SS 1 SCIENCE – THIRD TERM SCHEME OF WORK

New NERDC Approved Senior Secondary Education Curriculum (SSEC) 2025

Federal Republic of Nigeria – Senior Secondary School One (Science Class)

Weeks 1–10 | All Subjects: Core (4) + Trade (1) + Science Field (8) = 13 Subjects Total

About This Term: The Third Term of SS1 Science is the final and most advanced term of the session. English covers antonyms, synonyms, adjuncts, phrasal verbs, speech writing, newspaper articles, and debate; Mathematics covers mensuration (arcs, sectors, surface area, volume, frustum) and statistics (frequency distribution, bar charts, histograms, pie charts, ogive); Biology covers microorganisms in action, habitats (aquatic, terrestrial, grassland), and reproduction in unicellular organisms; Chemistry covers organic chemistry (alkanes, alkenes, isomerism, petroleum), chemical reactions, energy changes, reaction rates, equilibrium (Le Chatelier), and metals/non-metals; Physics covers fluids, SHM, projectile motion, and waves (properties and applications); Agricultural Science covers mechanisation, farm power, crop husbandry (maize, cassava, yam), pasture crops, nutrient cycles, irrigation, and agricultural pollution; Further Mathematics covers measures of location and dispersion plus Operations Research; Geography covers map reading/interpretation, transportation, and fieldwork. Week 1 = Revision note. Week 5 = Mid-term Examination. Week 7 = Mid-term Break. Weeks 11–13 = Final Revision, End-of-Year Examinations, Closing.

Note on Trade Subjects (highlighted in green): *In the Third Term, trade subjects move into advanced and practical capstone content: Computer Hardware covers PSU, advanced networking, and full diagnostic/repair practicals; Livestock Farming covers cattle, goats/sheep, and pigs, plus pasture management; Beauty & Cosmetology covers corrective makeup, cultural makeup, and cosmetic chemistry; Horticulture covers land preparation, planting, crop maintenance, and IPM. Each trade subject concludes with a comprehensive final practical assessment.*

THIRD TERM WEEKLY SCHEME OF WORK

WEEK	SUBJECT	TOPIC / CONTENT
Week 1	**NOTE:** *Revision of Second Term work across all subjects. Teachers revisit key areas before introducing Third Term content. This is also session review week for promotion.*	
	English Language	Vocabulary: Antonyms (words exactly opposite in meaning) – good/bad, friendly/hostile, temporary/permanent, rich/poor, light/dark; Spoken English: Stress timing in English sentences; correct phrasing and voice modulation; Grammar: Adjuncts (adverbs) – definition, functions, types (place, time, manner, reason, degree)
	General Mathematics	Mensuration I – length of arcs of circles: arc length = (θ/360) × 2πr; sectors and segments of a circle; perimeter of sector; practical examples
	Citizenship & Heritage Studies	Global citizenship – meaning, rights and responsibilities of a global citizen; effects of globalization on Nigerian identity and values
	Digital Technologies	Word processing applications – Microsoft Word / Google Docs: advanced formatting (styles, headers/footers, table of contents, mail merge, track changes)
	Biology	Micro-organisms in action – roles of microorganisms in fermentation (yeast, bacteria); decay and decomposition; food spoilage; diseases caused by microorganisms

	Chemistry	Introduction to organic chemistry – meaning; characteristics of organic compounds (contain carbon); difference from inorganic chemistry; importance of organic chemistry
	Physics	Fluids at rest and in motion – pressure in fluids: P = ρgh; Pascal's principle and its applications (hydraulic press, brakes); Archimedes' principle (upthrust)
	Agricultural Science	Prospects of agricultural mechanisation – meaning of mechanisation; importance (increased output, reduced labour, timely operations); limitations (cost, maintenance, land tenure)
	Further Mathematics	Measures of location – mean (arithmetic mean of ungrouped and grouped data); mode and modal class; median of ungrouped and grouped data from frequency tables
	Geography	Population of Nigeria – size, distribution, and density; factors influencing population distribution (relief, rainfall, soil, economic activities); census figures and challenges
	Foods and Nutrition	Revision of Second Term topics; introduction to Third Term – special diets: diabetic diet (low sugar, high fibre), hypertensive diet (low sodium), diets for pregnant women
	Technical Drawing	Loci – definition and types; constructing locus of a point equidistant from two fixed points; locus equidistant from a line; parabola: definition and construction from directrix and focus
	TRADE: Computer Hardware & GSM Repairs	Maintenance of computer hardware – regular cleaning of CPU, fans, and vents; upgrading RAM and storage; replacing thermal paste; importance of preventive maintenance to extend device life
	TRADE: Livestock Farming	Cattle farming I – breeds of cattle: local (White Fulani, Zebu, Muturu) and exotic (Friesian, Hereford, Jersey); housing requirements; feeding (roughages and concentrates)
	TRADE: Beauty & Cosmetology	Introduction to makeup I – types of makeup: day makeup (natural and light), evening makeup (dramatic), bridal makeup, stage makeup; purposes and characteristics of each type
	TRADE: Horticulture & Crop Production	Introduction to crop production – definition of crop production; importance in Nigeria (food security, income, export); types of crops produced commercially in Nigeria

WEEK	SUBJECT	TOPIC / CONTENT
Week 2	**English Language**	Vocabulary: Antonyms (words nearly opposite in meaning) – cheerful/unhappy, sickly/healthy, harmonious/discordant, false/genuine, tough/tender; Listening Comprehension: identifying a speaker's style (expository, narrative, descriptive); Continuous Writing: record keeping – writing simple records of events

