECOND TERM

WEEK	TOPIC	CONTENT	ACTIVITIES	
1	Livestock rations	i. Definition of animal ration ii. Types of rations e.g. balanced ration, maintenance ration and production ration	- Teacher leads the classroom discussion and ensures that students participate actively	
2	ii	i. Distinguish between the various rations ii. Identify the nutrients that constitute the various types of ration	- Teacher leads the classroom discussion and ensures that students participate actively	
3	Formulation of livestock ration	i. Methods of ration formulation     ii. Identification of ingredients for ration	i). Students to make collection of various feed ingrefients.	

		formulation e.g. blood meal, fish meal, cotton seed meal, bone meal, oyster shell, ground nut cake, maize grain, palm kernel cake etc. iii. Factors to consider in formulation of animal ration.	ii). Students to work in group to formulate animal ratio.
4	Malnutrition in livestock production	i. Definition of malnutrition ii. Symptoms of malnutrition iii. Causes of malnutrition iv. Effects of malnutrition on livestock production	i. The teacher provides malnourished farm animals for students to watch.
5	Practical on formulation of livestock ration	i. Formulation of poultry feeds ii. Preparation of hay, silage and husk iii. Build an album of various ingredients used for formulation of animal feeds.	i. The teacher guides the students on the preparation of hay, silage, husk etc
6	Practical on formulation of livestock ration	i. Formulation of ration for pigs, rabbit, sheep and goats ii. Build an album of different feed stuff used for formulation of feeds for pigs, rabbit, sheep and goats.	The teacher groups the students into projrct groups to formulate rations for different classes of livestock
7	Pasture management practices	i. Meaning of pasture ii. Meaning of forage crop iii. Distinguish between pasture and forage crops	The teacher guides classroom discussion and ensure that students participate actively
8	ш	i. Types of pasture - natural pasture - artificial pasture	u
9	Characteristics of pasture grasses legumes	Examples of pasture grasses e.g. guinea grass, elephant grass, bahama grass, northern gamba, giant star grass, spear grass.	The teacher exhibits the different pasture grasses for students to observe and identify them
10	Characteristics of pasture legumes	Examples of pasture legumes e.g. centro, tropical kudzu, stylo, calapo etc.	ш

11	Practical on pasture grasses and legumes	i. Identification of common pasture grasses and their botanical names     ii. Identification of common pasture legumes and their botanical names	i. The students are asked to produce their individual pasture grasses and legume albums
12 & 13	Revision	Revision	Revision
13	Examination	Examination	Examination

#### ANIMAL HUSBANDERY SS 2 THIRD TERM

WEEK	TOPIC	CONTENT	ACTIVITIES	
1	Range land	i. Definition of range land ii. Characteristic s of range land	i. The teacher guides classroom discussion ii. Provides pictures/videos of a typical rangeland iii. Field trip to a rangeland	
2	Importance of range land	<ul> <li>i. State importance of range land e.g.</li> <li>- Provides balanced feeds</li> <li>- Provides protein needs</li> <li>- Source of cheap quality feeds for animals</li> <li>- Animals exercise themselves maximally</li> <li>- Reduce cost of feeding</li> <li>- Prevent soil erosion</li> </ul>	" " "	

3	Methods of range land improvement	i. ii. iii. iv. v. vi.	Reseeding Padlocking Controlled stocking Avoidance of overgrazing Fertilizer application Pest control Controlled burning	The teacher guides classroom discussion	
4	Practical	i. ii. iii.	Field trip to a rang land Collection of common pasture grasses from a range land Collection of common pasture legumes from a rangeland.	Students exhibit their collections of pasture grasses and legumes in the laboratory	
5	Factors affecting production of herbage in a range land	i. ii. iv. v. vi. vii.	Rainfall Grazing pattern Grasses and legumes Weed control Disease and pest control Drought resistance Controlled burning Irrigation	The teacher guides classroom discussion	
6	Practical on animal feeds and feeding	i. ii.	Formulation of balanced feeds in the labouratory Feeding of the school farm animals with the formulated feeds in the laboratory	i. Teacher demonstrates stages involved in formulation of balanced diet ii. Students are assigned to feed different farm animals available in the school farm	

7	Practical on animal feeds	i.	Expose students to diet formulation for different classes of farm animals e.g. a. Starter b. Grower c. Finisher Students to identify different feed ingredients used for diet formulation e.g. a. Blood meal b. Fish meal c. Cotton seed cake d. System shell e. Groundnut cake f. Maize grains e.t.c	i. ii.	The teacher guides classroom discussion The teacher provides formulated animal diet for students to observe Students are asked to make a collection of feed ingredients
8	Practical ways of checking malnutrition in animal husbandry	i. ii. iii. iv.	Feeding balanced diet Feeding weaker animals separately Deworming of animals Giving supplementar y feeds and feeds additives to stimulate appetite Adjust stock rate	i. ii.	The teacher guides discussion in the laboratory Teacher demonstrates deworming and feeding of weaker animals

12	Examination	Examination		Examination	
11	Revision	Revision		Revision	
10	Field trips	i. ii. iii.	Visit to a modern abattoir Visit to meat shops in the market Visit to cold room where animal products are stored	i. ii.	The teacher organizes a trip Students are asked to write report on their visits to abattoir
9	Practical on processing and marketing of animal products	i. ii.	Slaughtering and dressing of poultry, goat, sheep etc. Marketing of processed animal products	i. ii.	The teacher demonstrates slaughtering and dressing of farm animals Provides videos of farm animal processing for students to watch