	General Mathematics	Mensuration II – area of sectors: A = (θ/360) × πr²; area of segments = area of sector – area of triangle; relationship between sector of a circle and curved surface of cone; practical applications
	Citizenship & Heritage Studies	Citizenship education in other countries – case studies: USA (Bill of Rights, civic duties), UK (constitutional monarchy, civic participation), Ghana and South Africa (post-independence citizenship models); lessons for Nigeria
	Digital Technologies	Spreadsheet applications I – MS Excel / Google Sheets: introduction to advanced formulas; cell referencing (absolute and relative); SUM, AVERAGE, MIN, MAX, COUNT; named ranges
	Biology	Towards better health – personal and environmental hygiene; sanitation; vaccination and immunization schedules; disease prevention strategies; WHO and NAFDAC roles in Nigeria
	Chemistry	Alkanes, alkenes, and alkynes – structures and general formulae; homologous series; properties of each group; examples (methane, ethene, ethyne); combustion reactions
	Physics	Gas laws (revision and extension) – Boyle's Law, Charles's Law, Pressure Law, General Gas Law, Ideal Gas Equation PV=nRT; solving combined gas law problems; Dalton's Law of Partial Pressures
	Agricultural Science	Sources of farm power – human power (hand tools), animal power (oxen, donkeys), mechanical power (tractors, generators), electrical power (solar, grid); advantages and limitations of each source
	Further Mathematics	Measures of location (continued) – deciles; percentiles; quartiles (Q1, Q2, Q3) of grouped and ungrouped data; cumulative frequency curves; finding quartiles graphically
	Geography	Resources of Nigeria – types: human resources (labour, entrepreneurship), natural resources (minerals, agricultural land, water, forests); distribution; importance; sustainable exploitation
	Foods and Nutrition	Special diets continued – diets for the sick and convalescent; diets for athletes and sportspeople; vegetarian and vegan diets; cultural and religious dietary restrictions in Nigeria
	Technical Drawing	Loci (continued) – hyperbola: definition and construction; ellipse: construction using pins-and-string method and trammel method; comparing conic sections (parabola, hyperbola, ellipse)
	TRADE: Computer Hardware & GSM Repairs	Software troubleshooting – diagnosing and fixing slow computers: checking startup programs, clearing cache, defragmenting HDD, updating drivers; removing malware using antivirus software; reinstalling Windows/OS

	TRADE: Livestock Farming	Cattle farming II – dairy vs beef cattle management; daily milking routines; milk handling and storage; beef fattening techniques; pasture management for cattle
	TRADE: Beauty & Cosmetology	Introduction to makeup II – tools and products for makeup application: brushes (foundation, contour, blush, eye), sponges, beauty blenders; makeup products (primer, foundation, concealer, setting powder, setting spray)
	TRADE: Horticulture & Crop Production	Classification of crops by life cycle – annual crops (maize, tomatoes – complete lifecycle in one year); biennial crops (carrots, onions – two-year cycle); perennial crops (mango, citrus, cocoa – live many years)

WEEK	SUBJECT	TOPIC / CONTENT
Week 3	**English Language**	Vocabulary: Synonyms (words the same in meaning) – quick/fast, strong/powerful, busy/engaged, brave/fearless, fearful/timid, enemy/foe; Spoken English: stress timing and voice modulation in continuous prose reading; Reading Comprehension: note-making from texts using headings and key words; Grammar: Adjuncts – further examples and usage in complex sentences
	General Mathematics	Surface area of solids – cube ($6s^2$) and cuboid ($2(lb+lh+bh)$); cylinder ($2\pi r^2 + 2\pi rh$) and cone ($\pi rl + \pi r^2$); prism and pyramid; use of correct standard formulas; worked examples and real-life applications
	Citizenship & Heritage Studies	International organizations and citizenship – United Nations (UN): structure, purpose, key agencies (UNICEF, WHO, UNESCO); African Union (AU); ECOWAS; Commonwealth of Nations; Nigeria's role in each
	Digital Technologies	Spreadsheet applications II – advanced functions: IF, COUNTIF, SUMIF, VLOOKUP; creating bar charts, pie charts, and line graphs; formatting charts; using spreadsheets to present scientific data
	Biology	Habitat – definition; types of habitats (aquatic: marine, estuarine, freshwater; terrestrial: forest, grassland, desert, marsh); characteristics of each habitat; organisms found in each
	Chemistry	Isomerism – meaning of isomerism; structural isomers (same molecular formula, different structural formulae); chain, position, and functional group isomers; examples from alkanes and alkenes
	Physics	Simple harmonic motion (SHM) – definition; characteristics (amplitude, period, frequency); examples (pendulum, spring); equations of SHM; energy changes in SHM
	Agricultural Science	Classification of crops – by use: food crops (cereals, legumes, roots and tubers, vegetables, fruits) and cash/industrial crops (cocoa, rubber, cotton, oil palm); by life cycle: annual, biennial, perennial

	Further Mathematics	Measures of dispersion – range; interquartile range (IQR = Q3 – Q1); mean deviation (MD = Σ|x – x̄|/n); variance (σ^2); standard deviation (σ = √variance); significance of each measure
	Geography	Basic concepts in map reading – definition of map; types of maps (topographic, sketch, atlas); scale (linear and ratio); direction (8 and 16 compass points, 3-figure bearings); conventional signs and symbols
	Foods and Nutrition	Food storage and safety – principles of safe food storage; temperature danger zone (5°C–60°C); FIFO method; labelling and dating; preventing cross-contamination in storage
	Technical Drawing	Loci in mechanism – loci of a simple crank mechanism; loci of a connecting rod; tracing locus points at equal intervals of crank rotation; drawing the locus path
	TRADE: Computer Hardware & GSM Repairs	Data recovery basics – causes of data loss (accidental deletion, hardware failure, corruption); using data recovery software (Recuva, TestDisk); backing up data to cloud and external drives; importance of regular backups
	TRADE: Livestock Farming	Cattle breeding and production – natural service vs artificial insemination (AI); signs of heat/oestrus in cattle; gestation period; calving; colostrum and its importance to calves; weaning
	TRADE: Beauty & Cosmetology	Makeup application I – foundation application techniques: liquid, cream, powder foundations; choosing the right shade; coverage levels (sheer, medium, full); blending techniques; baking and setting
	TRADE: Horticulture & Crop Production	Crop ecology – climatic requirements of major Nigerian crops (temperature, rainfall, sunshine hours); soil requirements (pH, texture, drainage); mapping crop zones in Nigeria (cocoa belt, groundnut belt, rubber belt)

WEEK	SUBJECT	TOPIC / CONTENT
Week 4	**English Language**	Listening Comprehension: listening for summary using key signal words (in addition, furthermore, however, despite, consequently, therefore); Reading Comprehension: passages on patriotism, corruption, privatization; Continuous Writing: speech writing – features (salutation, introduction, body, conclusion, vote of thanks); types (welcome, prize-giving, valedictory); Dictation
	General Mathematics	Volume of solids – cube (s^3) and cuboid (l×b×h); cylinder ($\pi r^2 h$) and cone ($\frac{1}{3}\pi r^2 h$); prism (base area × h) and pyramid (⅓ × base area × h); correct application of formulas; real-life word problems
	Citizenship & Heritage Studies	Protection of human rights – agencies: National Human Rights Commission (NHRC), civil society organisations (NGOs), the Judiciary; international courts (ICC, ICJ);

		how to report human rights abuses; recent cases in Nigeria
	Digital Technologies	Presentation software – PowerPoint / Google Slides: advanced slide design (master slides, themes, layouts); inserting multimedia (audio, video); animations and transitions; designing a scientific presentation for a Biology or Chemistry project
	Biology	Aquatic habitat – estuarine habitat: characteristics, salinity gradient, organisms (mangroves, mudskippers, oysters); freshwater habitat (pond, river): physical factors (temperature, light, pH, dissolved oxygen); organisms adapted to each
	Chemistry	Petroleum and petrochemicals – formation of petroleum (fossil fuel); fractional distillation of crude oil; fractions and their uses (LPG, petrol, kerosene, diesel, fuel oil, bitumen); petrochemicals and their importance to Nigeria's economy
	Physics	Projectile motion – definition; horizontal and vertical components of motion; equations of projectile: range ($R = u^2\sin 2\theta/g$), maximum height ($H = u^2\sin^2\theta/2g$), time of flight ($T = 2u\sin\theta/g$); worked examples
	Agricultural Science	Husbandry of selected crops – maize: land preparation, planting, spacing, weeding, fertilizing, harvesting; cassava: planting (stem cuttings), spacing, weed control, harvesting; yam: seed yam selection, staking, mounding, harvesting
	Further Mathematics	Measures of dispersion (continued) – variance and standard deviation of grouped data (using assumed mean method); coefficient of variation ($CV = \sigma/\bar{x} \times 100\%$); interpreting CV for comparison of data sets
	Geography	Map distances – measuring straight-line distances using scale; measuring curved distances using string/dividers; converting map distances to actual ground distances; practical exercises on topographic maps
	Foods and Nutrition	Food poisoning and prevention – causes of food poisoning (Salmonella, E. coli, Staphylococcus); symptoms; treatment; prevention through proper food handling, cooking temperatures, and personal hygiene
	Technical Drawing	Plane geometry (advanced) – constructing regular polygons (pentagon, hexagon, heptagon, octagon) using compass and ruler; inscribed and circumscribed circles of polygons; practical engineering applications
	TRADE: Computer Hardware & GSM Repairs	Building a simple computer from parts – selecting compatible components (CPU, motherboard, RAM, storage, PSU, case); connecting components step by step; installing OS; testing the assembled computer; troubleshooting assembly errors
	TRADE: Livestock Farming	Cattle diseases – major diseases: Foot and Mouth Disease (FMD), rinderpest, brucellosis, trypanosomiasis;

		symptoms, prevention (vaccination, quarantine), treatment; importance of veterinary services
	TRADE: Beauty & Cosmetology	Makeup application II – eye makeup: eyeshadow (blending, smoky eye); eyeliner (pencil, liquid, gel); mascara application; false lashes; lip makeup (lipstick, lip liner, gloss); completing the full face look
	TRADE: Horticulture & Crop Production	Land preparation for crop production – site clearing (manual, mechanical, chemical); primary tillage (ploughing); secondary tillage (harrowing, ridging); importance of proper land preparation for germination and root development

WEEK	SUBJECT	TOPIC / CONTENT
Week 5	**NOTE:** *Mid-term Examination Week. All subjects conduct formal mid-term examinations covering Weeks 1–4 content. Results should be discussed with students before proceeding.*	
	English Language	Mid-term examination – antonyms, synonyms (exact), stress timing, adjuncts, comprehension, speech writing, record keeping; objective and essay test
	General Mathematics	Mid-term examination – mensuration I & II (arcs, sectors, surface area, volume of solids); objective and structured questions
	Citizenship & Heritage Studies	Mid-term examination – global citizenship, citizenship in other countries, international organizations, protection of human rights; theory test
	Digital Technologies	Mid-term examination – advanced word processing, spreadsheets (functions/charts), presentation software; theory and practical test
	Biology	Mid-term examination – microorganisms in action, health and hygiene, habitats (types, characteristics, organisms); objective and essay test
	Chemistry	Mid-term examination – organic chemistry intro, alkanes/alkenes/alkynes, isomerism, petroleum and petrochemicals; objective and essay test
	Physics	Mid-term examination – fluids at rest/in motion (Pascal, Archimedes), gas laws (revision), SHM, projectile motion; objective and structured questions
	Agricultural Science	Mid-term examination – agricultural mechanisation, sources of farm power, crop classification, husbandry of maize/cassava/yam; theory test
	Further Mathematics	Mid-term examination – measures of location (mean, mode, median, quartiles, deciles, percentiles) and measures of dispersion (range, IQR, MD, SD, CV); test
	Geography	Mid-term examination – population of Nigeria, resources of Nigeria, map reading concepts (scale, direction, symbols), map distances; theory test

	Foods and Nutrition	Mid-term examination – special diets, food storage and safety, food poisoning; theory and practical evaluation
	Technical Drawing	Mid-term examination – loci (parabola, hyperbola, ellipse, crank mechanism), plane geometry (regular polygons); drawing test
	TRADE: Computer Hardware & GSM Repairs	Mid-term examination – maintenance, software troubleshooting, data recovery, building a computer; theory and practical assessment
	TRADE: Livestock Farming	Mid-term examination – cattle farming (breeds, dairy/beef, breeding, diseases); theory and practical assessment
	TRADE: Beauty & Cosmetology	Mid-term examination – makeup types, tools, foundation application, eye and lip makeup; theory and practical demonstration
	TRADE: Horticulture & Crop Production	Mid-term examination – crop production intro, classification by life cycle, crop ecology, land preparation; theory and practical test

WEEK	SUBJECT	TOPIC / CONTENT
Week 6	**English Language**	Vocabulary: Synonyms (words nearly the same in meaning) – securely/safely, guest/visitor, adore/admire, enquire/ask, permit/allow; Spoken English: Oral composition – expository speech (explaining a process or concept clearly); Grammar: Phrasal verbs Group I (come across, come in, come up with, come back, come out)
	General Mathematics	Area and volume of frustum – frustum of a cone: surface area and volume formulae; frustum of a pyramid; compound shapes combining frustum and other solids; real-life applications (buckets, funnels, hoppers)
	Citizenship & Heritage Studies	Cultural exchange and tourism – importance of cultural exchange for national cohesion and global understanding; tourism in Nigeria: ecotourism, heritage sites (Olumo Rock, Zuma Rock, slave trade monuments); tourism as revenue earner
	Digital Technologies	Database introduction – concept of a database; DBMS (Database Management System); types of databases (relational, flat file); tables, records, fields, primary keys; examples of databases in everyday life (hospital records, school databases)
	Biology	Terrestrial habitat – forest habitat: features (high rainfall, dense canopy, poor light penetration, high humidity); organisms (ferns, epiphytes, monkeys, snakes); adaptations of organisms to forest conditions
	Chemistry	Chemical reactions and types – combination (A + B → AB); decomposition (AB → A + B); single displacement (A + BC → AC + B); double displacement (AB + CD → AD + CB); redox reactions: oxidation and reduction; balancing redox equations

	Physics	Types of waves – classification: mechanical waves (need medium – sound, seismic waves) vs electromagnetic waves (no medium needed – light, radio, X-rays); transverse waves (EM waves, water waves) vs longitudinal waves (sound); wave properties: wavelength, frequency, speed, amplitude
	Agricultural Science	Pasture and forage crops – meaning; types of pasture (natural and artificial pasture, browse plants); examples of forage crops (elephant grass, guinea grass, stylosanthes, cowpea); importance in livestock feeding and land conservation
	Further Mathematics	Introduction to Operations Research (OR) – meaning and scope of Operations Research; history and development; models of OR: linear programming, transportation models, assignment models; formulating simple OR problems
	Geography	Map reduction and enlargement – techniques for reducing a map (using grid squares, representative fraction); techniques for enlarging a map; practical exercises; maintaining accuracy in scale changes
	Foods and Nutrition	Modern catering practices – food service in institutions (hospitals, schools, canteens); catering for large groups; portion control; HACCP (Hazard Analysis Critical Control Points); food safety regulations in Nigeria
	Technical Drawing	Axonometric drawing – types: isometric, dimetric, trimetric projections; comparison; drawing simple objects in isometric projection using isometric grid paper; dimensioning axonometric drawings
	TRADE: Computer Hardware & GSM Repairs	Introduction to networking hardware – setting up a LAN: connecting computers using a router; sharing files and printers on a network; introduction to network security (passwords, firewalls, access control)
	TRADE: Livestock Farming	Pasture and forage management for livestock – establishing and managing pasture; rotational grazing; hay making and silage production; supplementary feeding during dry season
	TRADE: Beauty & Cosmetology	Corrective makeup – makeup techniques for different face shapes (oval, round, square, heart, oblong): contouring to reshape; highlighting to enhance; colour correction using colour wheel principles
	TRADE: Horticulture & Crop Production	Planting operations in crop production – selecting quality seeds/planting materials; seed treatment (fungicide dressing, soaking); correct spacing (inter-row and intra-row); planting depth; timing relative to rainfall

WEEK	SUBJECT	TOPIC / CONTENT
Week 7	**NOTE:** *Mid-term Break Week. No formal lessons. Students rest and consolidate learning. Teachers prepare second half of term lesson notes and mark mid-term examination scripts for return to students.*	

	English Language	Mid-term break – no formal lesson. Students encouraged to read comprehension passages and practice speech writing on current affairs topics
	General Mathematics	Mid-term break – no formal lesson. Students encouraged to practice mensuration problems and frustum calculations
	Citizenship & Heritage Studies	Mid-term break – no formal lesson. Students encouraged to identify examples of civic participation and cultural exchange in their communities
	Digital Technologies	Mid-term break – no formal lesson. Students encouraged to explore database concepts using simple spreadsheets as flat-file databases
	Biology	Mid-term break – no formal lesson. Students encouraged to observe and record organisms in their local environment and identify the habitat type
	Chemistry	Mid-term break – no formal lesson. Students encouraged to identify examples of chemical reactions (combustion, rusting, fermentation) in their environment
	Physics	Mid-term break – no formal lesson. Students encouraged to observe wave phenomena in everyday life (water ripples, sound, light reflection)
	Agricultural Science	Mid-term break – no formal lesson. Students encouraged to visit a local farm and observe the crops grown and the farm management practices used
	Further Mathematics	Mid-term break – no formal lesson. Students encouraged to attempt real-life OR problems (e.g. maximising farm output given land and labour constraints)
	Geography	Mid-term break – no formal lesson. Students encouraged to practice map reading using local government/state maps
	Foods and Nutrition	Mid-term break – no formal lesson. Students encouraged to observe food safety and storage practices at home and in local markets
	Technical Drawing	Mid-term break – no formal lesson. Students encouraged to sketch everyday objects in isometric projection freehand
	TRADE: Computer Hardware & GSM Repairs	Mid-term break – no formal lesson. Students encouraged to observe computer and phone faults in their environment and think through the diagnostic approach
	TRADE: Livestock Farming	Mid-term break – no formal lesson. Students encouraged to observe livestock management practices on local farms or in their communities
	TRADE: Beauty & Cosmetology	Mid-term break – no formal lesson. Students encouraged to practice makeup looks at home using available products and observe professional techniques online

	TRADE: Horticulture & Crop Production	Mid-term break – no formal lesson. Students encouraged to observe planting patterns and crop conditions in nearby farms or gardens

WEEK	SUBJECT	TOPIC / CONTENT
Week 8	**English Language**	Continuous Writing: Speech writing revision – formal vs informal speeches; writing and delivering a welcome address and prize-giving speech; Vocabulary: Spelling of commonly misspelt words (accommodation, necessary, occurrence, maintenance, separate, exaggerate); Spoken English: Argumentative speech practice
	General Mathematics	Statistics I – need for statistics; sources of data (primary and secondary); methods of data collection (questionnaire, interview, observation, experiment); tabulation; frequency distribution tables; class intervals and class boundaries
	Citizenship & Heritage Studies	Contemporary issues in citizenship – migration: causes (economic, political, environmental) and effects (brain drain, remittances, social change); digital citizenship: online rights, responsibilities, and safety; climate change and Nigeria's environmental commitments (Paris Agreement)
	Digital Technologies	Practical database management – creating a simple database using MS Access or a spreadsheet: designing tables, entering data, creating queries to filter records, generating simple reports; applying databases to school scenarios (student records, library management)
	Biology	Grassland habitat – features (moderate rainfall, seasonal drought, open landscape, rich soil); biotic components (grasses, shrubs, zebras, lions, antelopes, termites); abiotic components (temperature, soil type, rainfall pattern); adaptations of organisms to grassland conditions; Nigerian savanna as a grassland example
	Chemistry	Energy changes in chemical reactions – exothermic reactions (release heat: combustion, neutralization, respiration); endothermic reactions (absorb heat: photosynthesis, dissolving ammonium nitrate); enthalpy (ΔH); Hess's Law (introduction); practical examples
	Physics	Properties of waves I – reflection of waves (law of reflection for waves); refraction (change of speed in different media); diffraction (bending around obstacles); interference (constructive and destructive); applications of each in sound and light
	Agricultural Science	Plant nutrients and the nutrient cycle – macronutrients (N, P, K, Ca, Mg, S) and micronutrients (Fe, Mn, Zn, Cu, B, Mo); nitrogen cycle (fixation, nitrification, denitrification); carbon cycle; importance of nutrient cycling to soil fertility
	Further Mathematics	Models in Operations Research – practical application of linear programming (maximising profit, minimising cost);

		transportation problem: finding initial feasible solution using North-West Corner Method and Least Cost Method; introduction to assignment models
	Geography	Interpretation of physical and cultural features from topographic maps – relief features (hills, valleys, escarpments, ridges); drainage features (rivers, lakes, swamps); cultural features (settlements, roads, railways, land use); interpreting contour patterns
	Foods and Nutrition	Nigerian dishes practical – preparation of popular Nigerian dishes: pounded yam and egusi soup; jollof rice; moin moin; practical cooking session with emphasis on correct technique, hygiene, and presentation
	Technical Drawing	Engineering drawing standards – title block; border lines; folding of drawing sheets; revision of drawing conventions; introduction to Computer-Aided Design (CAD): meaning, advantages, examples (AutoCAD, SolidWorks); comparing manual and CAD drawing
	TRADE: Computer Hardware & GSM Repairs	Computer power supply unit (PSU) – function of PSU; types (ATX, SFX); testing a PSU with a multimeter; diagnosing power supply faults; replacing a faulty PSU safely; surge protectors and UPS systems
	TRADE: Livestock Farming	Goat and sheep farming – breeds of goats (West African Dwarf, Red Sokoto, Boer); breeds of sheep (Yankasa, Uda, Balami); housing; feeding; health management; uses of goat and sheep products (meat, milk, wool, skin)
	TRADE: Beauty & Cosmetology	Traditional and cultural makeup – Nigerian ethnic beauty styles: Yoruba bridal makeup, Hausa henna and kohl, Igbo uli and uri body art; festival and ceremonial makeup; importance of preserving traditional beauty heritage
	TRADE: Horticulture & Crop Production	Maintenance of crops – thinning (removing excess seedlings); mulching (covering soil to retain moisture, reduce weeds); pruning (removing unwanted branches to improve yield); staking (supporting climbing plants like tomatoes, yam)

WEEK	SUBJECT	TOPIC / CONTENT
Week 9	**English Language**	Continuous Writing: Newspaper articles – features of a newspaper article: headline, by-line, dateline, lead paragraph, body, conclusion; differences from speeches and letters; writing an article on a current issue (education, health, environment); Listening Comprehension: listening for summary; Reading Comprehension: summary passages; Dictation from selected passages
	General Mathematics	Statistics II – frequency distribution continued; graphs: line graphs (plotting trends over time); bar charts (vertical and horizontal); histograms (area represents frequency, no gaps); frequency polygons; ogive (cumulative frequency curve); using graphs to interpret data

	Citizenship & Heritage Studies	Patriotism – meaning (love for one's country); importance of patriotism for national development; examples of patriotism in Nigerian history (Nnamdi Azikiwe, Obafemi Awolowo, Wole Soyinka, ordinary Nigerians); ways students can show patriotism today
	Digital Technologies	Emerging technologies I – Artificial Intelligence (AI): types (narrow AI, general AI); machine learning basics; AI applications (healthcare diagnostics, autonomous vehicles, chatbots, recommendation systems); ethical considerations; AI tools available to Nigerian students
	Biology	Reproduction in unicellular organisms and invertebrates I – asexual reproduction: binary fission in Amoeba and Paramecium (cell division stages); budding in Hydra (bud formation, detachment); spore formation in Rhizopus (bread mould); advantages of asexual reproduction
	Chemistry	Rates of chemical reactions – meaning of reaction rate; factors affecting rate: concentration (rate increases with concentration), temperature (10°C rule), surface area, catalyst, light; collision theory; practical demonstrations
	Physics	Properties of waves II – superposition of waves; principle of superposition; constructive and destructive interference; standing (stationary) waves; resonance: meaning, conditions, examples (musical instruments, Tacoma bridge collapse); resonance in sound columns
	Agricultural Science	Irrigation – definition; types: surface irrigation (furrow, flood, basin), sprinkler irrigation, drip/trickle irrigation; advantages and disadvantages of each; importance of irrigation for food production in Nigeria's dry regions
	Further Mathematics	Applications of OR models – real-life problem solving: a farmer wants to maximise profit from two crops given land, labour, and capital constraints; formulate and solve graphically; sensitivity analysis (what if costs change); transportation model worked example
	Geography	Transportation – modes: road (most common in Nigeria – advantages and challenges), rail (Nigerian railway network – decline and revival), water (Niger Delta, Lagos ports), air (international and domestic airports); importance of transportation to economic development
	Foods and Nutrition	International dishes practical – preparation of simple international dishes: spaghetti bolognese, fried rice (Chinese-style), vegetable salad with dressing; food culture, international table manners; fusion cooking concepts
	Technical Drawing	Third angle projection practice – drawing three views (front, side, plan) from a pictorial view; adding dimensions; interpreting engineering drawings; reading a simple engineering component drawing – practical exercises
	TRADE: Computer Hardware & GSM Repairs	Introduction to networking (advanced) – IP addresses (IPv4 and IPv6); subnet masks; DHCP and DNS; configuring a basic home network; troubleshooting

		common network issues (no internet, slow connection, IP conflict); cybersecurity basics (firewall, VPN)
	TRADE: Livestock Farming	Pig farming – breeds of pigs in Nigeria (Large White, Landrace, Duroc, local breeds); housing (deep litter vs concrete pen); feeding (swill, commercial feeds, foraging); breeding; common pig diseases (African Swine Fever, porcine parvovirus); marketing pork products
	TRADE: Beauty & Cosmetology	Cosmetic chemistry – basic ingredients in cosmetics: emulsifiers, preservatives, humectants, surfactants, fragrances; natural vs synthetic cosmetic ingredients; reading product labels; understanding expiry dates; patch testing for allergies
	TRADE: Horticulture & Crop Production	Crop protection using integrated pest management (IPM) – IPM principles: prevention, monitoring, biological control (predator insects, Bacillus thuringiensis), cultural control (crop rotation, resistant varieties), chemical control (pesticides as last resort); recording pest pressure

WEEK	SUBJECT	TOPIC / CONTENT
Week 10	**English Language**	Vocabulary: Commonly misspelt words II – spelling drills using dictionary (necessary, recommend, achieve, committee, embarrass, privilege, rhythm, secretary, liaison); Spoken English: Debate practice – topic: 'Women make better leaders than men'; Continuous Writing: Articles on current issues; Grammar: Phrasal verbs Group II (put off, put on, give up, take off, take in, bring back, call off, look after, look into); General revision and test
	General Mathematics	Statistics III – pie charts (drawing and interpreting: calculating angles from percentages); frequency polygons (midpoints, joining frequency values); revision of all statistics topics (data collection, tabulation, bar charts, histograms, pie charts, ogive); general revision and test
	Citizenship & Heritage Studies	Civic participation – meaning and forms: voting (importance of the voter's card, electoral process), community service, volunteering, public opinion, peaceful protest, petitions, decision-making at community level; how SS1 students can participate civically now; general revision and test
	Digital Technologies	Emerging technologies II – Robotics: meaning, types (industrial, domestic, medical), applications in Nigeria; Virtual Reality (VR) and Augmented Reality (AR): differences and uses (education, healthcare, entertainment, training); future of technology in Nigeria; general revision and test
	Biology	Reproduction in unicellular organisms and invertebrates II – sexual reproduction in invertebrates: earthworm (hermaphrodite – mutual fertilization), Hydra (sexual – gamete formation), flatworm; comparison of asexual and

		sexual reproduction; advantages of sexual reproduction (genetic variation); general revision and test
	Chemistry	Reversible reactions and chemical equilibrium – meaning of reversible reactions; dynamic equilibrium; Le Chatelier's Principle: effect of concentration, temperature, and pressure changes on equilibrium; Haber Process and Contact Process as industrial applications; general revision and test
	Physics	Properties of waves III – real-life applications of wave properties: reflection (echo, sonar, radar), refraction (mirage, lenses, optical fibre), diffraction (radio waves around hills, single-slit diffraction), interference (thin film, Newton's rings, noise-cancelling headphones); revision of all wave topics; general revision and test
	Agricultural Science	Agricultural pollution and drainage – meaning of agricultural pollution; causes (pesticide runoff, fertilizer leaching, animal waste); effects on soil, water, and human health; control measures; drainage: meaning, types (surface, sub-surface), importance for waterlogged soils; general revision and test
	Further Mathematics	General revision of all Third Term topics – measures of location and dispersion (mean, mode, median, quartiles, SD, CV), Operations Research (LP, transportation, assignment); comprehensive revision exercises; general revision and test
	Geography	Surveying and simple fieldwork – basic surveying: chain survey, prismatic compass survey; simple field measurements; recording and presenting field data; general revision of all Third Term topics (population, resources, map reading, interpretation, transportation); general revision and test
	Foods and Nutrition	General revision of all Third Term topics – special diets, food storage and safety, food poisoning, catering practices, Nigerian and international dishes; comprehensive practical evaluation; theory revision test
	Technical Drawing	General revision of all Third Term topics – loci (parabola, hyperbola, ellipse, crank), plane geometry (polygons), axonometric drawing, engineering drawing standards, CAD, third angle projection; drawing test and theory test
	TRADE: Computer Hardware & GSM Repairs	Comprehensive revision and final practical assessment – all Third Term topics: hardware maintenance, software troubleshooting, data recovery, building a computer, PSU, advanced networking; complete a full computer diagnosis, repair, and setup task; theory and practical final test
	TRADE: Livestock Farming	General revision and final practical assessment – all Third Term topics: cattle (breeds, dairy, beef, breeding, diseases), pasture management, goat/sheep farming, pig farming; identify breeds and diseases; demonstrate a farm management task; theory and practical final test

	TRADE: Beauty & Cosmetology	General revision and final practical assessment – all Third Term topics: makeup types, tools, foundation, eye/lip makeup, corrective makeup, cultural makeup, cosmetic chemistry, skin disorders; complete a full makeup application; theory and practical final test
	TRADE: Horticulture & Crop Production	General revision and final practical assessment – all Third Term topics: crop production, crop classification, ecology, land preparation, planting, crop maintenance, IPM; demonstrate a practical skill (planting, pruning, or pest scouting); theory and practical final test

THIRD TERM SUBJECT OVERVIEW

SUBJECT	THIRD TERM FOCUS AREAS
English Language	Antonyms (exact and near opposites), Synonyms (same and near-same meaning), Adjuncts/Adverbs (types/functions), Spoken English (stress timing, voice modulation, expository/argumentative speech, debate), Comprehension (note-making, summary), Phrasal Verbs (Groups I & II), Continuous Writing (record keeping, speech writing, newspaper articles), Spelling Drills
General Mathematics	Mensuration I (arc length, sectors, segments), Mensuration II (area of sectors/segments, sector-cone relationship), Surface Area of Solids (cube, cuboid, cylinder, cone, prism, pyramid), Volume of Solids, Area & Volume of Frustum (cone and pyramid), Statistics I–III (data collection, tabulation, frequency distribution, bar charts, histograms, pie charts, frequency polygons, ogive)
Citizenship & Heritage Studies	Global Citizenship (rights, responsibilities, globalization), Citizenship in Other Countries (USA, UK, Ghana, SA), International Organizations (UN, AU, ECOWAS, Commonwealth), Protection of Human Rights (NHRC, NGOs, courts), Cultural Exchange & Tourism, Contemporary Issues (migration, digital citizenship, climate change), Patriotism, Civic Participation
Digital Technologies	Advanced Word Processing (mail merge, track changes, table of contents), Spreadsheet Applications I & II (advanced formulas, charts), Presentation Software (master slides, multimedia, scientific presentations), Database Introduction (DBMS, tables, fields, records), Practical Database Management (queries, reports), Emerging Tech I (AI, machine learning), Emerging Tech II (Robotics, VR, AR)
Biology	Micro-organisms in Action (fermentation, decay, food spoilage, diseases), Towards Better Health (hygiene, sanitation, vaccination, NAFDAC), Habitats (types: aquatic – estuarine and freshwater; terrestrial – forest, grassland), Grassland Habitat (features, organisms, adaptations), Reproduction in Unicellular Organisms & Invertebrates I & II (binary fission, budding, spore formation, sexual reproduction in earthworm/Hydra/flatworm)
Chemistry	Intro to Organic Chemistry (characteristics of organic compounds), Alkanes/Alkenes/Alkynes (structures, homologous series, combustion), Isomerism (structural: chain, position, functional group), Petroleum & Petrochemicals (fractional distillation, fractions and uses), Chemical Reactions & Types (combination, decomposition, displacement, redox), Energy Changes (exothermic/endothermic, Hess's Law intro), Reaction Rates (factors, collision theory), Reversible Reactions & Equilibrium (Le Chatelier's Principle, Haber/Contact Process)

Physics	Fluids at Rest & in Motion (pressure in fluids, Pascal's principle, Archimedes' principle, Bernoulli's principle), Gas Laws Revision & Extension (Dalton's Law of Partial Pressures), SHM (amplitude, period, frequency, energy changes), Projectile Motion (range, max height, time of flight), Types of Waves (mechanical/EM, transverse/longitudinal), Properties of Waves I (reflection, refraction, diffraction, interference), Properties of Waves II (superposition, standing waves, resonance), Properties of Waves III (real-life applications)
Agricultural Science	Agricultural Mechanisation (meaning, benefits, limitations), Sources of Farm Power (human, animal, mechanical, electrical, solar, wind, water), Crop Classification (food/cash/industrial; annual/biennial/perennial), Crop Husbandry (maize, cassava, yam – from planting to harvest), Pasture & Forage Crops (types, importance), Plant Nutrients & Nutrient Cycles (macro/micro nutrients, N-cycle, C-cycle), Irrigation (types: surface, sprinkler, drip), Drainage (types, importance), Agricultural Pollution (causes, effects, control)
Further Mathematics	Measures of Location (mean, mode, median, deciles, percentiles, quartiles – ungrouped and grouped data; cumulative frequency curves), Measures of Dispersion (range, IQR, mean deviation, variance, standard deviation, coefficient of variation), Operations Research Intro (LP, transportation models, assignment models), Models in OR (North-West Corner, Least Cost Method), Applications of OR (real-life problem solving)
Geography	Population of Nigeria (size, distribution, density, factors), Resources of Nigeria (human and natural; distribution; conservation), Basic Map Reading Concepts (scale, direction, symbols, conventional signs), Map Distances (straight-line and curved), Map Reduction & Enlargement (techniques, practical exercises), Interpretation of Physical & Cultural Features (relief, drainage, settlement), Transportation (road, rail, water, air; importance), Surveying & Simple Fieldwork
Foods and Nutrition	Special Diets (diabetic, hypertensive, pregnant women, athletes, vegetarian, religious diets), Food Storage & Safety (FIFO, temperature zones, labelling, cross-contamination), Food Poisoning & Prevention (Salmonella, E.coli; cooking temperatures), Modern Catering Practices (HACCP, institutional catering, portion control), Nigerian Dishes Practical, International Dishes Practical
Technical Drawing	Loci (types, construction: parabola, hyperbola, ellipse, crank mechanism, connecting rod), Plane Geometry Advanced (regular polygons: pentagon, hexagon, heptagon, octagon; inscribed/circumscribed circles), Axonometric Drawing (isometric, dimetric, trimetric), Engineering Drawing Standards (title block, borders, sheet folding), Introduction to CAD (AutoCAD/SolidWorks; manual vs CAD), Third Angle Projection Practice (3 views, dimensioning, reading engineering drawings)
TRADE: Computer Hardware & GSM Repairs	Hardware Maintenance (cleaning, upgrading, thermal paste), Software Troubleshooting (slow PC, malware removal, OS reinstallation), Data Recovery (recovery software, backup strategies), Building a Computer (component selection, assembly, OS install), PSU (types, testing, replacement, UPS), Advanced Networking (IP addresses, DHCP, DNS, troubleshooting, cybersecurity basics, VPN), Final Comprehensive Practical Assessment
TRADE: Livestock Farming	Cattle Farming I & II (breeds, housing, feeding, dairy vs beef), Cattle Breeding (AI, oestrus, calving, colostrum, weaning), Cattle Diseases (FMD, brucellosis, trypanosomiasis, vaccination), Pasture & Forage Management (rotational grazing, silage, hay, dry season supplements), Goat & Sheep Farming (breeds, housing, health, products), Pig Farming (breeds, housing, diseases, marketing), Final Comprehensive Practical Assessment

TRADE: Beauty & Cosmetology	Makeup Types (day, evening, bridal, stage), Tools & Products (brushes, sponges, primers, foundations, powders), Makeup Application I (foundation: coverage, blending, baking), Makeup Application II (eye makeup, lip makeup, completing the full look), Corrective Makeup (face shapes, contouring, highlighting, colour correction), Traditional & Cultural Makeup (Yoruba, Hausa, Igbo styles; festival makeup), Cosmetic Chemistry (ingredients, natural vs synthetic, patch testing), Skin Disorders & Management, Final Practical Assessment
TRADE: Horticulture & Crop Production	Introduction to Crop Production (definition, importance, commercial crops in Nigeria), Classification by Life Cycle (annual, biennial, perennial), Crop Ecology (climatic and soil requirements, crop zones), Land Preparation (clearing, ploughing, harrowing, ridging), Planting Operations (seed selection, treatment, spacing, depth, timing), Maintenance of Crops (thinning, mulching, pruning, staking), IPM & Crop Protection (prevention, biological, cultural, chemical control), Harvesting of Field Crops (timing, methods, tools), Final Practical Assessment

Important Notes: *Week 5 = Mid-term Examination (all subjects). Week 7 = Mid-term Break. Week 11 = Final General Revision (all subjects). Week 12 = End-of-Year Examination (objective and theory papers). Week 13 = Marking, result compilation, prize-giving, promotion assembly, and school closing. Trade subjects require written and practical assessment at mid-term and end of year.*

Abbreviations: SSEC = Senior Secondary Education Curriculum | NERDC = Nigerian Educational Research and Development Council | SHM = Simple Harmonic Motion | IPM = Integrated Pest Management | OR = Operations Research | LP = Linear Programming | HACCP = Hazard Analysis Critical Control Points | CAD = Computer-Aided Design | NHRC = National Human Rights Commission | VR = Virtual Reality | AR = Augmented Reality | AI = Artificial Intelligence

Sources: New NERDC Approved SSEC 2025 | itsmyschoollibrary.wordpress.com (SS1 Third Term – published April 22, 2026 – official NERDC-aligned) | NERDC Executive Secretary official notice (nerdc.org.ng, September 8, 2025) | schemeofwork.com SS1 Unified Scheme | For SS1 Science students from the 2025/2026 session onwards.

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